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College Students' memory of the imposed social norm of their Texas high school: A replication of Gelfand's tightness-looseness study

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College Students' memory of the imposed social norm of their Texas high school: A replication of Gelfand's tightness-looseness study

by

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Dedication

I want to thank my family for your love, support, and patience by dedicating this thesis to you.

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I would like to recognize the tireless work of Diane Schallert during this entire thesis writing process. Her guidance and reassurance has truly helped, shaped, and impacted me greatly.

Abstract

College Students' memory of the imposed social norm of their Texas high school: A replication of Gelfand's tightness-looseness study

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Using Texas undergraduates' memory of high school social norms (n = 88), I attempt to determine the replicability of Gelfand et al.'s (2011) research on the tightness-looseness scores of 33 nations. Tightness-looseness refers to a complex model in which cultural social norms are explicated. "Tight" cultures indicate strong social norms where members perceive larger pressures for conformity. These pressures result in higher levels of self-monitoring and regulation. Conversely, "loose" cultures signify weaker social norms and a higher tolerance for atypical conduct. My research confirms that the tightness-looseness model can be applied to school environments because my research revealed a tightness-looseness mean score of 4.3, which is near the midpoint of the six-point scale. Gelfand et al.'s (2011) research (n = 6,823) revealed that the United State had a tightness-looseness score, 5.4, which was near the middle of the range of scores for the 33 nation samples, which ranged from 1 to 12.3. However, my research discovered no significant effects of tightness-looseness on demographic variables, or on the Behavior or

Situation Measures. These non-significant findings do not necessarily preclude the concepts discussed here from future research. Rather, future research should include comparison groups from different educational environments and a larger sample size reflective of Gelfand et al. (2011).

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Chapter 1

Introduction and Rationale

In Culture's Consequences, Geert Hofstede quotes Blaise Pascal, "there are truths on this side of the Pyrenees which are falsehoods on the other." I want to know what happens when someone lives on one side and goes to school on the other.

The present thesis posits the necessary importance of researching and considering culture in educational environments. Educational systems are and exist in multifaceted contexts. An educational system indicates an organization in which individuals within a society, typically youth and emergent adults, are expected to learn relevant and/or required curriculum. Those with a learning role can expect evaluation over taught curriculum through educators. These educators traditionally impart information to the learner, or student, through various instructional techniques or pedagogies. The context in which instruction and learning occurs varies by geography, time, culture, and countless additional variables. The nature of context and environment is fluid in that it changes throughout time, place, and the individual and group interpretations of the context. However, it also is constant in that there is always a form of context in some capacity. The indefiniteness of context challenges any attempt to study a phenomenon.

Even though single models are at times simplistic and problematic in that biases are often reductive of counterarguments, I find models can provide valuable insights concerning specific aspects of an idea. For instance, one such view of cultural context is represented in the tightness-looseness scale. This research was begun in an attempt to replicate a single methodology within a new context. The purpose of my research was to apply Gelfand et al.'s work with cultural paradigms and a tightness-looseness cultural model to school environments. Gelfand et al. (2011) scaled 33 nations and rated them

according to their tightness and looseness. As Gelfand et al. described, “nations that are ‘tight’—have strong norms and a low tolerance of deviant behavior—and those that are ‘loose’ have weak norms and a high tolerance of deviant behavior” From (Gelfand et al., 2011, p. 1100). Reprinted with permission from AAAS. Gelfand et al.’s tightness-looseness model combined “distal ecological and historical threats,” everyday situations and recurrences, and “micro-level psychological affordances” and hypothesized that cultural tightness and looseness is determined by the strength of daily situations From (Gelfand et al., 2011, p. 1100). Reprinted with permission from AAAS. Additionally, Gelfand et al. argued that the strength of social regulation on a macro level is reflected at the individual micro level in the form of self-regulation. They surveyed 6,823 people across 33 different nations. The results showed a span in the tightness-looseness scores from 1.6 in Ukraine to 12.3 in Pakistan. The United States produced a score of 5.1 with the most comparable score, 5.4, assigned to Spain. They also developed the figure below (Figure 1.1) to highlight both the distal and proximal factors in cultural processes. These factors include distal ecological and historical threats (resource scarcity and human diseases), socio-political institutions (government and education), strength of norms, and the tolerance of deviant behavior influencing and being influenced by proximal processes like recurrent episodes (everyday situations) and psychological adaptations (self-regulation among others) From (Gelfand et al., 2011, p. 1102) Reprinted with permission from AAAS.

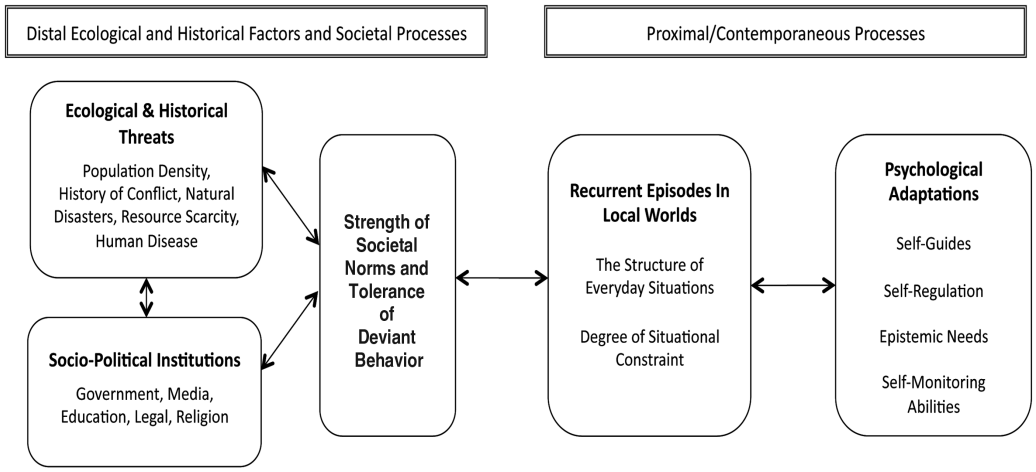

Figure 1.1: Gelfand et al. (2011) Distal and Proximal Processes. From (Gelfand et al., 2011, p. 1102) Reprinted with permission from AAAS.

The tightness-looseness model rationally could be another method in the attempt to understand schools and classroom cultures, other large-scale educational contexts, and how instruction and learning might be effectively bettered. Indeed, Gelfand et al. (2011) concluded by suggesting the basic principles be applied to other levels like regions. Because of this, educational systems might also have the potential of being rated on the tightness-looseness cultural model. Items within Gelfand et al.'s (2011) research specified and measured classrooms as an environment in which tightness and looseness might influence behavior and self-monitoring. From this, I thought that individuals' responses could be aggregated to reflect perceptions of educational climates.

The guiding research questions were: can Gelfand et al.'s (2011) tightness-looseness model be replicated with Texas undergraduates' memory of high school rather than nations as used in the original research? If statistical significances are discovered in Texas undergraduates' memories, what might be the mechanism through which they occur? Do different populations differ in tightness-looseness, based on demographic data?

For this study, I employed a three-part online survey asking the participants to rate how socially acceptable different situations were under different contextual constraints or hypothetical situations when they were in high school. The participants came from Department of Educational Psychology Subject Pool at the University of Texas at Austin. I requested the participants' demographic information because I was interested in what types of secondary schooling they had attended and in which region of the world. However, all data were anonymous. I aggregated these subscale scores and compared them with Gelfand et al.'s model of tightness and looseness.

In this thesis, I will first review the current literature on cultural models and the environment, the self, and the self and education, respectively. Then, I will discuss the research methodology before going on to data results. Finally, I will conclude with implications for future research, limitations of the presented research, and a general discussion from the data analysis.

Chapter 2

Literature Review

CULTURAL MODELS AND THE ENVIRONMENT

The term *culture* is difficult to conceptualize insofar as it is a dynamic and subjective idea. Labeling aspects of culture, including social norms, behaviors, beliefs, artifacts, relationships, values, attitudes, shared meanings, rituals, and habits, is less challenging because these aspects are evident in daily life (Triandis, 2006). Elements of culture, or memes, are "replicating entities" and can include a "word, tune idea, clothes…etc." (Dawkins, 1989; Triandis, 2006, p. 208). Ultimately, operationalizing what culture is and what it means to the individuals who do not share that culture can assist in developing our understanding of aspects of culture.

Another method by which to conceptualize culture is to develop idiosyncratic and multidimensional paradigms and assign labels to nuanced differences and similarities. At the present, there are many models in the field of research, and many academics and researchers who are focused on identifying cultural differences and similarities. There are several diverse models useful in understanding culture.

For example, Hofstede's (1980, 1986) Four Dimensional model includes four measures of culture: Individualism/Collectivism, Power Distance, Uncertainty Avoidance, and Masculinity/Femininity. Individualism contrasts collectivism in how the person within a culture behaves and where lies the focus of the behavior. For instance, an individual within an individualistic culture is presumed to be interested in his or her personal needs and those of his or her immediate surroundings, like family. Contrastingly, individuals from a collectivistic culture are presumed to belong and be

attached to their immediate surrounding, family, and "in group" and do not habitually or easily separate themselves from that group.

The second dimension, power distance, describes people from a culture's perception and tolerance of inequality (Hofstede, 1980; 1986). Cultures with low power distance are actively engaged with promoting equality whereas cultures with a high power distance are more complacent with established inequalities. Hofstede argues inequality is present in every culture yet "the degree of [inequality] that is tolerated varies between one culture and another" (Hofstede, 1980; 1986, p. 307).

Thirdly, cultures are marked by an uncertainty avoidance measure, which determines to what extent the unknown is seen as necessarily negative (Hofstede, 1980; 1986). These unknowns could be "unstructured, unclear, or unpredictable situations" and can occur in any culture through war, famine, drought, political turmoil, or other similar situations (Hofstede, 1986, p. 308). However, uncertainty avoidance refers to how individuals are socialized to respond in the event of uncertain situations. A high level of uncertainty avoidance within a culture promotes high levels of self-monitoring, sustaining firm behavioral norms, intolerance, impulsivity, and emotionality. A low level supports more calm behaviors, less emotionality and reactivity, and more contemplativeness and "accepting of personal risks" (Hofstede, 1980; 1986, p. 308).

Finally, the fourth dimension refers to the degree to which a culture is masculine or feminine. This measure concerns culturally expected social roles for men and women. Masculine cultures expect men to be confident, spirited, to place value on material goods, and respect anything that is "big, strong, and fast" (Hofstede, 1980; 1986, p. 308). Masculine cultures expect women to serve and care for the culturally perceived weak members. Conversely, in feminine cultures the social roles for men and women more frequently intersect and are not as readily or rigidly defined.

A similar cultural model was developed by Triandis (2006) that, like Hofstede's 4-D model illustrated above, has four dimensions: Complexity, Tightness, Collectivism, and Individualism. Complexity refers to the industrial development of a culture, and its greatest contrast could be conceptualized as between "hunter/gatherers and information" cultures (Triandis, 2006, p. 209). This notion is problematic in that it attributes more non-industrial cultures have fewer complexities and are therefore less developed. Being less developed implies that being developed is more highly valued and should be for what individuals strive. Triandis provided different indices to measure the complexity of a culture: gross national product per capita, personal computers per capita, urban population percentages, among others.

Triandis (2006) argued that members of a complex culture have equivalently complex cognitions and that members from a less complex, or simple, culture have simpler cognitive abilities than complex members. This application of a cultural concept to the intellect of a society seems problematic, reductive, and ethnocentric. What is defined as valued knowledge and learning is very much culture-bound, and thus, impossible to determine "objectively." An individual from a rural, less complex culture may know the nuances of agriculture or pastoralism rather than the best bus line to take to work. Additionally, simply because an individual originates in a cosmopolitan culture does not necessarily denote high levels of cognitive abilities.

The tightness of a culture reflects how much self-monitoring is socialized in different situations and environments, and how strongly social norms are enforced (Triandis, 2006). In tight cultures, members very strictly enforce social norms whereas the members of loose cultures are less likely to and less strictly require adherence to social norms. Later, Gelfand used this model to research the tightness of 33 nations (Gelfand, 2011). Boldt (1978) argued that anthropologists have been using the term

"tight" when describing countries for a long time and that tight cultures are strict and orderly and loose cultures are more individualistic and animated. Boldt also argued that in tight cultures, the meaning of objects is predetermined by the culture. In the following section, I will highlight how objects can assist in learning (Wertsch, 1991).

The third and fourth aspects of Triandis' model are Individualism and Collectivism. Triandis (2006) argued that collective cultures are also relatively simple and tight. Individuals within collectivistic cultures are interdependent with, give priority to, and shape personal behaviors on their in-group (Berry, 1989; Hofstede, 1980; Kagitcibasi &; Markus and Kitayama, 1991; Suh et al., 1998; Triandis, 1990; Triandis, 1995; Triandis, 2006). Markus and Kitayama (1991) stated the in-group could involve collectives such as families, tribes, and nations. The individual gives priority of the group above his or her own desires and even when the individual no longer wants membership in that group, it may not be possible for the person to leave (Triandis, 2006). Triandis then detailed the qualities and values of individualistic cultures as self-determined, creative, emotionally distant, intelligent, and persistent (Triandis & Suh, 2002; Triandis, 2006). Additionally, Triandis stated that persons in individualistic cultures are more likely to attribute behaviors to internal characteristics rather than situated circumstances. Ultimately, Triandis claimed "the data show that social health, life expectancy and general satisfaction are high in societies that are high in individualism, low in power distance, and where people behave in a 'tight' way, but value 'looseness'" (Triandis, 2006, p. 213).

CULTURE AND THE SELF

Because it is "increasingly commonplace for people from disparate cultures to interact with each other" (Probst, 1999, p. 172) and that "most learning in most settings is a communal activity, a sharing of the culture" (Bruner, 1982, p. 845), how the self

interacts with and is shaped by cultures is widely studied. Schwartz (1994) stated that people's values and interests are a product of socialization and help to continue the welfare of the society's cultural institutions (Schwartz, 1994). As a foundation to such claims, Vygotsky (1978) argued that a community is an agent in an individual's meaning making and that learning occurs first externally and is then internalized. Later, Wertsch (1991) recounted Vygotsky's work and detailed the constructs of the more knowledgeable other (MKO) and the zone of proximal development (ZPD) as models of this social learning. The MKO assists the learner in crossing through the ZPD to make meaning and can be represented by a person or cultural tool like a book. Wertsch claimed that all social interactions are located in a cultural context. However, Panofsky (2003) argued that the focus of internal strategies and what comprises particular cultural activities and values are different across cultures and can contribute to differential motivation, agency, and learning for students. Wertsch argued that an individual could resolve a conflict with use of meditational tools provided and developed by the individual's culture. Ultimately, the literature reflects how essential culture is for an individual's learning.

In 1982, Bruner compared culture to a form of meaning making in that it negotiates "explicating action" and sets specifications for action. For example, a member of a culture makes his or her knowledge for themselves and within a community of individuals who share a sense of belonging to their culture. Bruner termed this "joint culture" in that the members of a culture share in being constructed to become an adult member of that particular society.

Culture is related to education and learning in many ways. For example, motivation is a key point of contact between culture and students' learning. In a review of the field Pintrich (2003) highlighted an individual is motivated because of the utility

of an activity. However, utility can be culturally subjective because the value of an activity is shaped by the individual's culture (Triandis, 1995). Hulleman et al. (2008) continued this rationale in that through exposure and experience, an individual can develop utility for an activity. This experience can aid in the development of value and is dependent upon a culture in that experiences are situated within a cultural context.

Similarly, culture is critical to shaping individuals' adoption of different goal orientations (Pintrich, 2006). In their Self-Determination Theory (SDT), Ryan and Deci (2000) argued that factors can threaten the development of intrinsic motivation by way of social contextual conditions on individuals' fulfillment of needs for competence, autonomy, and relatedness that are essential for sustaining intrinsic motivation.

Ultimately, it appears as though motivation can affect learning. If this is the case, and if cultures diverge in the way the "school, as an institution, is related to the other institutions" (Hofstede, 1986, p. 303) and that children "grow into" their surrounding life (Panofsky, 2003), it is important to determine the implications and impact of cultural aspects on an individual's learning.

EDUCATION AND THE SELF

Within the United States, individuals are assessed as individuals, whereas in other cultures, students can be a part of a workgroup (Gelfand, Lim, & Raver, 2004). However, within that workgroup, the individual persists and continues to make meaning from experience and surroundings (Gelfand, Lim, & Raver, 2004). Schallert and Martin (2003) explained that within cultures are established "ways to learn" and that the views of learning are progressively influenced by the learner's context.

In addition to learning, culture can affect self-monitoring, self-regulation, and which emotions are externally shown (Snyder, 1975). Non-language behaviors are very important in communication. These behaviors include voice, body motion, and touch

(Snyder, 1975). Additionally, Snyder stated that an individual could voluntarily engage in these behaviors to express communication to other individuals. This functioning is argued to be necessary to function effectively socially (Snyder, 1975). Additionally, individuals can improve themselves to others through self-enhancement (Kitayama, Markus, Mastumoto & Norasakkunit, 1997). Kitamaya et al. argued that an individual is socialized to operate within a cultural context and without sensitive perceptions and understandings of that culture, an individual struggles to operate. In sum, they claimed that the external and internal, or social and psychological, are inseparable and interdependent.

If then, the self is the social and personal, the self's mental process is not autonomous but "exists and functions only in close interdependence and attunement with the collective surrounding" (Kitayama, Markus, Mastumoto & Norasakkunit, 1997, p. 1262). A social situation such as an education environment should affect personal mental processes, motivation, and self-monitoring within and for a specific culture.

Chapter 3:

Methods

The general purpose of the study was to determine if students' perceptions of their high school experience, and the social norms therein, were associated with their reported self-monitoring behaviors in 15 social environments and 14 particular social situations. The study replicated Gelfand et al.'s (2011) research on the tightness and looseness of 33 nations. As Gelfand et al. described, "nations that are 'tight' have strong norms and a low tolerance of deviant behavior and those that are 'loose' have weak norms and a high tolerance of deviant behavior" From (Gelfand et al., 2011, p. 1100). Reprinted with permission from AAAS. The research questions were whether Gelfand et al.'s (2011) tightness-looseness model can be replicated with Texas undergraduates' memory of high school rather than nations as used in the original research? If statistical significances are discovered in Texas undergraduates' memories, what might be the mechanism through which they occur? And do different populations differ in tightness-looseness, based on demographic data?

I. Design and Research Questions

The study replicated Gelfand et al.'s (2011) study on the tightness-looseness ratings of 33 nations. Because this study was a replication, the three measures used to measure tightness-looseness were also the same as in the original study with small modifications. However, instead of Gelfand's different nations, I limited the research to undergraduate students in a public university in the U.S. southwest who had attended public high schools in Texas. The three subscales were altered from social norms and self-monitoring within a culture to social norms and self-monitoring within a high school.

In particular, the first subscale, the tightness-looseness subscale (TL measure) had to first be modified to reflect my research questions. Before responding to the TL measure, the participants read an operationalizing definition of *social norms* in order to present a singular definition for the concept. It read, "Note that the statements sometimes refer to 'social norms,' which are standards for behavior that are generally unwritten."

Gelfand et al. (2011) converted their raw scores into a different scale to reflect the tightness and looseness of the 33 nations. The process by which the researchers converted the scores was unclear in the literature, and so in this design, I simply averaged the raw data into mean scores for each respondent for each of the three subscales, and finally for all of the subscales.

The demographic factors were clustered for the comparisons I made. For example, there were five groups for socio-economic status. I combined Upper and Upper Middle Class, Middle, and then Lower Middle and Lower Class into three groups. Then the demographic factors served as the independent variable for the first analysis and the TL measure was used as the dependent variable. I wanted to see if demographic factors significantly effected the tightness-looseness ratings of Texas public high school graduates.

During data analysis, the TL measure was found to be bimodal. On a scale from 1 to 6, one mode was at 4.0 and another was at 4.6. The average for the entire TL measure was 4.3. I decided to separate participants into two groups to reflect the bimodality of the TL means. Participants with an average of 4.30 or lower were assigned to the low group. Participants with an average at or higher than 4.31 were assigned to the high group.

Once the high and low groups had been established, I used them as the independent variable for the second analysis. Here, the dependent variables were the

Situation X Behavior (Behavior Measure) and Construct Validity (Environment Measure) subscales. This analysis was to determine whether or not TL was associated with behaviors.

II. PARTICIPANTS

This study sampled public university students registered in selected educational psychology (EDP) undergraduate courses. All students registered in undergraduate educational psychology courses were required to participate in four hours of research as a course requirement through which participants received course credit. Additionally, the participants voluntarily participated in the subject pool. There was an alternate option if involvement was not feasible or desired. Since the online surveys were self-paced and voluntary, there was very minimal risk with participation. The participants worked individually and there was no apparent competition between participants or as a part of the subscale measures. There were clear instructions and a consent page that participation was voluntary and they could resend or cancel their scores at any time.

The educational psychology department reported general subject pool demographics from Spring 2005. The subject pool had 1,297 registered participants. Of these participants, two-thirds were female and one-third was male. The majority of participants classified themselves as seniors and were between 18-21 years of age. Over half of the participants chose Caucasian as their ethnicity. Of the participants, 188 were enrolled in EDP 310 (Individual Learning Skills), 473 in EDP 363 (Human Sexuality), 101 in EDP 363M (Adolescent Development), and 282 in EDP 371 (Introduction to Statistics) ("Subject pool makeup," 2011).

This study had a target sample size of 100. After eliminating invalid responses, the study had a final number of 88 participants. Survey responses were omitted from final data analysis if the study participants did not self-identify as undergraduate students

or if the reported age was above 30 years old. Finally, if the surveys were not completely finished, the data were discarded.

The original sum of participants' reports from the three subscales reported online was 123. Out of the total 123, seven surveys were duplicates, meaning the same participant had begun and responded to the survey more than once. In these instances, the first fully complete survey was used for statistical analysis. Additionally, six surveys had not been fully completed, meaning there were many items on the measures that were left blank. Three participants did not provide their student identification number to receive study pool credit and verify nonduplicity. Six participants either did not provide their university year classification (Freshman, Sophomore, Junior, or Senior) or were graduate students. Two participants over the age of 30 were removed from the data set for not matching the study's specified age criteria. Participants over the age of 30 were eliminated from data analysis because of a larger temporal distance from their high school experience and memories. Finally, 12 participants originated outside of the state of Texas. The 12 non-Texan participants were removed because the states were too culturally varied, and there was not enough statistical power from the number of responses. The final data set includes 88 unique responses gathered from participants who met the study's specifications.

The participants for this study were demographically similar to the published subject pool data from 2005. The age ranged from 18 to 26 and averaged 20.77 years of age. There were 56 women and 32 men. The mean for year classification was Junior, 3.42, but the mode was Senior (Freshman: 3, Sophomore: 11, Junior: 20, Senior: 54). Most of the participants were enrolled in EDP courses as seniors. The race/ethnicity of the participants was predominately white/Caucasian (Asian: 19, Black/African American: 4, White/Caucasian: 48, Hispanic: 16, Multi-ethnic: 1), 50% of the

respondents reported being a part of the racial/ethnic majority in high school whereas 34% responded as a part of the racial/ethnic minority. Four respondents did not know if they were a part of the ethnic majority or minority during their high school experience.

The education of the participants' mothers had a mode of completing a four-year college degree. Most of the mothers had a high level of education, 29 having not finished college compared with 49 having completed a college or graduate degree. Similarly, the participants' fathers' education was high with a mode of completing a four-year college degree, and with 27 fathers who had some college but no degree and 51 who had completed a bachelor or graduate degree. The participants predominately reported that their parents had high levels of education and were themselves enrolled in a higher education institution. Finally, most of the participants' self-reported middle to upper class as their socio-economic status during high school. Most of the families had high levels of income and their children, the participants, were enrolled as undergraduates at a four-year university.

III. MEASURES

Three subscales were used to determine tightness-looseness scores. These scales were administered through the Qualtrics online survey research system. The first subscale, the "Tightness-Looseness Scale" determined to what extent the participant's perception of his or her high school experience was tight or loose. The measure came from Gelfand et al.'s 2011 survey of 33 nations. Wording was modified to reflect the application from national culture to school culture. Gelfand et al. reported the measure to be reliable and valid in the Supplemental Online Materials article. For this study, the participants responded to the six items based on a six-point Likert scale: 1=Strongly Disagree, 2=Moderately Disagree, 3= Slightly Disagree, 4=Slightly Agree,

5=Moderately Agree, 6=Strongly Agree. The higher numbers indicating higher levels of tightness.

Prior to the questions, the participants were shown clarifying information about which school the survey was referring to and the operationalization of *social norms*. The participants were not supposed to respond based on their college experience but were to respond reflecting back on their high school experience and culture. The instructions read, "The following statements refer to your secondary school (high school) experience. Think back to your personal experience at high school and respond to the questions below. If you attended more than one high school, please use the last school attended for the surveys. Please indicate whether you agree and disagree with the following statements using the following scale. Note that the statements sometimes refer to 'social norms,' which are standards for behavior that are generally unwritten."

Then the participants responded to six statements for the TL measure: 1. There were many social norms that people were supposed to abide by in my school, 2. In my school, there were very clear expectations for how people school act in most situations, 3. People agreed upon what behaviors were appropriate versus inappropriate in most situations in my school, 4. People in my school had a great deal of freedom in deciding how they wanted to behave in most situations (reverse coded), 5. In my school, if someone acted in an inappropriate way, others would strongly disapprove, and 6. People in my school almost always complied with social norms.

The second and third subscales measured behavior and self-monitoring across environments and were also a replication of Gelfand et al. (2011). The environments were very similar between the second and third subscales. The second scale surveyed 14 specific behaviors in 14 different situations, and the third subscale measured self-monitoring in 15 different environments.

The second subscale, Behavior X Situation Ratings (Behavior Measure), prompted the participants to respond how appropriate they saw 15 behaviors in their communities when they were in high school. The behaviors and situations were eating in an elevator, talking (and having a conversation) in the library, cursing/swearing (using foul language) at the workplace, laughing out loud in the classroom, flirting at a funeral ceremony, arguing in a job interview, listening to music on headphones in a restaurant, crying (shedding tears) at the doctor's office, reading newspaper in a public park, cursing/swearing (using foul language) in one's bedroom, singing on a city sidewalk, laughing out loud on a bus, kissing (on the mouth) in a restaurant, and bargaining (exchanging goods, services, or privileges) at the movies. The participants rated these statements on a 6-point Likert scale as well (1= Extremely inappropriate, 2= Very inappropriate, 3= Somewhat inappropriate, 4= Somewhat appropriate, 5= Very appropriate, 6= Extremely appropriate).

The third subscale (Environment Measure) assessed the construct validity of the environment items in the Behavior Measure by asking to what degree the participants had to self-monitor behaviors within 15 environments. This measure was replicated from Gelfand et al.'s (2011) Construct Validity measure. The participants responded on a five-point Likert scale (1= Not at all, 2= Blank, 3= Somewhat, 4=Blank, 5=Very much). Prior to responding, the participants were given a definition of self-monitoring to establish a common definition for responses. The operationalization of *self-monitoring* was "watch what they do" in an environment. The environments were bank, doctor's office, job interview, library, funeral, classroom, restaurant, public park, bus, own bedroom, city sidewalk, party, elevator, movies, and workplace.

IV. PROCEDURES

The sampled participants completed the survey online through Qualtrics. The survey's three measures (TL, Behavior Measure, and Environment Measure) were completed within the subject pool participation timeframe, October 4, 2013- November 15, 2013, a timeframe established by the department. Once the participants logged into the department's subject pool website, they were instructed to follow a link to the Qualtrics survey. The participants' first page was the consent to participate in research page. Next, the participants responded to basic demographic information questions (Appendix A). This information included age, gender, year classification, race/ethnicity, socioeconomic status, and political and religious beliefs.

After the demographic portion, the participants answered items in the three subscales. For the purposes of the study, the wording on the subscales was modified from *culture* and *country* to *school* (Appendix: B, C, and D) as needed. All surveys used Likert scaling and reverse coded when necessary.

The first subscale measured the participants' recollection of the tightness-looseness of their high school experience. The participants read a short instructional paragraph prompting them to reflect on their high school experience and respond based on that memory. This introduction also defined *social norm* to deter individual interpretation and increase the construct validity of the six items. The participants then checked off to what extent they agreed with the six statements based on a one-response only per item Likert scale.

The second subscale, the Behavior Measure, assessed behavioral actions across environments. Like the TL Measure, the participants were instructed to reflect on their high school experience and respond based on that memory rather than on their current

college experience. They then clicked on how appropriate specific behaviors were in specific environments on a 6-point Likert scale with only one response per item allowed.

Finally, the third subscale, the Environment Measure, evaluated 15 environments, some of which were used in the second subscale, and the degree to which the participants had to self-monitor within these environments. The participants were once again prompted to reflect on their high school experience and were given a definition of self-monitoring to promote the construct validity of the construct and provide a cohesive operationalization. Then, the participants responded on a 5-point Likert scale.

V. DATA ANALYSIS

The statistical procedure used was a one-way, between-subjects analysis of variance (ANOVA). All statistical tests used a 0.05 alpha level. For the first analysis, the independent variables were participants' reported demographic information and the dependent variable was the TL Measure score. For the second analysis, the TL Measure was used to construct the independent variable and the Environment and Behavior Measures were the dependent variables.

Prior to running the ANOVA, I assessed the study's general compliance with statistical assumptions. The independence assumption seemed reasonable because participants independently responded to the online subscales, and no collaboration occurred as far as I could determine. The normality assumption was not violated because the participants were randomly assigned to the study from the subject pool. To run the analyses, the scores for each participant were averaged for each of the measures. Every participant had three means (TL Measure, Behavior Measure, and Environment Measure).

Demographic variables were clustered to allow for more equal case sizes. All groupings were based on examining the number of responses for each category and determining cohesive and comparable group sizes. All participants identified as either male or female and these two groups were thusly left intact. Ethnicity was divided into Caucasian and non-Caucasian groups. Mother and Father Education were respectively grouped into no four-year degree and four-year degree or higher. Because most of the responses came from seniors, I created senior and non-senior groups. Likewise, I created a 2010 and earlier high school graduation year group and a 2011 and after high school graduation year group. SES was consolidated from six groups into three groups: Upper Class and Upper Middle Class, Middle Class, and Lower Middle Class and Lower Class. I clustered Political Affiliation into four groups: Very Conservative and Conservative, Moderate, Liberal and Very Liberal, and Other/None groups. Finally, Religious Affiliation was grouped into Christian and non-Christian groups.

Chapter 4

Results

In this chapter, I present details of the results of statistical analyses. I will only report if the homogeneity of variance assumption has been violated as most tests showed that the assumption had not been violated. I used SPSS to run the statistical analyses and a 0.05 alpha level. The TL measure resulted in an overall mean of 4.30 on a 1-6 scale and a standard deviation of 0.65. In Gelfand et al.'s study, they argued that the United States is near the middle in their comparison of 33 nations. The Behavior Measure resulted in a mean of 3.52 and a 0.58 standard deviation. This mean is lower than the TL measure. The Environment Measure produced a mean of 3.34 and standard deviation of 0.57. The Environment Measure showed the lowest of the three measures. Finally, the three surveys for all participants included in the final data analysis resulted in an overall mean of 3.58 and standard deviation of 0.30.

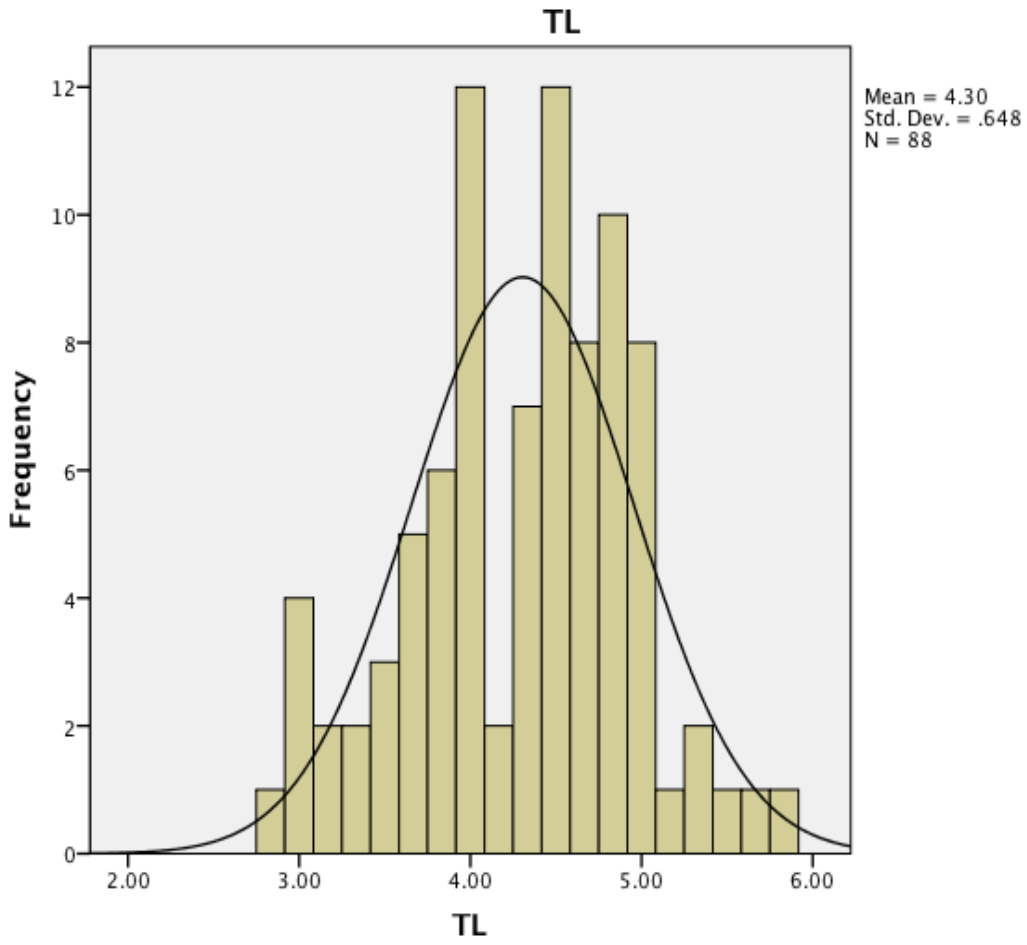

Figure 4.1: TL Measure Frequency Results

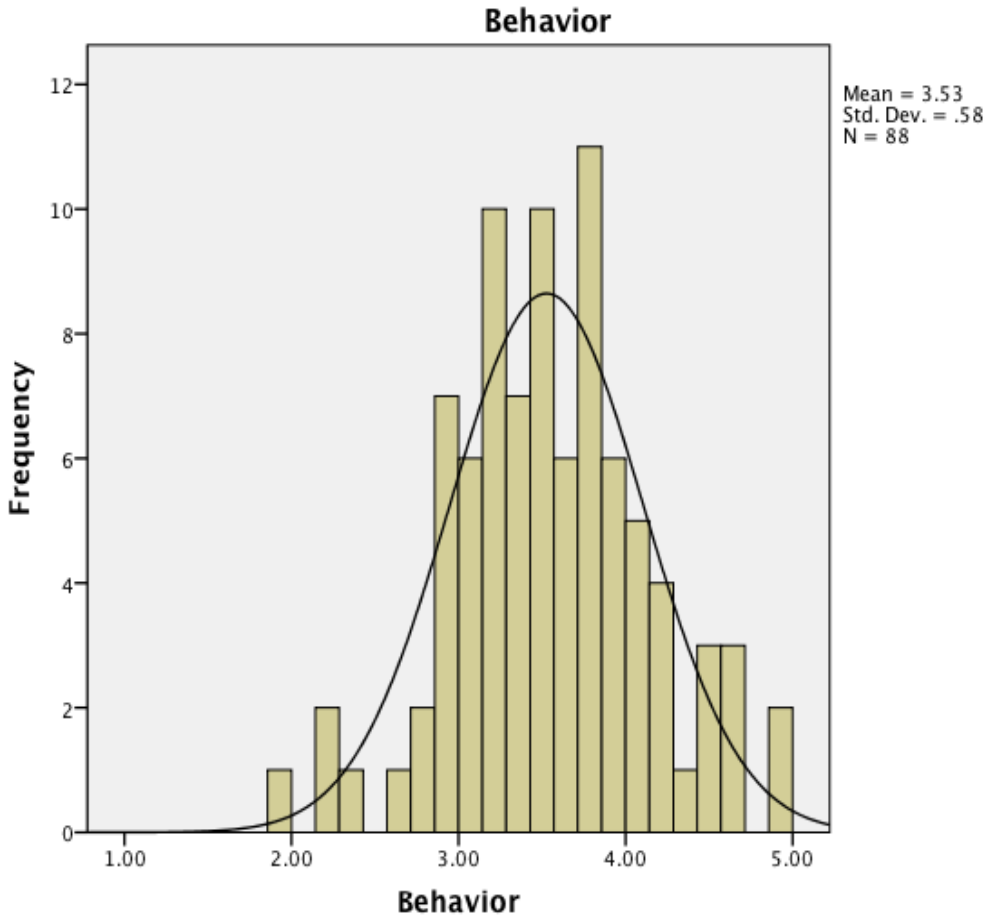

Figure 4.2: Behavior Measure Frequency Results

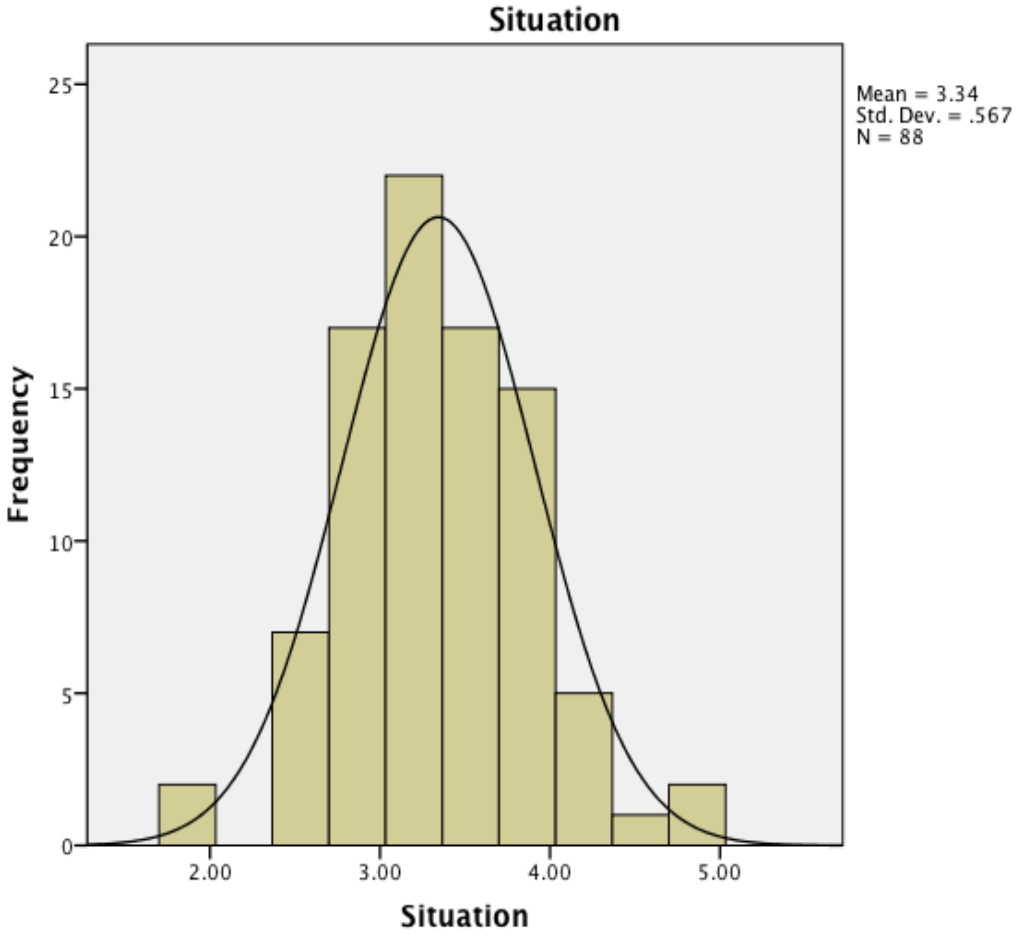

Figure 4.3: Situation Frequency Results

RELATIONSHIPS OF DEMOGRAPHIC VARIABLES AND THE TL MEASURE:

Gender:

As test of homogeneity of variances revealed the variance assumption was not violated, I proceed to a one-way, between-subjects ANOVA measuring the influence of gender on tightness-looseness score. Results revealed no significant effect, $F(4, 87) = 1.65$, $p = 0.36$.

Year Classification:

Seniors were clustered into one group (n = 54) and all other year classifications were clustered into a second group (n = 34). Freshmen through juniors were recoded as 1 and seniors were recoded as 2 in SPSS.

As the test of homogeneity of variances revealed a p value smaller than the .05 alpha level, $p = 0.02$ indicating that there was evidence that the variances were not homogenous, I used both the Welch and Brown-Forsythe robust tests of the equality of means, which indicated I could proceed. The one-way, between-subjects ANOVA did not reveal university year classification affected tightness-looseness scores, $F(3 , 84) = 1.36$, $p = 0.26$. Seniors averaged a tightness-looseness score of 4.27 and the other classifications averaged 4.35.

Race/ethnicity:

Race was reported as predominately white (n = 48). As such, the other reported races: American Indian/Alaskan, Black/African American, Asian, Hispanic, and Multi-ethnic (n = 40) were combined into a single non-white group. The average tightness-looseness score for Caucasian individuals was 4.42 and 4.16 for non-Caucasian individuals. Caucasian participants were reported slightly more tight high school culture

than non-Caucasian individuals. However, one-way ANOVA revealed no significant effect of race/ethnicity, $F(86, 1) = 3.47$, $p = 0.06$.

Majority/Minority:

The one-way, between-subjects ANOVA measuring the influence of being in the majority or minority ethnic group during high school on a participant's tightness-looseness score did not reveal a significant effect, $F(2, 85) = 0.24$, $p = 0.78$.

Mother's Education

Mothers of participants who had earned a 4 year degree or higher (n = 53) were recoded as group 2 and those who had less than a four-year college degree (n = 35) were recoded as group 1. This was in an attempt to make both groups as equivalent in number as possible. Once the two groups had been established, the one-way between subjects ANOVA did not reveal a significant effect of mother's education on the participants' tightness-looseness score $F(86, 1) = 0.38$, $p = 0.54$. Participants of mothers who did not have a four-year degree averaged 4.25 on the tightness-looseness scale, and participants of mothers who did averaged 4.33.

Father's Education

Fathers who had a four-year degree or above were recoded as group 2 (n = 57) and those with less than a four-year college degree (n = 31) were recoded as group 1. Once the different groups had been established, a between-subjects one-way ANOVA did not reveal a significant effect of father's education on participants tightness-looseness scores, $F(86, 1) = 0.09$, $p = 0.76$. Participants of fathers who did not have a four-year degree averaged a 4.33 tightness score, and participants of fathers who did have a four-year degree or higher averaged 4.28.

High School Socio-Economic Status

Those who responded as being a part of the Upper or Upper Middle class were combined (n = 35) and recoded as 1, those who checked being a part of the middle class were recoded as 2 (n = 33), and those in the Lower Middle class or Lower Class (n = 20) were recoded as 3. A between-subjects one-way ANOVA revealed no significant effects of socio-economic status on tightness-looseness scores, $F(85, 2) = 1.87$, $p = 0.16$. The Upper and Upper Middle classes averaged a score of 4.45, the Middle class averaged a score of 4.15, and the Lower Middle and Lower class averaged 4.30.

High School Graduation Year

Those who had graduated high school in 2010 or earlier were combined into a single group (n = 53) and recoded as 1, and those who had graduated high school in 2011 or later were combined into a group and relabeled as 2 (n = 35). A comparison of these two groups revealed no significant difference, $F(86, 1) = 0.05$, $p = 0.82$. Individuals who had graduated 2010 or earlier had an average tightness-looseness score of 4.31, and those who had graduated 2011 or later had an average tightness-looseness score of 4.28.

Political Affiliation

The one-way, between-subjects ANOVA did not reveal that the participants' political affiliation during high school significantly affected tightness-looseness scores, $F(5, 78) = 0.58$, $p = 0.58$. Those who had responded as Very Conservative or Conservative were regrouped into one group and recoded as 1 (n = 26), those who responded moderate were relabeled as 2 (n = 32), those who had responded as Liberal or Very Liberal (n = 23) were recoded as 3, and other (n = 3) were relabeled as 4. After clustering, Very conservative and Conservative responses had an average of 4.47. Moderate responses had an average score of 4.18. Liberal and Very Liberal response

averaged 4.24. Other was 4.33. However, there was not a significant effect of political affiliation on tightness-looseness $F(80, 3) = 0.97$, $p = 0.41$.

Religious Affiliation

The respondents were split into Christian and non-Christian groups. The Christian group was recoded as 1 (n = 57) and included Protestant, Catholic, and Evangelical Christians. The non-Christian group (n = 31) was recoded as 2 and included religions such as Judaism, Islam, Hinduism, Buddhism, Other, and None. After clustering, Christians averaged 4.29, and non-Christians averaged 4.32. A one-way ANOVA did not reveal significant effects of religious affiliation on the tightness-looseness scores $F(86, 1) = 0.35$, $p = 0.85$.

HIGH/LOW TL MEASURE:

The TL Measure was then used to categorize participants into a high and a low group based on their overall mean tightness-looseness scores. The TL mean was 4.30 on a scale of 1-6. Using 4.30 as the cut-off, I grouped the participants with a mean average of 4.30 or lower in the "low" group and participants with a mean of 4.31 or higher in the "high" group.

For the second analysis, these TL groups were used as the independent variable. Once the participants had been categorized into high or low groups, one-way between-subjects ANOVAS were run between each group with the Behavior and Environment measures as dependent variables.

TL MEASURE X BEHAVIOR MEASURE:

No significant differences were found between the High and Low Tightness-Looseness groups on the second subscale $F(86, 1) = 2.43$, $p = 0.12$.

TL Measure X Environment Measure:

A significant effect was found on the Environment Measure between the high and low TL groups, $F(81, 1) = 4.57$, $p < 0.05$, $p = 0.04$, with an effect size of 0.20. T-tests were used to evaluate each of the 15 environments comparing the responses of the high and low groups.

T-Tests

When comparing environments across tightness-looseness through multiple t-tests, I found that the only environments yielding significant differences were the public park and elevator environments, $p < 0.05$. The school environment was nearly significant with a p-value of 0.06. Additional studies with larger sample sizes might have more power to detect a significant effect of tightness-looseness in different environments.

Chapter 5:

Discussion

General Discussion

Reflecting on the research questions, I found Gelfand et al.'s (2011) tightness-looseness model could be replicated using data from 88 Texas undergraduates' memory of high school. Gelfand et al. (2011) revealed a score for the United States of 5.4, which was relatively in the middle of the 1 to 12 range they obtained of the 33 nations. My results show the tightness-looseness score for Texas undergraduates' memory of high school at a mean of 4.3 on a 1 to 6 scale. In my analyses, no significant statistical significances were discovered for the demographic, TL, Behavior, or Situation measures. Because no significant differences were found, if a mechanism exists that would connect perceptions of how much culture imposes constraints on its members' behavior to whether individuals self-monitor and self-regulate, it remains unclear. These findings are the result of limitations and underdeveloped constructs, as I will address below.

Limitations and Future Research

This research could be continued in future pursuits to measure educational outcomes based on different classifications on the tightness-looseness model. For instance, do students whose home culture is tight achieve higher academically when their culture is "matched" in an equivocally tight classroom? How does changing the tightness-looseness "match" impact educational achievement? Finally, there are education implications from this research in terms of self-regulation, Self-Determination Theory, self-monitoring, and motivation. Gelfand discusses levels of self-monitoring in tight versus loose cultures. Since participants and contexts within cultures can socialize

other participants' level of self-monitoring, the self-monitoring has the potential to transfer from personal environments to educational ones.

Despite not finding relevant significant effects of environment on the tightness-looseness scores, this topic merits continued research. A major limitation of this research is the number of participants. If this study had the number of participants that Gelfand et al. (2011) had in their study (n = 6,823) I believe a significant effect would have been discovered because the statistical analyses would have had greater power. Secondly, the participants were using memories of their high school experiences and not currently experiencing it, and thus, data were based on reflections rather than on current interpretations. Future research could take this into account when designing an experiment. Researchers could sample current high school students to determine a high school's tightness-looseness rating. This study used a college subject pool for convenience purposes. Additionally, the research was limited in that it surveyed from a single geographic area. There was not much variance in responses because the participants originated and were socialized within similar environments. If there were larger numbers of participants from other geographic or cultural regions, the between groups variances could potentially be higher, leading to more significant results.

The findings showed a significant effect of tightness-looseness on self-monitoring in public parks and elevators for the participants. The school environment, the environment of specific research interest for this study, did not yield any significant results. However, if in future studies more participants are included, I think the school context would show self-monitoring to occur differently depending on the tightness or looseness of the culture.

In conclusion, the importance of a culture's tightness or looseness on the educational environments is a topic worthy of future research. How cultures interact with

the development of its members' education through schooling institutions is paramount for understanding current school climates. More and more, effective methods by which education occurs is being researched due to standardized testing, and teachers across cultures need better pedagogies and curriculum. Self-monitoring, a culture's tightness and looseness, and the educational environment itself could serve as a base from which more information can be gathered to better the current educational climate for teachers and students.

Appendix

Appendix A

Demographics:

Please complete the following

Age:

2. Gender:

Male ( ) Female ( ) Other ( )

3. Please select:

Freshman ( ) Sophomore ( ) Junior ( ) Senior ( ) Don't know ( ) Graduate Student ( )

3. Race/ Ethnicity

American Indian or Alaska Native ( ) Asian ( ) Black/African American ( ) White/Caucasian ( ) Hispanic ( ) Multi-ethnic ( ) Other/Prefer not to say ( )

4. Majority/Minority

Please indicate if your racial identity was the majority or minority within your high school:

Majority ( ) Minority ( ) Don't know ( )

5. Education: (indicate your current enrollment or highest degree earned)

Elementary school only

Some high school, but did not finish

Completed high school

Some college, but did not finish

Two-year college degree / A.A / A.S.

Four-year college degree / B.A. / B.S.

Some graduate work

Completed Masters or professional degree

Advanced Graduate work or Ph.D.

Education of mother: (indicate level during your last year in high school)

Elementary school only ( ) Some high school, but did not finish ( ) Completed high school ( ) Some college, but did not finish ( ) Two-year college degree / A.A / A.S. ( ) Four-year college degree / B.A. / B.S. ( ) Some graduate work ( ) Completed Masters or professional degree ( ) Advanced Graduate work or Ph.D. ( )

Education of father: (indicate level during your last year in high school)

Elementary school only ( ) Some high school, but did not finish ( ) Completed high school ( ) Some college, but did not finish ( ) Two-year college degree / A.A / A.S. ( ) Four-year college degree / B.A. / B.S. ( ) Some graduate work ( ) Completed Masters or professional degree ( ) Advanced Graduate work or Ph.D. ( )

6. How would you rate your socio-economic status during your high school years? (optional)

Upper Class ( )Upper Middle Class ( ) Middle Class ( )Lower Middle Class ( ) Lower Class ( ) Other: Please Specify _____

7. High School attended: (if you attended more than one high school, please describe and refer to the last high school in which you attended before graduation)

Nation: _____ City: _____ Name: _____

8. What was your political affiliation (if any) during high school: (optional)

Very conservative ( ) Conservative ( ) Moderate ( ) Liberal ( ) Very liberal ( ) Other: _____

9. Were you religiously affiliated during high school: (optional)

Protestant Christian ( ) Roman Catholic ( ) Evangelical Christian ( ) Jewish ( ) Muslim ( ) Hindu ( ) Buddhist ( ) Other:_____ I was not religiously affiliated ( )

Appendix B

Survey 1: Tightness-Looseness Subscale (TL Measure)

The following statements refer to your secondary school (high school) experience. Think back to your personal experience at high school and respond to the questions below. If you attended more than one high school, please use the last school attended for the surveys.

Please indicate whether you agree or disagree with the following statements using the following scale.

Note that the statements sometimes refer to "social norms," which are standards for behavior that are generally unwritten.

1= Strongly Disagree

2= Moderately Disagree

3= Slightly Disagree

4= Slightly Agree

5= Moderately Agree

6= Strongly Agree

1. There were many social norms that people were supposed to abide by in my school.

2. In my school, there were very clear expectations for how people should act in most situations.

3. People agreed upon what behaviors were appropriate versus inappropriate in most situations in my school.

4. People in my school had a great deal of freedom in deciding how they wanted to behave in most situations (reverse coded),

5. In my school, if someone acted in an inappropriate way, others would strongly disapprove.

6. People in my school almost always complied with social norms.

Appendix C

Survey 2: Behavior x Situation Ratings (Behavior Measure)

How appropriate was this behavior in your community when you were in high school?

		See Below	See Below	See Below	See Below	See Below	See Below
1	Eat in an elevator	1	2	3	4	5	6
2	Talk (and have a conversation) in the library	1	2	3	4	5	6
3	Curse/swear (use foul language) at the workplace	1	2	3	4	5	6
4	Laugh out loud in the classroom	1	2	3	4	5	6
5	Flirt at a funeral ceremony	1	2	3	4	5	6
6	Argue in a job interview	1	2	3	4	5	6
7	Listen to music on headphones in a restaurant	1	2	3	4	5	6
8	Cry (shed tears) at the doctor's office	1	2	3	4	5	6
9	Read newspaper in a public park	1	2	3	4	5	6
10	Curse/swear (use foul language) in one's bedroom	1	2	3	4	5	6
11	Sing on a city sidewalk	1	2	3	4	5	6
12	Laugh out loud on a bus	1	2	3	4	5	6
13	Kiss (on the mouth) in a restaurant	1	2	3	4	5	6
14	Bargain (exchange goods, services, or privileges) at the movies	1	2	3	4	5	6

1= Extremely Inappropriate, 2= Very Inappropriate, 3= Somewhat Inappropriate, 4= Somewhat Appropriate, 5= Very Appropriate, 6= Extremely Inappropriate

Appendix D

Survey 3: Construct Validation Items (Environment Measure)

To what extent did these situations require that people monitor their own behavior or "watch what they do" in the community while you were in high school?

	Not at all		Somewhat		Very Much
1. Bank	1	2	3	4	5
2. Doctor's Office	1	2	3	4	5
3. Job Interview	1	2	3	4	5
4. Library	1	2	3	4	5
5. Funeral	1	2	3	4	5
6. Classroom	1	2	3	4	5
7. Restaurant	1	2	3	4	5
8. Public Park	1	2	3	4	5
9. Bus	1	2	3	4	5
10. Own Bedroom	1	2	3	4	5
11. City Sidewalk	1	2	3	4	5
12. Party	1	2	3	4	5
13. Elevator	1	2	3	4	5
14. Movies	1	2	3	4	5
15. Workplace	1	2	3	4	5

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