THE
McNAIR SCHOLARS JOURNAL

SACRAMENTO STATE

VOLUME 11
Foreword

The McNair Scholars Post-baccalaureate Achievement Program highlights the importance of academic achievement, scholarly inquiry, and mentorship. The outstanding students in this year’s cohort convened each week over the last year to present their knowledge, share their experiences, and take advantage of the unique opportunities that being a McNair Scholar offers.

These scholars, as representatives of their various disciplines, attended symposiums, conferences, workshops, and classes to present and share their scholarly research. These individuals included some of the most talented students at California State University, Sacramento. They joined the McNair Program with the hope of exploring, in depth, the path that could lead to earning doctorate degrees in their chosen fields of study. From the reading of this journal, you will find research on topics of great interest including:

- Governmental use of New Media
- Early childhood education and closing the achievement gap
- Comparing the activity and spatial requirements of captive and wild primates

In this current time of budgetary constraints and personal fiscal hardships, our scholars have embraced the desire to achieve and demonstrate the importance of the investment that is being made in each of them. These are individuals who seek to make a difference in the world and to explore topics to find new ideas and solutions for the problems that face our world today. From educating our children to managing the care of the elderly to discovering the fiscal and environmental balances we must achieve, the scholars have embraced the challenge to explore, research, and discover answers to some of the toughest problems our society faces today.

As institutions of higher education seek to address growing fiscal constraints, our scholars give rise to the future as they prepare to be leaders in higher education. Along with their faculty mentors, who have worked alongside these scholars, the McNair Scholars Program staff and I are proud of their accomplishments. I hope you will enjoy reading their work.

Chevelle Newsome, PhD
McNair Scholars Program Principal Investigator and Director
Fall 2010
Contents

The Effectiveness of Vocalized Hesitations When Discussing International Travel Experiences by James Cho ................................................................. 1

When Attractiveness Meets Stereotypes—Variables Influencing Perceptions of People’s Ethos and Credibility in the Workforce
by Nino Andre Conley .................................................................................. 19

 Appearing Extreme: Dampening Reflexivity, Postmodern Identity, and Electronic Colonialism in Action Sports Film by Jairet Crum ............. 34

The Social Life of Basket Caps: Repatriation Under the Native American Graves Protection and Repatriation Act, in Hopes of Cultural Revitalization by Vanessa Esquivido ................................................................. 51

Spanish-Speaking Patients and the Need for Professional Interpreters
by Yadira Ruby Guzman ................................................................................. 71

The Making of a Disney Princess by Kiara M. Hill ....................................... 83

The Effect of Stimulating and Soothing Smells on Heart Rate and Memory
by Rachanee N. Jackson ................................................................................ 97

Violent Video Games: The Effects of Gender Match on Levels of Aggression by Sunny Lee .................................................................................. 111

Hmong High School Students’ Perceptions and Motivations Toward Higher Education by Zoua Lor ................................................................. 124

The Influence of Internet Pornography on College Students: An Empirical Analysis of Attitudes, Affect and Sexual Behavior
by Megan Maas .............................................................................................. 137

African American Boys in Early Childhood Education (Elementary School) and Understanding the Achievement Gap through the Perceptions of Educators by Laureen Riddick ............................................................................. 151

The Government and New Media: The White House’s Use of Twitter
by Travis A. Sanchez .................................................................................... 171

Hmong Elders and Coping with Acculturation Stress by Lee Thao .......... 187

Activity Budgets of Two Captive White-Handed Gibbon (Hyllobates lar) Populations Housed in Different Types of Environments
by Sara Warren .............................................................................................. 201
The Effectiveness of Vocalized Hesitations When Discussing International Travel Experiences

by James Chow
Faculty Mentor: Dr. Xiaoying Xie

ABSTRACT

This study aims to determine the effectiveness of vocalized hesitations when attempting to persuade people to travel abroad by recounting personal international experiences. Using an experimental design, 171 undergraduate students at California State University, Sacramento were divided into two groups and shown a video of someone attempting to persuade them to travel abroad based on fictional international experiences with or without vocalized hesitations. Participants then completed questionnaires measuring their attitudes about the message. The results suggest that the effectiveness of vocalized hesitations is dependent on the message receiver, the travel experiences, and the type of persuasion.

According to the 2008 World Tourism Organization, international tourist arrivals (people traveling outside of their home country) reached 922 million people. Additionally, more people are visiting other countries for study abroad programs and for business purposes. As a consequence, people of varying cultures find themselves in situations where they will have to interact with different people, making intercultural communication effectiveness an increasingly valuable characteristic.

To effectively interact with culturally different people, a reduction of ethnocentrism is necessary. A recent study (DeNotaris et al. 2008) reported a strong negative correlation between frequency of travel and a person’s ethnocentric predisposition. This correlation suggests that individuals who travel more frequently and experience more cultures are less inclined to judge other cultures in reference to their own as the standard. Thus, traveling abroad contributes to intercultural communication effectiveness. In a qualitative study (Pennington and Wildermuth 2005), students made comments about their short-term travel/study experiences abroad that fit into a model of intercultural competency, suggesting that even short-term experiences in different cultures contribute to intercultural communication effectiveness.
While international travel is becoming more prevalent, it is still important to better understand how decisions are made to travel abroad. Traveling abroad presents the sojourner with the unique experience of interacting with people of differing cultures. Travelers will be faced with different beliefs, values, and norms, particularly in the behaviors of the people of the host culture. People making informed decisions about if and where to travel abroad, will get some of that information from other people vocally narrating their own experiences in other cultures. Thus, what other people say about their intercultural experiences could contribute the deciding factors of whether or not someone will travel abroad. While the content of what is being said about different cultures by the speaker is important, the nonverbal aspects of the message also contribute to the reception of the message. As Butler noted, “‘Arguments’ and ‘delivery’ are not separate, discreet units, but are instead interdependent components of the process of persuasion” (1984, 1). Thus, when people are potentially being persuaded by other people vocally narrating their own international travel experiences, the delivery of the message is an important factor. However, there seems to be a lack of research supporting the notion that nonverbal aspects specifically related to narratives of personal intercultural experiences influence the reception of the message by the listener.

This study aims to fill that void by investigating the relationship between listener reception of message content and message delivery quality when the message content consists of a personal narration of international experiences. By investigating this relationship, this study will contribute to our understanding of how people decide to travel abroad.

To investigate the relationship between listener reception of message content and message delivery quality, an experimental research strategy will be used. First, participants will be asked to watch a video of a student recounting fictional experiences of culturally different behaviors while traveling abroad, then participants will be asked to complete a survey measuring their attitude toward the behaviors described in the videos they watched.

LITERATURE REVIEW

The literature reveals conceptual understanding for social acceptability and for how to apply concepts for interest and curiosity towards differing cultures, as well as for how vocalized hesitations affect argument quality in the court room. The current study combines these concepts and investigates them in the context of discussing international travel experiences to persuade people to travel abroad.
Dependent Variables
To investigate how messages are received when international travel experiences are being verbally and vocally expressed to someone by describing culturally diverse behaviors, this study measures three aspects. One aspect is how the receiver categorizes the cultural behaviors as acceptable or unacceptable behaviors. The second aspect is how interested in observing or participating in the cultural behavior the receiver is. The third aspect is how curious the receiver is to learn more about the culture to which the behavior belongs.

Acceptability
“Acceptability” may be defined as how someone finds something as socially satisfactory by conforming to social standards. If something is socially acceptable, then it is something that is congruent with a group’s system of values, beliefs, and practices. Judging something as acceptable or not is similar to determining if something is good, bad, right, or wrong. These kinds of value judgments are a result of positive or negative reinforcements in the form of peer approval or disapproval (Skinner 1972). This view on how value judgments are made connects the concept of acceptability with culture, thus validating the legitimacy of researching the relationship between acceptability and differing cultural behaviors. Furthermore, Nishida and Nishida’s (1981) meta-analysis of values in an intercultural context shows that acceptability of social practices is culturally bound.

Previous research seems to be limited to measuring acceptability towards non-culturally specific behaviors. For example, scholars have examined attitudes towards deception by measuring whether certain forms of deception are deemed as acceptable (Seiter et al. 2002). Seiter et al. (2002) measured people’s acceptability based on the content and type of deception, rather than the delivery aspects of the message.

Lefebvre’s (1982) work on moral judgment involved questionnaires being given to Russian and US participants to measure their attitudes towards the same ethical situations to identify differences. Studying Russian citizens’ and United States citizens’ attitudes sheds light on what behaviors are acceptable to differing cultures, but not on how members of one culture judge culturally specific behaviors from other cultures.

Interest and Curiosity
According to Perry (1990, 354), “Favorable attitudes are likely to lead indirectly to enhanced learning about countries,” ultimately suggesting a self-perpetuating cycle where an increase in consumption of knowledge about foreign countries will cause an increase in a favorable attitude toward those
countries, thus causing an increase in desire to learn. Perry (1990) collected data to support a hypothesized model that illustrates this cycle.

The relationship between knowledge consumption, favorable attitude, and desire to learn is congruent with the theory of selective exposure. “Selective exposure” has been defined as “any systematic bias in audience composition” (Sears and Freedman 1967, 195). Thus, messages are more likely to reach an audience that shares the same attitude of the message. For example, stories about a certain country are more likely to be heard by people who share a favorable attitude towards that country. Theoretical research involving selective exposure has involved themes of foreign countries (Best et al. 2005; Perry 1990). However, empirical research about the delivery aspects of the message in relation to the concept of selective exposure to information about foreign countries is lacking.

**Independent Variable**

Vocalized (uttered with the voice) hesitations, both verbal (pertaining to words) or nonverbal (not pertaining to words), will be the independent variable. Verbal and nonverbal hesitations fall under the category of powerless speech. Bradac, Hemphill, and Tardy (1981) noted that nonverbal hesitation forms (uh, eh, and um), were used more frequently by people of lower power status. O’Barr (1982) later identified “you know” and “I mean” as verbal, rather than nonverbal, hesitations. Another discourse marker that sometimes fits into the category of verbal hesitations is the word “like.” Because “like” is often used to fill pauses, it also fits into the category of vocalized verbal hesitations (Levelt 1983). Bradac et al. were able to show that these forms of vocalized hesitations in speech “produced judgments of low power” (1981, 334), and lower power attributed low competence in the speaker. In other words, people who are perceived as being of lower power status are also perceived as being less competent.

Powerless speech has been shown to serve mostly as a negative distraction for the receiver of the messages (Areni and Sparks 2005). Areni and Sparks also said of powerless speech that its “influence in guiding attention means that it renders otherwise persuasive elements impotent,” suggesting that the content becomes less relevant to the decision-making process when powerless speech is present (2005, 523).

**Rationale for Research**

Previous studies mostly focus on how cultural differences affect intercultural interaction. In these studies, predispositions are measured and compared to draw implications. For example, Hornikx and Hoeken (2007) conducted research to determine differences in attitudes towards evidence used in arguments between French and Dutch participants. In another study (Viswat
and Kobayashi 2008), the researchers investigated how United States citizens and Japanese citizens approached conversation participation, and discovered differences in frequency of joining conversations and differences in motivation to join conversations. While these types of studies provide valuable information for better understanding how different cultures might interact with each other, they do not point out how cultural differences influence an individual's attitudes towards other cultures. More specifically, research on how cultural differences are presented to listeners and how that presentation might influence an individual’s attitudes towards other cultures is absent.

Another key factor in the predominant research involving cultural differences is the nature of the cultural differences. As previously stated, predispositions (such as an individual’s tendency to use statistical evidence when arguing) are the common themes of research. The present study offers a different perspective by defining the “cultural differences” as actual cultural practices or events that are not direct factors in human interaction.

By exploring the relationship between how these cultural differences (cultural practices and events) are perceived and how those cultural differences are presented to an audience, this study aims to identify ways to increase people's desire to gain international experience when listening to other people discuss their experiences abroad by determining if it is appropriate to use vocalized hesitations. Experience traveling abroad has been shown to increase global attitude, which, in turn, increases motivation to travel abroad (Arasaratnam 2006).

HYPOTHESES

This study tests five hypotheses (H) based on Arasaratnam’s (2006) model involving experience abroad, global attitude, and motivation to travel abroad; on Perry’s (1990) model involving consumption of information about foreign countries; and on the effects of verbal and nonverbal hesitations on persuasive messages.

**H1:** Participants who receive a message without vocalized hesitations will report higher acceptability towards the cultural behaviors being described in the message than participants who receive a message with vocalized hesitations.

**H2:** Participants who receive a message without vocalized hesitations will report higher interest towards participating in or personally observing the cultural behaviors being described in the message than participants who receive a message with vocalized hesitations.

**H3:** Participants who receive a message without vocalized hesitations will report higher curiosity towards learning more about the culture from which
the behaviors being described in the message originate than participants who receive a message with vocalized hesitations.

**H4:** Participants who receive a message without vocalized hesitations will report higher competency of the speaker than participants who receive a message with vocalized hesitations.

**H5:** Participants who receive a message without vocalized hesitations will report higher trustworthiness towards the speaker than participants who receive a message with vocalized hesitations.

**METHODOLOGY**

Using a quantitative approach, the researcher collected data to discover relationships between the variables. Statistical Package for the Social Sciences (SPSS) was used to analyze the data.

**Participants**

The study participants were 171 undergraduate students at California State University, Sacramento. Of these, 91 were male (53.2%), 76 were female (44.4%), and 4 participants who did not report their gender (2.3%). The mean age of participants was 24 (SD = 5.87). There were two sophomores (1.2%), 112 juniors (65.5%), and 52 seniors (30.4%), and 5 additional participants who did not disclose their year in school (2.9%). Regarding ethnic background, 46.8% of the participants reported being Caucasian, 20.5% reported being Asian American, 9.9% reported being Latin American, 5.8% reported being Pacific Islander, 4.7% reported being African American, 1.2% reported being Middle Eastern, and 11.1% claimed Other or Unlisted for ethnicity.

**Research Strategy**

The researcher used an experimental design for the current study. To achieve an experimental design, the researcher created different levels of the quality of speaking between subject groups. One group received one level of inducement, while the other group received a different level of inducement. After receiving their assigned experimental condition (independent variable), each group completed a questionnaire (see Appendix) to measure various continuous variables (dependent variables) as their reaction to the experimental condition.

**Independent Variable**

Speaking quality while delivering a fictional account of various world travel experiences is the independent variable for the current study. Speaking quality was determined by the presence or absence of verbal and nonverbal
hesitations (um, uh, and like). The different levels of the independent variable included one video of the speaker recounting fictional world travel experiences with verbal and nonverbal hesitations, and another video of the speaker without verbal and nonverbal hesitations. The manipulation check for the two levels of the independent variable included asking the participants to indicate the degree to which they found the speaker’s speech to contain verbal and nonverbal hesitations, and to indicate the degree to which they found the speaker’s speech to be fluent or flowing.

The content of the videos consisted of a student describing some recent international travel experiences. The speaker in the video described four specific countries, each with its own cultural practice or behavior. The speaker described people driving on the left side of the road in London, people blowing their nose into their hands and into the street in India, people bathing in the nude in community bathhouses in Japan, and the availability of horse meat for human consumption in Argentina. The videos were produced in the same setting. Each video used or featured of the same speaker sitting in the same room against the same wall during the same time of the day.

The presence of the verbal and nonverbal hesitations is the only difference between the two videos.

**Dependent Variables**

To account for the listeners' reception of the message, the researcher took three measurements for each cultural behavior or practice. Testing was conducted using each individual cultural behavior for each independent variable, and using the overall scores of all four of the cultural behaviors for each independent variable. First, the participant’s acceptability towards each cultural behavior was measured by asking her/him to indicate the degree to which she/he found the behavior acceptable on a 7-point Likert-type scale (Cronbach’s α for all cultural behaviors = .77). Then, level of interest in participating or personally observing was measured for each cultural behavior on a 7-point Likert-type scale (Cronbach’s α for all cultural behaviors = .70). Finally, the participant’s level of curiosity was measured by asking her/him to indicate to which degree she/he was curious to learn more about the specified culture for each cultural behavior (Cronbach’s α for all cultural behaviors = .75). These three measurements are important to observe because they are abstract ideas that together give an indication as to what extent the participants may or may not be considering traveling abroad.

Additionally, a 15-point semantic differential scale was used to measure participants’ attitudes towards the speaker in the video. The scale used for the present study is based on a multidimensional measurement first developed by McCroskey (1966). The scale measures two categories of attitude towards the
speaker: competence (Cronbach’s α = .79) and trustworthiness (Cronbach’s α = .79). Participants chose a value on a 7-point scale between dichotomies related to what was being measured.

**Procedure**

Data collection took place on April 30, 2010 and May 11, 2010. One class for each experimental condition was selected, totaling two classes. The classes consisted of undergraduate courses from the Communication Studies department. Participants in each class received written instructions, were asked to sign an informed consent form, received a four-page questionnaire, and were then asked to watch a 60- to 90-second video prior to filling out their questionnaire. The videos were displayed on the in-class projector connected to a laptop. The classrooms also contained wall-mounted speakers powerful enough to ensure that all participants were able to hear under normal circumstances.

**RESULTS**

Each hypothesis was tested individually by looking at the relationship between the specific variables. Along with testing each hypothesis, the measurements for the manipulation check were tested.

**Manipulation Check**

First, the researcher conducted an independent-sample *t* test to determine if the manipulation of the independent variable was successful. Because one level of inducement of the independent variable was a message with vocalized hesitations, and the other level was without vocalized hesitations, the participants were asked to indicate to what level they noticed the speaker’s speech contained vocalized hesitations, and to what level they thought the speaker was speaking fluently. Both manipulation checks were rated on a 7-point Likert-type scale. The results showed that the level to which the participants noticed the speaker’s speech contained vocalized hesitations was greater in the group exposed to the “with vocalized hesitations” condition \((M = 5.56; SD = .17)\) than in the group exposed to the “without vocalized hesitations” condition \((M = 2.89; SD = .15; t(169) = 11.73, p < 0.05)\).

The results also showed that the level to which the participants rated the speaker as fluent was greater in the group exposed to the “without vocalized hesitations” condition \((M = 4.91; SD = .15)\) than in the group exposed to the “with vocalized hesitations” condition \((M = 3.23; SD = .18; t(169) = 6.72, p < 0.05)\). These two relationships indicate that the manipulation was successfully induced between the two participant groups.
Hypotheses Testing
The researcher also used an independent-sample $t$ test to test each hypothesis (H). First tested was hypothesis H1. The researcher conducted an independent-sample $t$ test between the overall scores for acceptability for each sample group. The results showed that the group exposed to the condition without verbal hesitations scored greater on the acceptability scale ($M = 4.46; SD = .16$) than the group exposed to the condition with verbal hesitations ($M = 4.20; SD = .16; t(174) = 1.23, p > .05$). The results indicate that the difference is not significant. However, the data revealed significant results while testing the differences between the levels of acceptability towards each individual cultural behavior of the two groups. The results showed that level of acceptability towards driving on the left side of the road in London is greater in the group exposed to the condition with vocalized hesitations ($M = 5.48; SD = 1.92$) than in the group exposed to the condition without vocalized hesitations ($M = 6.08; SD = 1.56; t(174) = 2.29, p < .05$). This relationship is significant. The differences between the two groups regarding their acceptability towards someone blowing their nose into the street or their hand in India, communal bathing in Japan, and human consumption of horse meat in Argentina were insignificant ($p > .05$). Thus, the hypothesis is only partially supported.

Next, H2 was tested. The researcher conducted an independent-sample $t$ test between the overall scores for interest in participating in or personally observing the cultural behaviors being described for each sample group. The results showed that the group exposed to the condition without vocalized hesitations scored greater on the interest scale ($M = 3.36; SD = 1.35$) than the group exposed to the condition with vocalized hesitations ($M = 3.24; SD = 1.44; t(174) = .54, p > .05$). The relationship is not significant. However, significant results were found again when looking at the difference of each individual cultural behavior between the two sample groups. The results showed that the level of interest in participating in or personally observing driving on the left side of the road in London was greater in the group exposed to the condition without vocalized hesitations ($M = 5.24; SD = 1.83$) than in the group exposed to the condition with vocalized hesitations ($M = 4.33; SD = 2.16; t(174) = 3.01, p < .05$). The results also showed that the level of interest in participating in or personally observing communal bathing in Japan was greater in the group exposed to the condition with vocalized hesitations ($M = 3.30; SD = 2.01$) than in the group exposed to the condition without vocalized hesitations ($M = 2.70; SD = 1.81; t(174) = 2.09, p < .05$). These two relationships are significant. The differences between the two groups regarding their interest in participating in or observing someone blowing her/his nose into the street or their hand in India, and human
consumption of horse meat in Argentina were insignificant \((p > .05)\). Thus, the hypothesis is not supported.

The third hypothesis (H3) was tested next. The researcher conducted an independent-sample \(t\) test between the overall scores for curiosity to learn more about the cultures for each sample group. The results showed that the level of curiosity to learn more about cultures was greater in the group exposed to the condition with vocalized hesitations \((M = 3.63; SD = 1.64)\) than in the group exposed to the condition without vocalized hesitations \((M = 3.59; SD = 1.58; t(174) = .20, p > .05)\). The relationship is not significant. Again, the researcher found significant results by looking at the differences of each individual cultural behavior between the two groups. The results showed that the level of curiosity to learn more about London’s culture was greater in the group exposed to the condition without vocalized hesitations \((M = 4.16; SD = 2.13)\) than in the group exposed to the condition with vocalized hesitations \((M = 3.92; SD = 2.10; t(174) = .75, p < .05)\). The results also showed that the level of curiosity to learn more about Japan was greater in the group exposed to the condition with vocalized hesitations \((M = 3.89; SD = 2.21)\) than in the group exposed to the condition without vocalized hesitations \((M = 3.42; SD = 2.10; t(174) = 1.44, p < .05)\). These two relationships are significant. The differences between the two groups regarding their curiosity to learn more about India and Argentina were insignificant \((p > .05)\). Thus, the hypothesis is only supported for learning more about London.

The researcher then tested the fourth hypothesis (H4) by conducting an independent-sample \(t\) test to test the relationship between vocalized hesitations and perceived speaker competency. The results showed that the speaker’s level of competency was rated higher by the group exposed to the condition without vocalized hesitations \((M = 4.16; SD = .97)\) than by the group exposed to the condition with vocalized hesitations \((M = 3.41; SD = 1.07; t(171) = 4.80, p < .05)\). This relationship is significant. Thus, the hypothesis is supported.

Finally, the researcher tested the fifth hypothesis (H5) by conducting an independent-sample \(t\) test to test the relationship between vocalized hesitations and perceived speaker trustworthiness. The results showed that the speaker’s level of trustworthiness was rated higher by the group exposed to the condition without vocalized hesitations \((M = 4.60; SD = .95)\) than by the group exposed to the condition with vocalized hesitations \((M = 4.52; SD = 1.07; t(172) = .53, p > .05)\). The relationship is not significant, thus, the hypothesis is not supported.
DISCUSSION

Some of the tests discussed in the previous section resulted in significant findings, while some showed no relationships. The mixed results supported some of the hypotheses of this study, showed no relationship for others, and uncovered unexpected relationships for some.

The group exposed to the condition with vocalized hesitations reported higher levels of acceptability towards driving on the left side of the road in London than the group exposed to the condition without vocalized hesitations. This finding indicates that Hypothesis 1 (H1) is supported for that cultural behavior. The relationships between the other cultural behaviors and the manipulation of the independent variable are not significant and, as a result, do not support the hypothesis or provide additional findings.

Similarly, Hypothesis 2 (H2), related to vocalized hesitations and interest in participating in or personally observing cultural behaviors, is only supported for driving on the left side of the road in London. The finding of Hypothesis 3 (H3), related to vocalized hesitations and curiosity about the culture being described, is only supported for driving on the left side of the road in London. Hypothesis 4 (H4), related to vocalized hesitations and perceived competency, is not supported due to an insignificant difference in the results. Hypothesis 5 (H5), related to vocalized hesitation and perceived speaker trustworthiness, is not supported due to insignificant differences in the results.

The data also revealed additional findings. Because the group exposed to the condition with vocalized hesitations reported higher interest in participating in or personally observing communal bathing in Japan than did the group exposed to the condition without vocalized hesitations, the results suggest that, in this case, participants who received the message with vocalized hesitations reported higher interest than participants who received the message without vocalized hesitations. Regarding participants’ curiosity to learn more about the culture, the same difference was found. Thus, participants who received a message with vocalized hesitations reported higher levels of curiosity to learn more about the culture being described in the message than participants who received a message without vocalized hesitations.

An explanation for the additional findings can be provided by the identification theory of persuasion (Burke 1969). According to Burke, “you persuade a man only insofar as you can talk his language by speech, gesture, tonality, order, image, attitude, idea, identifying your ways with his” (55). This idea explains why, in the present study, the speech containing vocalized hesitations was more successful at producing higher levels of curiosity to learn more about the culture and an interest in participating in or personally
observing communal bathing in Japan if the participants themselves regularly use vocalized hesitations in their everyday speech.

LIMITATIONS
The limitations of the study can be seen in the measurement and the sample. For the measurement, a simple single-question design was used, so only one question was asked (e.g., To what level do they find the cultural behavior being described as acceptable?). If more time were allowed, a more thorough measurement involving multiple questions could have been designed and proven reliable by pretesting. While the sample size was adequate, only one class (out of convenience) was selected for each experimental condition. Using only one class per condition makes the differences in time and day that the measurements were taken more distinct. Additionally, minor computer effects resulted in slightly lower quality of video playback for one of the groups than for the other. However, both groups were tested in the same room using the same equipment.

FUTURE RESEARCH
This study suggests the direction for future research should be looking at different contexts for persuading people to travel abroad. For example, a study could use a salesperson for a travel company who is trying to persuade the participants to purchase travel services, instead of a peer student merely suggesting that the participants should travel internationally. Another direction for future research should be looking at the types of cultural behaviors being described by making a clearer distinction between emotionally evoking cultural behaviors and neutral behaviors to produce stronger findings for practical use.

CONCLUSION
The mixed results found in this study suggest that, in some cases, it is more effective to use vocalized hesitations to persuade someone to travel abroad based on your personal experiences, and, in other cases, it is more effective not to use vocalized hesitations. Based on the type of cultural behaviors described, it may be that using vocalized hesitations is more effective when describing cultural behaviors that have a higher chance of producing an emotional response, such as communal bathing, than when describing cultural behaviors that have less of a chance of producing an emotional response, such as driving on the left side of the road in London. Whether you are trying to convince a friend to travel abroad or representing a company that wants to convince potential customers to subscribe to your
travel services, it is important to recognize how you are speaking, who you are speaking to, and what you are speaking about, because your use of vocalized hesitations will make a difference.
APPENDIX

Below are items that relate to the behaviors being described by the speaker in the video. Record your first reaction to each item as you remember them being described in the video. There are no right or wrong answers.

I. Please indicate the degree to which you find the behaviors being described by the speaker in the video as acceptable or unacceptable using the following seven-point scale:

Completely Unacceptable = 1; Very Unacceptable = 2; Somewhat Unacceptable = 3; Neutral = 4; Somewhat Acceptable = 5; Very Acceptable = 6; Completely Acceptable = 7

1. When the speaker in the video describes driving in London:
   Acceptability: 1 2 3 4 5 6 7

2. When the speaker in the video describes someone in India blowing their nose in public:
   Acceptability: 1 2 3 4 5 6 7

3. When the speaker in the video describes communal bathing in Japan:
   Acceptability: 1 2 3 4 5 6 7

4. When the speaker describes eating horse in Argentina:
   Acceptability: 1 2 3 4 5 6 7

II. Please indicate the degree to which you find the behaviors as something you would be interested in traveling to the specific country to observe:

Very Strongly Uninterested = 1; Strongly Uninterested = 2; Somewhat Uninterested = 3; Undecided = 4; Somewhat Interested = 5; Strongly Interested = 6; Very Strongly Interested = 7

1. When the speaker in the video describes driving in London:
   Interesting: 1 2 3 4 5 6 7

2. When the speaker in the video describes someone blowing their nose in public:
   Interesting: 1 2 3 4 5 6 7

3. When the speaker in the video describes communal bathing in Japan:
   Interesting: 1 2 3 4 5 6 7

4. When the speaker describes eating horse in Argentina:
   Interesting: 1 2 3 4 5 6 7
III. Please indicate the degree to which the description of the cultural behavior in the video makes you curious to learn more about the culture:

Very Strongly Not Curious = 1; Strongly Not Curious = 2; Somewhat Not Curious = 3; Undecided = 4; Somewhat Curious = 5; Strongly Curious = 6; Very Strongly Curious = 7

1. When the speaker in the video describes driving in London:
Curious: 1 2 3 4 5 6 7

2. When the speaker in the video describes someone blowing their nose in public:
Curious: 1 2 3 4 5 6 7

3. When the speaker in the video describes communal bathing in Japan:
Curious: 1 2 3 4 5 6 7

4. When the speaker describes eating horse in Argentina:
Curious: 1 2 3 4 5 6 7

IV. Instructions: On the scales below, indicate your feelings about the speaker in the video. Numbers 1 and 7 indicate a very strong feeling. Numbers 2 and 6 indicate a strong feeling. Numbers 3 and 5 indicate a fairly weak feeling. Number 4 indicates you are undecided.

1) Intelligent 1 2 3 4 5 6 7 Unintelligent
2) Untrained 1 2 3 4 5 6 7 Trained
3) Honest 1 2 3 4 5 6 7 Dishonest
4) Untrustworthy 1 2 3 4 5 6 7 Trustworthy
5) Inexpert 1 2 3 4 5 6 7 Expert
6) Self-centered 1 2 3 4 5 6 7 Not self-centered
7) Honorable 1 2 3 4 5 6 7 Dishonorable
8) Informed 1 2 3 4 5 6 7 Uninformed
9) Moral 1 2 3 4 5 6 7 Immoral
10) Incompetent 1 2 3 4 5 6 7 Competent
11) Unethical 1 2 3 4 5 6 7 Ethical
12) Insensitive 1 2 3 4 5 6 7 Sensitive
13) Bright 1 2 3 4 5 6 7 Stupid
14) Phony 1 2 3 4 5 6 7 Genuine
15) Not understanding 1 2 3 4 5 6 7 Understanding

V. Please indicate the degree to which you find the speaker's speech in the video to contain verbal and nonverbal hesitations (um, uh, er, like):

Very many = 1; Many = 2; Somewhat many = 3; Don’t remember = 4; A few = 5; Very little = 6 None = 7

1 2 3 4 5 6 7

Please indicate the degree to which you find the speaker’s speech to be fluent (capable of flowing):

Not fluent at all = 1; Not very fluent = 2; Barely fluent = 3; Don’t remember = 4; Somewhat fluent = 5; Very fluent = 6; Perfectly fluent = 7

1 2 3 4 5 6 7

Please indicate whether or not you consider the speaker to be a professional or a peer student:

Professional = 1; Don’t Remember = 2; Peer Student = 3

1 2 3

Please indicate whether or not you consider the speaker to be an authority on the subject or not an authority:

Very much an authority = 1; An authority = 2; Somewhat an authority = 3; Don’t remember = 4; Somewhat not an authority = 5; Not an authority = 6; Very much not an authority = 7

1 2 3 4 5 6 7

1. My age is ___________ years.
2. I am MALE FEMALE
3. Please indicate your ethnicity (please circle 1 or 2):
   CAUCASIAN AFRICAN AMERICAN LATIN AMERICAN
   NATIVE AMERICAN PACIFIC ISLANDER ASIAN
   MIDDLE EASTERN OTHER____________________________
4. Please indicate what year you are in college:
   FRESHMAN SOPHOMORE JUNIOR SENIOR
   GRAD STUDENT OTHER_________________________
REFERENCES


When Attractiveness Meets Stereotypes—
Variables Influencing Perceptions of
People’s Ethos and Credibility in the
Workforce

by Nino Andre Conley
Faculty Mentor: Dr. Kimo Ah Yun

ABSTRACT
The study predicted that perceived physical appearance (high or low attractiveness) and job stereotyping (matched or not matched) would interact to affect perceived credibility, such that attractiveness and matched job stereotyped individuals would be perceived as credible, whereas unattractive and unmatched job stereotyped individuals would not be perceived as credible.

A total of 118 participants were exposed to one of four photographs of the same woman in which her attractiveness and appearance to match a job stereotype were manipulated. Participants then completed a series of items to measure perceived credibility (competence, goodwill, and trustworthiness). Results did not support the predicted hypothesis. However, results found a main effect for attractiveness and job stereotyping on perceived competence.

Physical appearance plays an important role in society. For example, people’s perception of others’ competence, ethos (McCroskey and Young 1981), and goodwill (McCroskey and Teven 1999) is influenced by the attractiveness of others. The phenomenon of using attractiveness as an estimate of another’s abilities is especially true in the workforce, where it has been found to be an important predictor of perceived professionalism and the ability to complete work-related tasks (Dion, Berscheid, and Walster 1972).

Scholars and researchers, predominantly in the field of social psychology, have explored how physical appearance affects the perception and perhaps even the decision-making process of managers, supervisors, and subordinates in employment settings (Goodwin, Gubin, Fiske, and Yzerbyt 2000). Two of the most important factors influencing people’s perception of the capability of others in the workforce are individuals’ physical attractiveness and the extent to which they appear to belong to a group associated with stereotypes of professions in question.
LITERATURE REVIEW

Research suggests that physical attractiveness is not a subjective perception, but that it adheres to measurable attributes and characteristics such as facial symmetry and proportions, as well as the development and expression of facial traits regarding size and shape (Jefferson 2004; Grammer and Thornhill 1994; Cunningham 1986; Cunningham, Barbee and Pike 1990). This research maintains that an objective description of perceived physical attractiveness becomes significant when placed in context with various attributes associated with beauty. If physical attractiveness is inherently associated with favorable skills, attributes and characteristics, a permanent, yet unreasonable advantage is given to a person with the attractive features.

The findings of Dion, Berscheid and Walster (1972), suggest that physically attractive people are perceived to have more favorable traits. This study became the basis of a body of work to which many scholars have contributed. The vast majority of research around the effects of physical appearance resulted in support of the idea of the “beauty-is-good” stereotype. Some exceptions and mediating variables have been discovered by other researchers during the discourse of applying Dion, Berscheid and Walster’s famous theory (Ashmore, Eagly, Longo and Makhijani 1991; Dipoye, Arvey and Terpstra 1977; Beehr and Gilmore 1982), however, there is a tendency to associate attractive individuals with positive attributes and below average individuals with unfavorable attributes (Griffin and Langlois 2006; Downs and Harrison 1985). Generally speaking, the previously referenced literature supports the notion that beauty is associated with positive traits, the lack of beauty with negative traits.

Placed in the context of the workforce, research has shown that the attractiveness of an employee (or potential employee in the form of a job candidate) has a significant impact on the perceptions of (hiring) managers and coworkers (Tews, Stafford and Zhu 2009; Desrumaux, DeBosscher and Leoni 2009). The literature reveals that a large body of research has been dedicated to explaining under which circumstances attractiveness factors into the perception of job-related skills and competence. Even though there are mixed results amongst some research findings and there is a need for additional exploration, it can be concluded that there is a consensus amongst scholars that physical attractiveness influences the perception of individuals in the workforce.

Biases Based on Stereotypes in the Workforce

When examining the research on stereotypes in the workforce, it is important to clarify how preconceived notions about a group of people factor contextually into the hiring process and general assessment of professional
performance and competence. Where attractiveness is directly related to perceived positive attributes, stereotypes are dependent on the field of profession with which they are associated. Therefore, a stereotype cannot be determined as hindering or helpful without being placed in context with a particular profession. Where it may be possible to argue that high levels of physical attractiveness likely result in specific advantages, researchers cannot predict if belonging to a certain stereotyped group is beneficial without knowing if the stereotypical characteristics of a person are positive, in relation to the job. A woman, for instance, may benefit from being (sex) stereotyped when seeking employment for a position that is predominantly held by female employees, but may have to face discrimination when attempting to gain access into a male-dominated field, and may even accept notions of sex segregation of jobs and associated stereotypes (Miller and Rowena 2006).

The research also suggests that even adolescents and people who are just about to enter the workforce have manifested certain stereotypical notions intrinsically. Many studies have uncovered clear biases, motivated by stereotypes, especially those that are held by hiring managers (Guinote and Philips 2010; Goodwin, Gubin, Fiske and Yzerbyt 2000).

The literature suggests that individuals in the workforce stereotype particular groups to assess competence based on physical appearance (assigning the individual to a group with favorable or unfavorable traits) when evaluating or judging skills, performance or qualifications. Adding to the literature examining the relationship of mobility, discrimination, exclusion and expulsion in the workforce, Garcia and Bobbitt-Zeher (2007) used a qualitative analysis as a complementary study to the more common use of a cause-and-effect model to gain insights into this topic. They explored the factors of race and sex by analyzing discrimination cases filed in Ohio between 1988 and 2003. Similarly, Marlowe, Schneider and Nelson (1996) examined the variables of sex and attractiveness in order to determine their effect on suitability for hiring and probable organizational progression. The findings revealed a bias towards favoring the more attractive candidates as well as preferring male candidates to female candidates. The findings also indicated that even though these differences may have been more subtle, being good looking and male gave competitors having one or both of these traits (such as perceived credibility) an edge over other candidates with equal qualifications.

An oft-used foundation of research on credibility uses McCroskey and Teven’s definition and measurement scale of ethos and credibility to assess participants’ perception regarding the professional qualities, capabilities
and general job performance skills. McCroskey and Young (1981) reviewed research that has been conducted over the course of 30 years that examined the definition and measurement of ethos and credibility. In 2000, Teven and McCroskey released a study justifying the use of the dimension of goodwill as part of the measurement for ethos and credibility after some controversy was claimed that goodwill as a dimension is too elusive and cannot be used as a tool due to difficulties operationalizing its definition. Teven and McCroskey (2000) concluded in their study that the previously conducted analysis of the factor analytic research (conducted by McCroskey and Young in 1981) was correct and that the two dimensions of competence and trustworthiness were successfully developed as reliable instruments for measuring credibility in addition to the dimension of goodwill, which is concerned with characteristics of the individual. Since Teven and McCroskey convincingly argue that ethos and credibility are a multidimensional construct, and that the scales produced reliable results, the measurements were used for this study (Teven and McCroskey 1996).

This scientific credibility instrument consists of three dimensions with six items each. The first dimension of the Teven and McCroskey scale is “competence,” with six semantic differential type items, including intelligent/unintelligent, trained/untrained, expert/inexpert, informed/uninformed, competent/incompetent, and bright/stupid.

The second dimension focuses on what Teven and McCroskey (1996) defined as “goodwill,” which focuses on the general, perceived ethos of the subject in the picture. The six semantic differential items that measure goodwill include: has my interest at heart/does not have my interest at heart; cares about me/does not care about me; self-centered/non self-centered; concerned with me/unconcerned with me; sensitive/insensitive; and understanding/not understanding.

The third dimension is defined as “trustworthiness,” featuring the six items of honest/dishonest; trustworthy/untrustworthy; honorable/dishonorable; moral/immoral; ethical/unethical; and genuine/phony.

HYPOTHESIS

The literature on physical attractiveness and stereotyping clearly shows a pattern of scholarly interest in investigating the effects that these forces have on the perception of people active in the workforce. While uncovering the circumstances under which the prevalence of attractiveness or stereotypes are reliable indicators for favorable perception, scholars have yet to determine whether there is an advantage when an individual is both attractive and positively stereotyped for a specific job position. The purpose
of the present study was to investigate if the variables of attractiveness and matching the stereotype combined enhance people’s positive perception of an individual’s competence, as well as to examine if stereotypes or physical attractiveness differentially impact the perceptions of others. Consequently, the following hypothesis is proposed: Physical attractiveness (high and low) and stereotyping of a job (matched or unmatched) interact to impact perceived credibility (competence, goodwill, and trustworthiness). Specifically, individuals who are physically attractive and positively job stereotyped will be perceived as most credible, whereas physically unattractive and negatively job stereotyped individuals will be perceived as least credible.

METHODOLOGY

The experiment followed a 2 x 2 design with physical appearance (high and low attractiveness) and matching the stereotype of a profession (matching and not matching) as the independent variables. The dependent variable was the perception of competence in accordance with the definition of Teven and McCroskey’s measure of credibility. The study was conducted in two stages. First, the researcher performed a manipulation check to examine the ability of the experimental stimuli to induce the intended effects. Upon successfully creating stimuli that induced perceptions of physical attractiveness and perceived job stereotyping, the main experiment was conducted to ascertain the effect of these variables on perceived credibility.

Manipulation Check

The manipulation check included 60 participants not used in the experiment. The sample consisted of students between the age of 18 and 61, with a mean of 26.5 (SD = 6.80), who attended a public West Coast university. This group consisted of 28 males (46.7%) and 32 females (53.3%), of which 24 (40%) identified themselves as Caucasian; 5 (8.3%) as African American; 17 (28.3%) as Asian; 8 (13.3%) as Hispanic; none (0%) as Native American; and 6 (10%) as black (non-Hispanic), multiracial or other.

Procedure

Participants were exposed to one of four photographs of a woman in which the variables of attractiveness (high and low) and matching the stereotype (match or do not match) were manipulated. After viewing the picture, participants rated their perception of the individual’s appearance such that the higher the score the more attractive the person appeared to the participant and the more the photograph matched the expected job stereotype. The five items used to measure perceived physical attractiveness included: The woman in the photograph is good looking, attractive, beautiful, pretty and visually appealing. The five items used to measure whether the
person’s appearance was consistent with the stereotype for that job included: The woman in the photograph looks like a secretary/administrative assistant, matches the stereotype of a secretary/administrative assistant, resembles the typical photograph of a secretary/administrative assistant, has the appearance of a secretary/administrative assistant, and features the look of a secretary/administrative assistant.

Data Analysis
A reliability analysis of both the perceived physical attractiveness and job stereotyping items was conducted. Both the attractiveness (α = .72) and the job stereotyping (α = .81) items were sufficient. As such, these items were summed to form a composite measure.

As predicted, the participants exposed to the images in which the subject’s appearance was manipulated to appear highly attractive (M = 5.94, SD = .69) perceived the woman in the photograph as more attractive than in the images in which her appearance was manipulated to have low attractiveness (M = 3.60, SD = .99). Furthermore, these differences were significant, t(58) = 10.6, p < .001, r = .81).

Additionally, participants exposed to the images in which the subject’s appearance was manipulated to match the job stereotype of an administrative assistant/secretary (M = 5.34, SD = 1.01) perceived the woman to resemble the typical photograph of the profession to a greater extent compared to the images in which she did not match the job stereotype (M = 2.85, SD = 1.38). Furthermore, these differences were significant, t(58) = 7.99, p < .001, r = .72.

MAIN EXPERIMENT
After the manipulation check successfully confirmed the correct manipulation of the two variables, 118 participants received the main survey. The age of participants ranged from 19 to 63 years of age with a mean of 24.5 (SD = 6.80). This sample consisted of students enrolled in a western state university, as well as two western community colleges. This group consisted of 75 males (63.6%) and 39 females (33.1%). Sixty-Three (53.4%) participants reported themselves to be Caucasian, 18 (15.3%) African American, 6 (5.1%) Asian, 13 (11%) Hispanic, 1 (8%) Native American, and 14 (11.9%) as black (non Hispanic), multiracial or other.

Procedure
Upper and lower division classes of a western state university, as well as two classes at western community colleges were solicited to participate. Before completing the study, participants were informed that participation was voluntary, and their identity would remain anonymous. Participants were also
instructed not to write their name or any other personal information on the survey. Participants were only asked to provide information regarding their gender, sex and race in order to provide demographic information about the sample for this experiment. The researcher offered no incentives or inducements for participation.

Participants were exposed to one of the four differing images (four combinations of matching the stereotype and attractiveness) of a woman, and asked to rate their impressions regarding her competence as an administrative assistant on a 7-point Likert-type scale, in accordance with Teven and McCroskey’s (1996) measure of ethos and credibility. Testing the three dimension of Teven and McCroskey’s scale of measuring ethos and credibility for reliability produced the following Chronbach’s alpha reliability values: Goodwill, $\alpha = .76$; Trustworthiness, $\alpha = .76$; and Competence $\alpha = .67$. Since the Competence measure was a bit low, one item was deleted. The final reliability estimate after deleting this item was $\alpha = .74$. Given the sufficient reliability of each of the scales, the individual items were summed to form three composite measures.

RESULTS

Hypothesis 1 predicted that physical attractiveness (high and low) and perceived job stereotyping (match or unmatched) would interact to impact perceived credibility such that it would be highest for individuals who are physically attractive and high in job stereotyping and lowest for individuals who are physically unattractive and low in job stereotyping. Because credibility is a multidimensional construct and includes the dimensions of competence, goodwill, and trustworthiness, each of these three dimensions are analyzed as independent outcomes.

With respect to perceived competence, a two-way analysis of variance was performed. For these data sets, no interaction effect was found, $F(1, 115) = 1.69, p = .20$. However, a main effect for physical attractiveness, $F(1, 115) = 18.27, p < .001$ and perceived job stereotyping, $F(1, 115) = 9.23, p = .003$ was found (see Table 1 for descriptive statistics). Results showed greater perceived competence for the images with high attractiveness over the images with low attractiveness and for the images matching the job stereotype over the ones not matching the job stereotype image.
With respect to perceived goodwill, a two-way analysis of variance was performed. For these data sets, no interaction effect was found, $F(1, 115) = 2.17, p = .14$. No main effect was found for physical attractiveness, $F(1, 115) = .13, p = .72$ and perceived job stereotyping, $F(1, 115) = 1.53, p = .22$ (see Table 2 for descriptive statistics). Results showed no greater perceived goodwill for the images with high attractiveness over the images with low attractiveness or for the images matching the job stereotype over the ones not matching the job stereotyped image.

With respect to perceived trustworthiness, a two-way analysis of variance was performed. For these data sets, no interaction effect was found, $F(1, 115) = 1.29, p = .26$. No main effect was found for physical attractiveness, $F(1, 115) = .31, p = .58$ and perceived job stereotyping, $F(1, 115) = 3.39, p = .07$ (see Table 3 for descriptive statistics). Results showed no greater perceived trustworthiness for the images with high attractiveness over the images with low attractiveness or for the images matching the job stereotype over the ones not matching the job stereotyped image.

<table>
<thead>
<tr>
<th>Stereotype</th>
<th>High Attractiveness</th>
<th>Low Attractiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matching Job</td>
<td>$\mu = 5.47$</td>
<td>$\mu = 4.60$</td>
</tr>
<tr>
<td>Stereotype</td>
<td>$[P(5.16 \leq \mu \leq 5.79) = .95]$</td>
<td>$[P(4.29 \leq \mu \leq 4.91) = .95]$</td>
</tr>
<tr>
<td>Not Matching Job</td>
<td>$\mu = 4.79$</td>
<td>$\mu = 4.33$</td>
</tr>
<tr>
<td>Stereotype</td>
<td>$[P(4.49 \leq \mu \leq 5.01) = .95]$</td>
<td>$[P(4.02 \leq \mu \leq 4.64) = .95]$</td>
</tr>
</tbody>
</table>

Table 1. Competence means and confidence intervals

<table>
<thead>
<tr>
<th>Stereotype</th>
<th>High Attractiveness</th>
<th>Low Attractiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matching Job</td>
<td>$\mu = 4.74$</td>
<td>$\mu = 4.44$</td>
</tr>
<tr>
<td>Stereotype</td>
<td>$[P(4.41 \leq \mu \leq 5.08) = .95]$</td>
<td>$[P(4.11 \leq \mu \leq 4.77) = .95]$</td>
</tr>
<tr>
<td>Not Matching Job</td>
<td>$\mu = 4.29$</td>
<td>$\mu = 4.48$</td>
</tr>
<tr>
<td>Stereotype</td>
<td>$[P(3.96 \leq \mu \leq 4.61) = .95]$</td>
<td>$[P(4.14 \leq \mu \leq 4.81) = .95]$</td>
</tr>
</tbody>
</table>

Table 2. Goodwill means and confidence intervals

<table>
<thead>
<tr>
<th>Stereotype</th>
<th>High Attractiveness</th>
<th>Low Attractiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matching Job</td>
<td>$\mu = 5.11$</td>
<td>$\mu = 4.83$</td>
</tr>
<tr>
<td>Stereotype</td>
<td>$[P(4.77 \leq \mu \leq 5.45) = .95]$</td>
<td>$[P(4.5 \leq \mu \leq 5.16) = .95]$</td>
</tr>
<tr>
<td>Not Matching Job</td>
<td>$\mu = 4.61$</td>
<td>$\mu = 4.71$</td>
</tr>
<tr>
<td>Stereotype</td>
<td>$[P(4.28 \leq \mu \leq 4.94) = .95]$</td>
<td>$[P(4.37 \leq \mu \leq 5.05) = .95]$</td>
</tr>
</tbody>
</table>

Table 3. Trustworthiness means and confidence intervals

**Competence**

The descriptive statistics for the dimension of competence turned out as follows: for the photograph of the woman manipulated to appear
unattractive and not matching the stereotype, $M = 4.33 \ (SD = 1.0)$; for the photograph in which she appears unattractive and matching the stereotype, $M = 4.6 \ (SD = .80)$; in the photograph in which she appears attractive and not matching the stereotype, $M = 4.79 \ (SD = .75)$; and in the photograph in which she looks attractive and matches the stereotype, $M = 5.47 \ (SD = .78)$. The difference between not matching the stereotype, $M = 4.57 \ (SD = .91)$ and matching the stereotype, $M = 5.03 \ (SD = .90)$, is statistically significant. Thus, matching the stereotype provides an advantage over people not matching a stereotype regarding the perceptions of competence.

**Goodwill**

The descriptive statistics for the dimension of goodwill turned out as follows: for the photograph of the woman manipulated to appear unattractive and not matching the stereotype, $M = 4.48 \ (SD = 1.01)$; in the photograph in which she appears unattractive and matching the stereotype, $M = 4.44 \ (SD = .68)$; in the photograph in which she appears attractive and not matching the stereotype, $M = 4.29 \ (SD = 1.0)$; and in the photograph in which she looks attractive and matches the stereotype $M = 4.59 \ (SD = .79)$. The difference between not matching the stereotype, $M = 4.38 \ (SD = 1.0)$, and matching the stereotype, $M = 4.56 \ (SD = .79)$, is not statistically significant. It can be concluded that matching the stereotype provides no advantage over not matching a stereotype regarding perceptions of goodwill.

**Trustworthiness**

The descriptive statistics for the dimension of trustworthiness turned out as follows: for the photograph of the woman manipulated to appear unattractive and not matching the stereotype, $M = 4.71 \ (SD = .90)$; for the photograph in which she appears unattractive and matching the stereotype, $M = 4.83 \ (SD = .79)$; in the photograph in which she appears attractive and not matching the stereotype, $M = 4.61 \ (SD = .95)$; and in the photograph in which she looks attractive and matches the stereotype, $M = 4.97 \ (SD = .88)$. The difference between not matching the stereotype, $M = 4.66 \ (SD = .92)$ and matching the stereotype, $M = 4.97 \ (SD = .88)$, is not statistically significant. It can be concluded that matching the stereotype provides no advantage over not matching a stereotype regarding perceptions of trustworthiness.

**DISCUSSION**

The results show that there are some statistically significant differences between the images of the woman featuring both desirable variables (high attractiveness and matching the positive job stereotype) and the photograph showing a version of the subject featuring neither desirable variables, (low
attractiveness and not matching the positive job stereotype). No significant difference was found between any other combinations of images.

From the gathered information between low attractiveness and high attractiveness, and matching or not matching the job stereotype, the conclusion can be drawn that attractiveness and stereotypes are strong variables that influence perceptions of competence. By manipulating the two variables, the same person was perceived as more competent and, therefore, perhaps more suitable for the profession of an administrative assistant. Nevertheless, H1 has been rejected because the two variables combined did not appear to have an enhanced effect on people’s perceptions of competence, goodwill or trustworthiness as predicted.

The difference amongst the means of the two images with only one desirable variable (high attractiveness or matching the job stereotype) did not show any significant statistical difference between the photograph with neither one of the desirable variables (low attractiveness and not matching the job stereotype) nor the photograph with both (high attractiveness and matching the job stereotype). In other words, the version of the photograph featuring the woman whose appearance was manipulated to have low attractiveness but fulfilled the job stereotype (featuring only one of two desirable variables) was, on average, not perceived as more competent than the woman in the photograph who appeared to feature low attractiveness and did not match the job stereotype. The numbers support the same result between the photographs featuring only one desirable variable (high attractiveness and not matching the job stereotype) and the photograph featuring both (high attractiveness and matching the job stereotype). Thus, an attractive person who matches the stereotype is only perceived as more competent in comparison with a person who lacks attractiveness and does not match the stereotype. As soon as one of the two variables is present, no difference in the perception of good or bad was found.

Finally, there was no statistical difference found amongst the four photographs regarding the dimensions of trustworthiness and goodwill. Only the dimension of competence was attributed favorably to the photographs featuring attractiveness or matching the stereotype. This result means that the desirable variables (attractiveness and matching the stereotype) only enhanced the positive perception of the dimension of competence, but had no effect on depicting the person’s trustworthiness or goodwill as all four versions of the woman in the photographs were seen as equally trustworthy and caring. This finding is not surprising because the same person is shown in all four photographs and the characteristics of goodwill and trustworthiness may be
more descriptive of a person’s inherent, essential personality traits rather than factors taken into account in context with a profession.

LIMITATIONS

It is important to emphasize that the research findings are closely tied to the designated profession of and stereotypes about an administrative assistant/secretary. The perception of a subject depends heavily on the stereotypical parameters society has set for a particular profession. For instance, if the designated job in the present research had not been an administrative assistant, but instead an occupation with a strong gender bias in favor of males (such as finance or engineering), the subject in the photographs may had been perceived as highly incompetent, simply because of her gender. In contrast, if the job had been designated as a stereotypically traditional one predominantly associated with the female gender (such as a nanny or housekeeper), the subject may have been perceived as highly competent. Therefore, the findings cannot be applied to the workforce in general, but only to the specific profession of administrative assistants/secretaries, since biases vary in accordance to the occupation.

Another important factor limiting the study’s findings is the fact that, for the sake of controlling for variables, the same subject was used to depict four different individuals. It is not surprising that the manipulated variables can only alter overall appearance to a certain extent. Even though the manipulation check confirmed that participants perceived the subject in accordance to the manipulated variables and a statistically significant difference was present, the difference was not tremendous.

Participants perceived the attractive versions of the subject as more attractive than the unattractive ones, but it could not be inferred that the attractive version was perceived as exceptionally beautiful and the version featuring low attractiveness as extraordinarily ugly. The present study used the same individual with the same face, so to speak, which makes less of a difference than comparing an objectively super-attractive individual who is matched up against another, completely different, below-average-looking person. Under such circumstances, a completely different result may be produced.

Make-up and hairstyles can only enhance, disguise or pronounce certain features, but cannot alter the symmetry and proportions of a person’s face. It is also important that many, perhaps even most, stereotypes are tied to unchangeable factors such as race, sex or age, which were not regarded in this research. To make the subject appear more like a secretary, the researcher only altered apparel, accessories and hairstyle, producing a noticeable, yet slight difference. A young, African American administrative assistant who
is male would probably be perceived tremendously different than an elderly female of Asian descent in the same profession.

It is also crucial to mention that Teven and McCroskey’s (1996) measure of ethos and credibility dedicates two of the three dimensions to goodwill and trustworthiness. Participants may have detached these dimensions from the designated profession and based their assessment more on basic character traits than on requirements for outstanding professional performance. For instance, the unattractive subject who did not match the stereotype may have appeared to be incompetent in her profession, but she nevertheless could still be perceived as an honest, trustworthy person with goodwill, who would conduct herself ethically in any given circumstance.

A profession more reliant on these character traits such as a kindergarten teacher, caretaker, housemaid, therapist or accountant may have led to a different result in overall perception of job performance, since these attributes would be assigned greater significance when practicing a profession where a person’s character and ethos are important requisites. Perhaps the work of an administrative assistant is perceived as a duty where trustworthiness and goodwill are relatively unimportant characteristics and not necessarily indicative of good performance in the job.

FUTURE RESEARCH

Even though there was no statistically significant difference found between the two photographs depicting only one desirable variable and the other two photographs featuring both or no desirable variables, there may still be interesting information to derive from the results. The finding regarding the photographs with both variables and the one with none may be of interest for future research since the present study confirmed that stereotypes and attractiveness guide people, and that they alter perception even when the appearance of the same individual is altered.

The same person was rated as significantly less competent when she appeared unattractive and did not match the stereotype in a photograph, as opposed to being attractive and fitting into the stereotypical group of an administrative assistant. This suggests that there might be a significant difference when two distinct people are evaluated. If the study focused on two different individuals with distinctive facial features; strongly varying degrees of physical attractiveness; and different races, genders and ages, then the results may have shown astounding differences in perception. Future research in this area could be tied to the larger body of research dedicated to identifying biases based on the perception of race and sex in the workforce.
CONCLUSION

The findings of this research project are consistent with the literature. Attractiveness and stereotypes are strong variables that determine a person’s perception of professionalism and competence when evaluating others. Even though the two variables of attractiveness and matching the stereotype each are important for assessing perceived job performance, the findings still do not provide any indication that the two variables combined created a tremendously positive, most desired impression that significantly triumphed over the other photographs, as it was hypothesized.

In addition, attractiveness and matching the stereotype seemed to be equally significant variables in this experiment. The means of perceived competence for the photographs featuring only one variable were almost identical. This result may indicate that people are equally influenced by stereotypes and the tendency to attribute positive features to beauty as originally suggested by Dion, Berscheid and Walster (1972).

Once people become aware that they may be influenced by certain irrelevant variables such as attractiveness and stereotypes, they may instead be able to produce evaluations, judgments and assessments more objectively—based on relevant parameters such as education, skills, abilities, knowledge, qualifications and experiences. Further research could be used as a foundation for another step forward in the attempt to minimize stereotyping, prejudice and unjustified judgments in the workforce caused by the unreasonable practice of letting perception influence judgment.

This experiment exemplified the findings of previous research showing that the impressions and perceptions of other people’s competence can be influenced by mere appearance and the context in which they are placed (such as the specific profession). This finding, in context with other research conducted in the field, may be able to explain unjust, discriminatory and biased practices in the workforce. It may also help to create awareness of the unreasonable behavior of associating physical traits with skills and knowledge.
REFERENCES


 Appearing Extreme: Dampening Reflexivity, Postmodern Identity, and Electronic Colonialism in Action Sports Film

by Jairet Crum
Faculty Mentor: Dr. David Zuckerman

ABSTRACT

Snowboarding, which originated in the United States, has grown to be the largest international action sport. The research uses a communication perspective to examine the presentation of identity in a snowboard film. Black Winter (2009) is deconstructed in this study because the film is a presentation of symbols and signs that reinforce an identity depicted as the real snowboarder identity. Four scenes from the artifact are deconstructed to expose a commodified postmodern identity that, when consumed, dampens the consumer’s reflexive process. The relationship between snowboarding film, commodified postmodern identity, and McPhail’s (2007) electronic colonialism theory are discussed.

With an enormous commodification of action sports occurring within the last 15 years, consumption of this industry’s products is becoming increasingly ubiquitous. As marketers and advertisers produce more material blending action sports such as surfing, skateboarding, snowboarding, and a list of others, scholars turn to examining the effects of such material. The present research investigates how a snowboard film can project a stable identity to its audience, and whether or not the identity that is presented to the audience is a counterculture-based identity. The film’s representations, in turn, create a reality that the individual may exist within, or provide an example for how to perform on a daily basis, what Goffman (1959) referred to as being “on stage.” The characteristics of these mass mediated action sports personalities are deconstructed by the researcher and presented as forging an identity for a proletariat-type athlete who can reach the bourgeois class by circumventing the traditional route while maintaining a counterculture-based social identity.

The independent nature of participation in what has become known as “action sports,” “extreme sports,” or, in some cases, “high risk/risky behavior” creates the opportunity for a capitalist economy to produce new goods and services for recreation that identify with a given psychology.
This psychological identification connects with previous work by Midol and Broyer (1995), and Bale (1994), who assert that the American desire for risky behavior is connected to the cultural value of rugged individualism. Further, the independent nature of participation introduces a type of sporting that is postmodern, as are the characteristics of the lifestyle depicted by the individual athlete. The “postmodern society” is understood by Kellner (2002, 52) as one that functions through images, simulation, and signs, and in which “identities are constructed by the appropriation of images, and codes and models determine how individuals perceive themselves and relate to other people.”

The desirability of this alternative form of sporting provides an opportunity for consumer culture to increase the activity’s popularity through consumption, based on identification and participation. As the popularity of this genre spreads and percolates into the mainstream, society must remain critical of when and where the potentially dangerous commodified image is presented. Because many of the action sports were conceived in the counterculture backlash to traditional sporting and a search for new modes of recreation in the late 1970s and 1980s (Midol and Broyer 1995; Potter and Heath 2004), commodification of such lifestyles continues to be laden with the projection of counterculture values to represent the participants. As postmodernity has blurred the area between celebrity and the everyday person, more people create their sense of identity through the consumption of some type of mediated identity (Slater 2007).

The potential for influencing other nations and cultures that do not carry the same values as the United States becomes a large concern as action sports athletes have reached the world stage, with their events being added to the Olympics and reaching national network television broadcast through competitions with large purse (sum of money) winnings. The greatest influence is from the United States, where culture is responsible for the development of this genre of sport (Howe 1998), because the depiction of counterculture value lifestyles on a world stage assists in making the depicted lifestyles/values desirable to an increasingly broader range of consumers. These depictions delude the initial ideology as the consumer base grows, and each new participant in consumption causes a decrease in awareness of the original values of counterculture ideology through which the activity was developed. Further still, the athletes make substantial endorsement salaries (Badenhausen 2009) and, as good marketing will have it, must attend to many contractual obligations for promotional purposes, which increases their connection and exposure to mainstream popular culture. Howe’s (1998) socio-historical context for the inception of snowboarding is acknowledged here to provide a context for the counterculture values of sporting pioneers,
thus producing an understanding of the detriment that counterculture depictions present once incorporated into the mainstream.

PROBLEM STATEMENT

In the social identity, presentation of self, consumption and consumer culture, leisure studies, and postmodern literature, no research exists about the action sports video medium and the effect of the respective lifestyle commodification on cultures consuming the media abroad. This research seeks to clarify nuances that exist within the presence of action sports in the mainstream, while critiquing the continuing depiction of action sports professionals as nonconformist counterculture icons within popular culture. The study aims to connect a commodified counterculture lifestyle with the effects produced from depictions of that lifestyle being disseminated on the world stage. The effect of these images as mass-consumed depictions, their influence on the values of receiving cultures, and their influence on the psychology of viewers are discussed.

RESEARCH QUESTION

This research aims to build understanding about the development of self through the consumption of video content and the creation of a postmodern identity that presents its audience with the notion that each is participating in a subculture in an individual, different, and somewhat subversive way—the presentation of a nonconformist identity that is consumable through the commodified action sports industry that is thriving and clearly permeating global popular culture (Rinehart and Sydnor 200). What has not been discussed is how people create a stable identity through the consumption of goods and services that reinforce their identity without the individual thinking about why she/he places importance on the consumed goods and services that she/he identify with. This study reviews film of a specific action sport (snowboarding, in this case) to express how postmodern characteristics exist in the identity depicted, presenting the audience with a new type of sport. This research seeks to examine how the commodified identity and lifestyle of professional action sports athletes influence consumers’ minds when consumed outside of the culture in which the material is produced. With this in mind, the researcher asked: How do snowboard films present their audience with a stable and consumable identity that, once consumed, reinforces the audience’s sense of participation and authenticity?
Due to the interdisciplinary lens that was used to focus on this topic, it was necessary to review a healthy variety of literature. The preliminary literature offers the foundation for this discourse, while the central literature provides those concepts and theories that are most vital to the assertions of this study.

**Commodification**

According to Marxist political theory, “capitalism” is the economic system that allows for a commodification, or what Marx refers to as “alienation,” of just about everything (Gilbert 2008). Recognizing a commodity as anything that has been deemed a useful product, “commodification” is understood to be the process by which something is recognized as a product and subsequently produced for public consumption.

In *Against the Commodification of Everything*, Gilbert (2008) asserted that if a pursuit of neo-liberal ideology were able to commodify everything, as it serves to, innumerable options would exist. The major pitfall of commodification, as Schwartz’s (2005) research expresses, is that having an excess of options can be a degenerating characteristic of a society because it may produce an increase in anxiety as opposed to an increase in happiness. In discussing the commodification of youth culture, Borchard (1999) writes, “the ironies become layered, distorted, almost as if we are lost in a fun house” (10), which is an analogy for the ability of commodities to disable consumer objectivity while the consumers enjoy that which is consumed without critical judgment. McCreanor et al. (2005) studied the commodification of youth experience as a means for encouraging their consumption of alcohol. While these researchers have all focused on different aspects of the process of commodification and its effects, they all express the connection of personality identification of a product to the consumer as a means for heightened consumer appeal.

While projections have been made about the identifying characteristics of society and psychology that influence action sport participation (Lyng 1990), discourse regarding the reality of action sports’ identity commodification and consumption have not been connected to consumption habits being a process of individuation, meanwhile, limiting the amount one thinks about why they project themselves the way they do, or dampening reflexivity (Allan 1998).

**Consumption**

Bocock (1993) elaborated on consumption through historical patterns, predominantly that of Great Britain following World War II. This historical context paints the conditions for which particular habits of consumption are formed. Through Hoffman’s (1959) account of how people present
themselves in daily life, the discussion of putting oneself on stage, constructing a front, and the managing one’s impression to others, a relationship connection may be drawn to consumption if one understands that goods must be consumed in the process of managing one’s self-presentation. This is the relationship between the consumption of certain products and how those products allow one to channel her/his self image or the identity she/he would like to project to others around her/him on a daily basis. Mittal’s (2006) research elaborates on how products become the consumer’s extended self through the perceived ability of the product to reflect the consumer’s sense of identity, and the product’s ability to link brands to respective components of the individual. In a related study by Chatterjee (2007), the research asserts that consumer identities are profiled so that companies can package their products in a way that the consumer may find them more appealing because it represents the consumer’s identity.

**Identity and Subculture**

“Identity” is a term that has come out of Freudian psychology, but has been more significantly researched and discussed by Erik Erikson. Erikson (1975) describes identity as a “subjective sense as well as an observable quality of personal sameness and continuity, paired with some belief in the sameness and continuity of some shared world image” (20). Among the notable works included in social identity discourse, Tajfel (1983) defines “social identity theory” as “that part of an individual’s self-concept, which derives from their social group (or groups) together with the value and significance of that membership” (Tajfel 255). This means that when a person is a part of a social group, the group assists in that person’s determination of who she/he is based on her/his recognition of the value and significance of the position she/he holds within the group.

According to Blackman (2005), the term “lifestyle” has been constructed out of the sociological work of postmodern theorists who derive perspective from thinkers like Marx (1848), Weber (1946), and Maffesoli (1988). While Blackman (2005) introduces this term as an alternative to the term “subculture” for use in post-subcultural studies, Shildrick and MacDonald (2006) counter by arguing that post-subcultural theory “is in danger of producing a distorted and incomplete portrayal of contemporary youth culture” (128). With that, Stahl (1999) describes subcultural theory as the “heroic rhetoric of resistance, the valorization of the underdog and outsider, and the reemergence of a potentially political working-class consciousness.”

**High Risk Behavior: Extreme, Action, and Lifestyle Sports**

Research regarding voluntary risk-taking has produced varieties of studies ranging from same-sex partnerships and the transmission of AIDS/HIV
to gambling and drug use. As a result, many terms revolve around the discourse of voluntary risk-taking, such as “sensation seeking” (Zuckerman 1990) and “edgework” (Lyng 1990). Other studies have focused on building an understanding of commercial representation that persuades novice adventurists to participate through the sanitization of the threat of danger of participation (Kidder 2002; Palmer 2004). As a result, the discourse surrounding high-risk behavior overlaps with that which incorporates those sports most commonly labeled as “extreme,” “action,” or “lifestyle sports.”

Rinehart and Sydnor (2003) state that sports labeled “alternative,” “extreme,” “lifestyle,” “adventure,” “X,” and “gravity” are those that are burgeoning in post-contemporary transnational times (I). Wheaton (2004) calls attention to the rapid growth of recreational pursuits in the past decade and a half. Similar to skateboarding and snowboarding, these are recreational activities that have been labeled “extreme” or “lifestyle” and also stand for alternative sporting values (Wheaton 2004). While the description of these sports varies, the individual nature of them does not. The difference between these activities and those that are labeled “mainstream” is expressed through the concern for their meanings, values, statuses, identities, and forms (Rinehart 1998). Midol and Broyer (1995) describe the counterculture roots of the social movements that took place in the 1960s and 1970s as influential to the creation of these values and identities. Many of the alternative recreational activities have characteristics that differ from the traditional rules of sport and competition; most have no rules at all. Furthermore, Bale (1994) states that alternative sports subvert the western sports model, which is the conventional format in which western sporting events are carried out (e.g., quarters, halves, periods, timeouts, fouls, etc.).

Counterculture

“Counterculture” is a word that is quite ambiguous; it refers to the designation of a subverted set of values in comparison to the core culture of a population’s inhabitants (Heath and Potter 2004). Heath and Potter (2004) offer an elaborate description surrounding the success of the 1990s grunge band Nirvana and the suicide of its lead singer, Kurt Cobain, to express how it is that counterculture becomes part of the consumer culture. Heath and Potter (2004) also draw the historical context for this understanding by elaborately outlining the counterculture values of 1960s hippies and their subsequent repositioning to the suburbs, void of what was once the “counter” position. Heath and Potter’s (2004) work provides a reference for how the commodification of hippie, punk, and, in the case of Nirvana, grunge culture serve to delineate the consumers from the original subversive ideology that was inherent to the movement’s origins. The subcultural
movements described and their subsequent commodification produced a
good reference to what has happened in action sports.

Postmodernism
To elaborate on postmodernism without mention of modernism is a terrible
mistake because it deprives the reader of the basic context for understanding
postmodernism fully. “Modernism” is that formal mode of thinking that
believes in order and sanitization of environment throughout all possible
facets of society, and can simply be equated to the spread of industrialized
“useful in implying the links with modernism, while at the same time
indicating a substantial move beyond/away from it” (1). Featherstone
(1991) elaborates that postmodernism engulfs that which is a rejection or
subversion of the modernist perspective. Featherstone (1991) also points out
that postmodernism has reached across disciplines to provoke the minds of
scholars in music, art, architecture, fiction, film, drama, photography, literary
theory and criticism, philosophy, anthropology, sociology, and geography
because postmodernism has cut against the grain of the traditional discourse
within each discipline. Postmodernism’s relevancy to the current research
is drawn from the media-centric landscape of today’s society and the
ubiquity of image as an influential mechanism. As an analytical approach,
postmodernism defies disciplinary boundaries and is an important element of
criticism because it allows the analyst to refuse the assumption of a single and
stable meaning.

Electronic Colonialism Theory
McPhail’s (2007) “electronic colonialism theory” (ECT) describes how, in
current times, the flow of information through electronic media has the
potential to influence the minds of those viewing the content. A main
assertion about ECT made by McPhail (2007) is that the aim of ECT is “to
capture the minds and to some extent the consumer habits of others...[and it] focuses on the global media influence on how people think and act”
(23). It is this perspective that encouraged the research of Hackett (1989),
who researched the influence and relevance of the mass media on society’s
political life. Spennemann et al. (1996) stated that the nature of electronic
colonialism, as opposed to traditional colonialism, which required ground
presence of a colonizer, does not require the presence of the colonizer in the
colonized area because it exercises imperialist tactics through the utilization
of technological developments. His research focused on the Internet
as a major facilitator of electronic colonialism, while briefly discussing
the potential for the Internet to be “a democratizing communication
breakthrough which greatly expands individual freedom and autonomy”
ECT and the two subsequently referenced studies express the potential for harm through the flow of information electronically, while Hackett’s (1989) research exposes the presence of this happening on television and film and the research of Spennemann et al. (1996) does so in relation to the Internet.

METHODOLOGY

Paradoxically, the participation of one who identifies with action sports and participates through consumption habits restricts his/her recognition of the set of values manifested by the commodified group, which evolved in opposition to traditional society. In other words, every time someone new wants to participate in action sports, it is the act of consuming the goods needed to participate in that sport that blocks the participant from acknowledging the set of values held by the originators of that activity. This process is called “dampened reflexivity,” and the term denotes the ability of continuous depiction of signs and symbols to disengage the critical thought process regarding oneself (Allan 1998).

With snowboard cinema acting as a ritual practice of image reception, this media is expressed to dampen reflexivity. The researcher will examine what signs and symbols are presented to the audience through the depictions that reinforce the identity of a snowboarder. With this snowboarder identity being outlined as one that has clearly been commodified for consumption, the commodified identity tells the consumers who snowboarders are, how snowboarders act, and the way snowboarders dress. ECT is used to express the damaging effects of this media sent abroad, as the content has no rating system or organization to regulate the flow of these video productions. The convergence of independent snowboard cinema and network cable broadcasting signify a new trend that makes the critique of such material increasingly vital as the material reaches a world audience.

Artifact

The researcher selected the film Black Winter (2009), produced by Standard Films, as the artifact in focus for multiple reasons. First, Black Winter is a snowboarding film, and snowboarding has received solid attention from writers and researchers (Rinehart and Sydnor 2003; Humphreys 2003; Howe 1998) as the largest and fastest growing action sport in the United States. Second, the research question asks how it is that these niche market films influence their audience, making it important to choose a video that reached a large audience. With Black Winter being sponsored by Fuel TV, a unit of Fox Cable Networks, segments of the video were aired through the television station’s broadcast of The Standard Snowboard Show (a program produced
by Fuel TV to highlight Standard Films projects that featured sponsored snowboarders), so it was not only able to reach a larger audience, but it also represents the new trend of co-optation existing in the genre. By reaching a larger audience than most films in the action sports film genre, Black Winter is able to influence more viewers, thus making it a good selection for analysis. Third, Black Winter includes fairly balanced and neutral depictions of athletes in the sense that it does not cater to any specific sub-genre of the sport as other videos usually do. Finally, the 2010 Winter Olympic games provided a context for why this type of research is necessary, when Japanese snowboarder Kazuhiro Kokubo was criticized on the world stage for what was claimed to be inappropriate self-representation that reflected negatively on his country. In a global marketplace, it is important that the producing culture understands the influential elements that are detrimental to the receiving cultures.

Postmodern Analysis and Deconstruction
A postmodern approach is taken in analyzing Black Winter through deconstruction, a method developed and used heavily by philosopher Jacques Derrida (1976). “Deconstruction” is a tool that has broached heuristic discourse exposing new understanding about messages and symbols by examining how a sign or symbol constructs meaning, rather than what the meaning is. Deconstruction stems from the linguistic field of semiology developed by Ferdinand de Saussure (1959). De Saussure’s work presents a model of signs that assert a diametric element to every sign: the signifier and the signified (1959). The “signifier” can be described as that which provokes some sort of response, while the “signified” is the actual response that the signifier tries to produce, thus expressing their diametric relationship. The deconstruction of niche market snowboard films is conducted here to reveal how the video scenes present particular signs that refer to a presumed truth of certain values and beliefs about the world. Researchers (Koerner 1997; Kusz 2004) have argued that the characteristics of action sport athletes offer a new form of rejuvenated American masculinity, and that there are inherent American values portrayed in action sport athlete presentations. Rinehart (1995) argued that the mainstreaming of extreme sports includes an inevitable creation of dynamic relationships between fans, participants, and sponsors through the commodification of the activities, thus facilitating mass appeal. Using a postmodern approach to deconstruct Black Winter allows the researcher to expose and label particular signifiers within the film to evaluate what meaning is transmitted, or signified, to the audience through the visual message. As semiology suggests, the researcher exposes how this genre of film constructs meaning for the audience.
Black Winter is comprised of 16 total scenes, with the first and last of those scenes each displaying the film’s opening and closing credits, respectively. The 14 remaining scenes were each dedicated to individual riders who showcase their talent at resorts, in backcountry environments, and in urban spaces. The scenes have a running time varying between 32 seconds and over 5 minutes, so the scenes selected were based on classification of content rather than length of scene. Categories are classified by either expressing a particular type of riding that is specific to certain conditions and environments, or the actions and statements of the individual while not snowboarding. These labels are as follows: commentary/lifestyle, resort park, big mountain/backcountry, and urban. The “commentary/lifestyle” category is that which depicts riders talking and doing things in association with the snowboarder’s identity presentation, but these scenes do not show them actually riding a snowboard or doing tricks. The three remaining categories each cover the environments that snowboarding participants are utilizing when they engage in the activity. “Resort park” is the category used to group those clips that have been shot at a resort on artificial features; the “big mountain/backcountry” clips have been categorized based on their location being in mountainous open spaces where access requires a snowmobile or a helicopter; clips grouped in the “urban” category are those that depict riders in urban spaces sliding handrails, cement ledges and walls, and other non-natural features.

One scene representative of each of the four classified groups is selected, focusing the researcher on four of the total sixteen scenes. The scenes chosen for deconstruction are selected based on how representative the scene is of the classified group. The four scenes selected needed to encompass all categories of classification because there are some riders gravitating toward one type of snowboarding and others that test their skills on a variety of obstacles and environments. As such, scenes featuring Tornstein Hormgo (Scene TH), Xavier De Le Rue (Scene XD), Halldor Helgason (Scene HH), and Leanne Pelosi (Scene LP) have been chosen for deconstruction. Scene TH displays the widest variety of riding in the feature, exercising Hormgo’s prowess on resort park, backcountry, and urban features, each with running times just short of five minutes. Scene XD offers just over three minutes of strictly big mountain riding, which is described as high stakes, steep and rocky terrain through which the rider must negotiate the descent. Scene HH is predominately portrayed in urban spaces with a length of over three minutes; it also includes some resort park features as well. Finally, scene LP was the only scene of a woman rider. With a running time of 32 seconds, scene LP is the shortest scene in the video. All of these scenes were selected to represent the full spectrum of snowboarding images depicted in Black Winter.
Arguments Against Deconstruction

The rejection of deconstruction as a just mode of producing unrecognized meaning is clearly expressed by Ellis (1989), who claims deconstruction is only effective because it relies on the naiveté of the audience to produce new understanding of something that is not necessarily new itself. This assertion does not hold weight against the current research because it is not the audience’s naiveté that produces the new meaning, but the scholars work to outline the relationship between identity in postmodern times, action sports media, and ECT. Other critics (Bloom 1979) write in opposition to deconstruction with an argument that is focused on literary deconstruction, which is not the aim of this study. Royle (2000) justified studying film with a deconstructive lens with his assertion that the combination of deconstruction and film studies was inevitable (125).

PROCEDURE

The expressed categories are each representative of specific elements of the film that connect to different aspects of the viewer’s identity. The film’s scenes facilitate the acceptance of a particular referential and objectified truth, or a reference for understanding what the real experience is like while simultaneously objectifying the identity of a snowboarder. Following selection, each scene was deconstructed to expose signifiers in the frame, which were evaluated to expose the signified meaning expressed through the signifiers. The signified messages were examined to produce a clear connection to American cultural values, which is the producing culture of the artifact.

Rider appearance and equipment in each clip were deconstructed to express how the film’s cinematographers were able to reinforce nonconformist, individualistic characteristics that resonate the core values of the sport to the video audience. Some scholars (Humphreys 2003; Howe 1998) have recognized these nonconformist, individualistic characteristics as something inherent in the early days of the sport, as it was conceived within the skateboarding and surfing genres. However, these scholars have also recognized that the aforementioned values have subsided now that the industry is controlled by multinational corporations and organizations that have sanitized the sport. The anomaly exists, then, in the continuation of using the original core values for marketing purposes, giving rise to a genre that seemingly subverts the mainstream while coalescing with it.

The weatherproof clothing, predominantly worn in oversized fashion by snowboarders, became a defining characteristic that separates the core from the peripheral participator through the unconventional form of self-presentation. Karsten and Pel’s (2000) explorative study on skateboarding
reported that skateboarders wore baggy clothes as an expression of alternative masculinity. Also producing results regarding baggy clothing, Alvez (1994) reports that baggy clothes are a window to violence because they can easily be used as hiding places for weapons. Also viewing baggy clothes as offering hiding places, Dabney, Hollinger and Dugan (2004) report on baggy clothing’s ability to assist shoplifters. From an intercultural view, Lee’s (2001) research on Hmong American high school students reports a statement from an interview in which a parent claimed that baggy clothes are a signifier for trouble. All but one of these studies report negative findings toward baggy clothing; while the author is not pointing this information out to claim an alternative masculinity is a negative thing, rather, to assert that violence, theft, and a parent’s exclamation of trouble being signified by baggy clothing do reflect the negative connotation associated with the style.

RESULTS

Observation of the four selected scenes exposed the continuous depiction of signifiers that present the audience with the identity of a snowboarder through the depictions on screen. The film’s scenes become a reference for the identity of a snowboarder and offer objectified truths about who a snowboarder is, how one executes maneuvers, and, to a certain degree, how a snowboarder acts in and responds to society. Viewing such films becomes a ritual process that stabilizes the depicted identity as the real type of identity of the athlete while offering the brand signifiers for the consumable lifestyle products. The logos of different snowboard companies are clearly present in most shots of each scene, offering the audience symbols identifying a brand that produces goods of the commodified identity.

The branded logos become the signifiers for the companies that produce authentic products for the snowboarder market, as the brands and their products reflect this authentic image of what a snowboarder is, and influence consumption by participants. A process of reinforcing one’s identity occurs through the consumption of the products and brands that are presented in the scenes. As consumers are influenced to purchase products of the brands presented on screen, the products are packaged with the commodified snowboarder identity that is present in Black Winter. The act of consumption becomes a participatory practice because the product they consume reflects the identity that has been established in their minds by a film as the authentic snowboarder identity. With that product transmitting the commodified identity’s values to the consumer, that consumer feels more like a participant.
DISCUSSION

The fact that *Black Winter* depicts a postmodern identity of a snowboarder is important because of how the images influence the film’s audience. Whether the images are received within the producing culture or internationally, understanding the ramifications of constructing identity through consuming products, a process labeled “consumption individuation,” is a main concern of the researcher. More specifically, the researcher seeks to understand how rebellious, subversive, or counterculture values are transmitted through the consumption of goods packaged with a commodified identity.

Recognizing the convergence of cable networks and independent niche media producers that *Black Winter* represents, it is important to pay attention to the development of the broadcasting that caters to the segmented audience of action sports enthusiasts. Fuel TV’s internationality presents a new wave of action sports lifestyle material to an increasingly large global audience, making this research timely. As critical researchers, we must question and critique the role of media conglomerates taking hold of a subculture through commodification of that group’s identity and respective lifestyle in an effort to attract a larger audience for profit.

IMPLICATIONS

With a clear profile of the snowboarder identity existing and being promoted as a commodity in foreign markets, it is important to recognize the flow of this content as it has the potential to influence other countries. This fact, the researcher infers, exposes the need for a regulatory organization that is both aware of the values of the producing cultures, and those of the cultures that consume the media to enforce a rating system on the films.

The example of Kazuhiro Kokubo, the Olympian who was criticized for not conforming to traditional Olympic values, nor those of his home nation, Japan, is a reference for the effect of commodifying an identity. Kokubo, who was viewed as having chosen to adhere to values characteristics of the snowboarder identity by expressing a reluctance to align his appearance with the traditional mentality of the Olympics, expressed the affect of video content reinforcing the audience’s understanding of who snowboarders are and how they act. The subversive, counterculture values that were inherent to the core foundation of the sport continue to be exploited as that which defines the identity of a snowboarder, which is anomalous when one considers that the industry is run by multinational corporations that only use this image to bolster sales through market identification. The projection of this media abroad creates potential issues through content reception because the receiving audiences’ values are farther away from those of the culture in
which the material was produced. Current depictions of this media place the emphasis on English-speaking athletes who are predominately white males, as the content moves throughout the globe.

LIMITATIONS
The fact that this study was the researcher’s first attempt at work of this scale and the time constraint of the semester limited how much he could work on the research. Also, because of the interdisciplinary lens used in this research, the researcher was required to read a great breadth of information, presenting more time restriction to the synthesizing of data.

One characteristic of the media that may be viewed as a limitation is Fuel TV’s sponsorship of *Black Winter*. As a unit of FOX cable networks, Fuel TV was able to contribute more to the film’s budget than many other film sponsors. This fact may have also sanitized parts of the video because Fuel TV knew that the material would be broadcast abroad. The fact that the researcher did not communicate with anyone from Standard Films or Fuel TV may be viewed as a limiting factor because doing so could have produced information regarding the film’s budget and Fuel TV’s contribution to the project from one of the two organizations.

CONCLUSION
The researcher seeks to further this research by conducting a field survey or focus group, in which the aim is to gather data about the audience’s feelings toward the depictions that action sports media presents them. To ensure that the phenomenon described through this research is not something that is specific to snowboard cinema, it is important to extend our focus onto other action sports media producers, especially those that are converging with network television broadcasting.

Considering the ubiquity of the Internet and the access to niche media that it creates, the researcher finds it important to examine differences between frequency of use and credibility of Internet video compared to DVD viewing. This is invaluable to the current research because it may open more doors to understanding how this media content is being absorbed abroad, and, furthermore, the differences in how an audience perceives the two media as authentic and credible.
REFERENCES


The Social Life of Basket Caps: Repatriation Under the Native American Graves Protection and Repatriation Act, in Hopes of Cultural Revitalization

by Vanessa Esquivido
Faculty Mentor: Dr. Annette Reed

ABSTRACT
On November 16, 1990, Congress passed the Native American Graves Protection and Repatriation Act (NAGPRA), which is a federal law that forces institutions with any federal funding to repatriate specific objects and human remains back to the rightful, federally recognized Native American tribe. There have been only two cases of basket caps being repatriated under NAGPRA. One reason so few basket caps have been repatriated lies with the strict wording of the law and interpretation. Therefore, in an effort to include all types of basket caps under NAGPRA, this study will demonstrate the need for a more holistic perspective concerning basket caps.

A common tragic history links the Native American communities in California. Walking through a museum can be a very different experience for a Native American versus a non-Native person; having ceremonial objects, other objects used for cultural practices, and the remains of actual ancestors on display hurts Native people to the core (Cooper 2008). Karen Cooper, Cherokee, author of Spirited Encounters: American Indians Protest Museum Policies and Practices (2008), discussed the practice of displaying Native American remains and how it was accepted in public museums until the mid-1900s. Throughout this paper the terms “Native American,” “Indian,” “American Indian,” and “Native” will be used interchangeably to refer to indigenous people. “Indian tribe(s)” is a term used loosely to describe bands, communities, nations, or organized groups who are given special programs and services by the United States of America (Public Law 101-601).

On November 16, 1990, Congress passed a law giving Native people a chance to regain ownership of their objects and human remains from specific institutions: the Native American Graves Protection and Repatriation Act (Public Law 101-601). NAGPRA is a federal law that gives protection to Native remains and calls for institutions that receive any federal funding to
repatriate items to federally recognized Native American tribes (Public Law 101-601).

Although Congress passed NAGPRA 20 years ago, there are still many institutions that have not yet repatriated Native human remains and important ceremonial objects. There have been 20 years of repatriation and some healing that has been going on in the Native community, but many objects and Native ancestors are still “held hostage.” Ceremonial items are the most obvious items to be repatriated, but there is no protection in NAGPRA for the everyday objects. Though there are many areas of NAGPRA that need study, the present research focuses on northwestern Native American basket caps. Basket caps hold many functions in Native society; basket weavers create basket caps for different reasons (for example, there are widow caps, work caps, and dance caps). All basket caps have significant importance within Native American life, and this research discusses the importance of all basket caps to Native peoples.

Native Americans in northwestern California experienced genocide and extermination during the Gold Rush, which created an upheaval of their society. California’s Indian population in 1845 was estimated at 150,000, gold was discovered in California in 1848, and by 1870 the Indian population declined to 30,000 (Rawls 1984). Economic times put Native people into difficult situations, such as being forced to sell sacred objects to feed themselves and their children. The process of colonization disenfranchised Native people. Through these hard times, Native American culture was highly sought after. Some collectors purposely sought to buy basketry and ceremonial regalia (ceremonial dress) from Natives who could not support their families even with the proceeds. This trend accounts for sacred objects and cultural patrimony coming to reside in private institutions, museums, repositories, and other collections. Considering their past of oppression, suffrage, and disenfranchisement makes the fact that Native people are still trying to reclaim their sacred objects, cultural patrimony and their ancestors’ remains that much more compelling.

LITERATURE REVIEW

There is limited research that connects NAGPRA and basket caps, but adequate research on the two as separate entities exists. Two specific texts dedicated to Native basket caps, *Yurok-Karok Basket Weavers* by Lila M. O’Neale (1932) and *Her Mind Made Up: Weaving Caps the Indian Way* by Ron Johnson and Coleen Kelley Marks (1997). Some text had sections pertaining to basket caps such as Brian Bibby’s book, *The Fine Art of California Indian Basketry* (1996) and Pliny E. Goddard’s book, *Life and Culture of the Hupa*

O’Neale finished her field work in six weeks and published her dissertation *Yurok-Karok Basket Weavers* in 1932. O’Neale took a different route in her methods, changing some of the ways anthropologists did field work by writing from “the Native’s point of view.” O’Neale listed the names of her 50 informants who were all weavers (25 Karuk, 17 Yurok, 7 Hupa, and one with no tribal affiliation) in the appendix of her book, *Yurok-Karok Basket Weavers*. She also took many photos of baskets and basket caps in the field and asked the weavers about their thoughts on the pictured baskets. O’Neale’s work is a great source of methodological information on basket caps and it was not until 64 years later that Ron Johnson and Coleen Kelley Marks would come along to continue where O’Neale left off.

Johnson and Marks (1997) wrote *Her Mind Made Up: Weaving Caps the Indian Way* after interviewing Yurok, Karuk, Hupa, Wiyot, and Tolowa peoples on their knowledge of basket caps. The authors created a storyline with their method, taking each cultural group and starting off with their most renowned weavers. The researchers would then interview contemporary weavers, and went on to discuss the changes from O’Neale’s 1932 work and their current findings.


Steven Vincent, author of *Indian Givers* (2005) has opposite views on NAGPRA from the other authors and researchers cited previously. Other authors add to the literature with discussions about workshops that bring Native peoples and museums together to search for common ground on and education about NAGPRA. These authors include Allyson Lazar who wrote *Repatriating More Than You May Know: A Handbook and Resource Manual on the Potential Chemical Hazards of Native American Cultural Items to be Repatriated* (2000); and Drs. Luby and Nelson who wrote *More Than One Mask: The Context of NAGPRA for Museums and Tribes*, published in *American Indian Culture and Research Journal* (2008).

**NAGPRA**

The Native American Graves Protection and Repatriation Act is Public Law 101-601. NAGPRA was passed to assist Native Americans, the indigenous population of the United States of America, in protecting the future of their
ancestors’ remains and objects that are located in institutions. For a long time, it was common practice to dig up American Indian grave sites. The excavators or “grave robbers” sought profit and romanticized these notions as adventurous (Mallouf 2000). Trope and Echo-Hawk wrote that, “Human remains were obtained by soldiers, government agents, pothunters, private citizens, museum collecting crews, and scientists in the name of profit, entertainment, science, or development” (2000, 125). During the rampant collecting and selling of Native America, there was nothing that the Native descendant community could legally do to stop it. They often have been disregarded as a living culture and not seen as having equal rights; thus, they remained on the sidelines watching their ancestors’ remains being collected and displayed by institutions.

NAGPRA was also created to repatriate items that have cultural significance to a tribe. This part of the law allows Native groups to make claims on human remains, funerary objects, sacred objects, and cultural patrimony (Public Law 101-601). Tribes can make a claim depending on their cultural affiliation, which can be accomplished by proving they are the most likely descendent between Indian tribes and their ancestors (Public Law 101-601). “Associated funerary objects” are items found with human remains. They can be cultural or anything that had to do with the death rite of that individual. These objects could have been placed with the individual at the time of death or placed at a later time (Public Law 101-601). “Unassociated funerary objects” are objects that have not been kept in conjunction with the human remains (Public Law 101-601). “Sacred objects” are objects that are needed by the Native American for ceremonial purposes that can also be repatriated (Public Law 101-601). “Cultural patrimony” refers to not individually owned but communally owned items that have historical, cultural, or traditional importance to a Native American tribe; these items are also subject to repatriation under NAGPRA (Public Law 101-601). The Code of Federal Regulations 43 under Public Law 101-601, requires consultations to take place after a claim is made and states that “federal agency officials must consult with known lineal descendants and Indian tribe officials…that are, or are likely to be, culturally affiliated and demonstrated cultural relationship with the human remains, funerary objects, sacred objects, or objects of cultural patrimony.” “Repatriation” is the change in title (recorded ownership) of the object or human remains from the institution to the Native tribe.

NAGPRA helps most Native people, but no law is perfect. One problem is that NAGPRA only applies to federally recognized tribes; in California, many tribes do not have federal recognition. A “federally recognized tribe” is an “…American Indian or Alaska Native tribal entity that is recognized as having a government-to-government relationship with the United States…
Federally recognized tribes are entitled to receive certain federal benefits, services, and protections because of their special relationship with the United States” (Indian Affairs 2010). This aspect of NAGPRA leaves many tribes without a government-to-government relationship and, therefore, the inability to make claims under NAGPRA. According to the NAGPRA Web site, there have been 4,303 repatriated sacred objects, 948 repatriated cultural items, and 822 repatriated objects that are both sacred and patrimonial (as of September 30, 2009). This number could be higher if non-federally recognized tribes were also allowed to make claims on their ancestors’ remains and cultural items.

Perceived Abuses of NAGPRA
According to Steven Vincent, author of Indian Givers, “It’s the abuse of this process [NAGPRA] that angers many archaeologists and anthropologists. They argue that NAGPRA has given Native Americans license to claim human remains whether or not there is a genealogical link, often at the expense of scientific knowledge” (2005, 36). Vincent goes on to discuss the abuse of NAGPRA by Native tribes and the loss of scientific knowledge of North America (2005). Vincent also discusses how “many Indians converted to Christianity…and sold or gave away objects that they once considered holy. Now encouraged in part by NAGPRA, Indians are rediscovering their ancestral beliefs and demanding the repatriation of these items” (2005, 40). Vincent does not cover the genocide or the colonization of Native peoples.

Basketry
California is known worldwide for the remarkable basketry of northern Native Americans (O’Neale 1932; Shanks 2006). According to O’Neale (1932) and Goddard (1903), the Klamath River people (including the Yurok, Karuk, and Hupa) twined their baskets. Basketry is a way of life for California’s Native peoples, according to Bruce Bernstein, the director of the Museum of Indian Arts and Culture/Laboratory of Anthropology in Santa Fe, New Mexico, who is a basketry scholar. Author Brian Bibby quoted Bernstein, who observed that “Baskets were integral to the activities that were the foundations of life—infants were carried in baskets, meals were prepared in baskets, and baskets were given as gifts to mark an individual’s entrance into and exit from this world.”

Baskets have a voice and if we listen to what they say, we can obtain a wealth of knowledge from basket stories. Authors Turnbaugh and Turnbaugh, who wrote Basket Tales of the Grandmothers (1999), looked at basketry like a language and argued that one can observe the changes in culture through basketry. Basketry is also helpful when looking at the transportation of vital information and the importance of oral tradition (instead of the written form) from generation-to-
generation (Turnbaugh and Turnbaugh 1999). One can look at the start of the basket and tell who wove it or who taught the weaver.

Weaving is no easy task. The correct materials must be gathered and properly prepared before one begins to weave a basket (Shanks 2006). Coiled and twined are the two methods to weave a basket (Shanks 2006). The materials used in basket making were based on what was available within the geographic region of the weaver. While gathering materials to weave, weavers had to have great knowledge of their surroundings. The women or men (who also wove) had to know the season in which material could be collected and where the best materials were located for gathering. According to Shanks (2006), “these [plant] materials must have proper length, width, strength, flexibility, and beauty” in order to weave a functional basket. There are prayers that are said/sung while gathering to show thanks to the plants that produced and created the material for basketry (Shanks 2006).

**Basket Cap Materials**

Ralph Shanks and Kathy Wallace (a Karuk, Yurok, Mohawk, and enrolled Hoopa Valley Native American) were interviewed by the present study’s author on May 21, 2010. They described some of the frequently used materials to weave a basket. Beargrass (*Xerophyllum tenax*) is off-white and used for overlay work. Many of the basketry materials are best gathered after a fire has burned the gathering area, which creates new growth that is straighter and more pliable. Peeled hazel (*Corylus*) and grey willow (*Salix*) often serve as the foundation rods of a basket. The stem of the maiden hair fern (*Aduantum*) is used to add color for designs that have two sides: a dark red side and a shiny black side, with the red side being the more brittle one. It is the only material that can be used fresh because it does not shrink much. Wallace also discusses the woodwardia fern (*Woodwardia*) and how it is dyed a reddish color and has two strands that must be taken out and dried. These strands are chartreuse in color, which ages to tan until dyed with the inner white alder bark. Porcupine quill also is used in basketry; the tubular quills are rounded to overlay the root. The quills are dyed with wooden moss (lichen) and Oregon grape root and they are hard to manipulate. Christie Vigil (a Yurok and Hupa Native American who is the administrative assistant at the California Indian Basketweavers Association) commented that gathering is a long process; one has to gather for a year before beginning to weave (interview by author).

**Weaving Basket Caps**

The Yurok, Hupa, and Karuk tribes, located on the Klamath River in northwestern California, still wear traditional basket caps, according to Wallace (2010). Basketry is an extremely difficult skill to develop and to make a basket cap is a high achievement. O’Neale explained in her 1932
dissertation, *Yurok-Karok Basket Weavers*, that “All might weave baskets, only a few could make a wearable cap” (43). O’Neale specifically discusses the three types of basket caps (root caps, fern caps, and grass caps), and how they are usually named after the predominant material (1932). In the book, *Her Mind Made Up*, an interview with Georgiana Trull reported that, in Yurok, “the basic names are *athl-wah eka* (Indian cap) and *wapa-wah-eka* (spruce cap)” (Johnson and Marks 1997).

There are three zones in a basket cap. The first is the center of the basket up to the three-strand twine where the basket starts to bend. The second zone is the main portion of the basket, the portion that has the designs. The third zone is the upper edge of the cap that fits on the brow (O’Neale 1932). In an interview with the author, Wallace explained that,

> When you weave a cap you represent your whole family, and more likely than not they’re going to be worn at ceremonies and going to be scrutinized and if it is really good they will come up and ask, ‘Who made the cap?’ And if it is really bad, people will come up and ask, ‘Who made the cap?’ The cap maker and the weaver represent your family.

Basket cap weaving shows talent; there is no measuring of the person’s head that the cap is being made for, there is no trying the cap on, and yet these caps remain perfect in dimension. They are made to match the dimensions of the wearer’s hand. In their book, Johnson and Marks (1997), and Wallace, in an interview with the present author, each explained the technique in which the button (center of basket) to the edge is measured from the tip of a person’s finger to the second knuckle, which is how the weaver knows when to start the second zone of the cap. The second zone is measured by the length on one’s middle finger. The third zone is measured by the length on one’s thumbnail. Once the cap is finished, the wearer should be able to spread her/his hand open inside the cap.

**Types and Uses of Basket Caps**

Working caps are rounder than ceremonial caps and made to fit the head tighter. Working caps are worn to help with the pressure of the tumpline from a burden basket (O’Neale 1932) or a baby basket, according to Wallace (2010). Wallace also talked about working caps having fewer colors and designs, but still having the three zones described previously. An example of a working cap is presented in Figure 1, in which Mary Frank (a Yurok Native American from Humboldt County, California) is shown in 1895 wearing a burden basket (a basket for gathering) on her back with a basket cap. Wallace noted that another use for a non-ceremonial basket cap would be to keep long hair back from one’s face (2010).
Ceremonial caps have a different shape and were made from different materials than working caps. Ceremonial caps tended to be flatter on top (O’Neale 192). Bibby, “a highly regarded expert in the song, dance, language, and artistic traditions of Native California” (1996), discussed the sacred caps that Native American women wore in ceremonies. In 1948, Amy Smoker (a Yurok Native American and highly respected weaver) wove a ceremonial basket cap that was decorated by Vivien Hailstone (a Yurok/Karuk Native American and member of the Hupa Tribe) who was also a supreme weaver. This ceremonial basket cap was worn for the Brush Dance performed by young women who had not had any children. Sacred caps, in comparison to the working caps, may be decorated. The decoration on the cap woven by Smoker was decorated with dentalia (shell found on the coast of the Pacific Ocean) and woodpecker scalps, which are bright red in color. This cap is an example of a basket that may be subject to NAGPRA because dentalia and woodpecker scalps are highly valuable in Native culture. “The most expensive and highly regarded of the ceremonial caps were those with dyed porcupine quills and black maidenhair fern. These materials were more difficult to use and required greater weaving expertise,” explained Johnson and Marks, authors of *Her Mind Made Up* (1997). Ceremonial caps are greatly cared for out of respect for the cap, because of the time taken to weave them and because it was believed that the weaver’s spirit was woven into the cap (interview by author).

<table>
<thead>
<tr>
<th>Type</th>
<th>Shape</th>
<th>Material</th>
<th>Method</th>
<th>Design</th>
<th>Zone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceremonial</td>
<td>Flatter on top</td>
<td>Red-dyed Woodwardia fern and black maidenhair fern, beargrass,</td>
<td>Twined with a color overlay on most of the</td>
<td>Many</td>
<td>3</td>
</tr>
<tr>
<td>basket cap</td>
<td></td>
<td>dyed porcupine quills</td>
<td>outside of the cap</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Working</td>
<td>Rounded</td>
<td>Pine/sitka spruce/willow root, beargrass, fewer colors</td>
<td>Twined with minimal overlay</td>
<td>Plain, horizontal stripes</td>
<td>Usually 3</td>
</tr>
<tr>
<td>basket cap</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1. Differences between ceremonial and working basket caps

Men wore work caps made of roots with plain or no designs (O’Neale 1932, 42). Wallace noted that all caps had multiple functions; men’s caps would be used to measure tobacco and to drink water (2010). The Johnson and Marks
(1997) interview with Josephine Peters (a Karuk, Yurok, Shasta, and Wyandot Native American who is a great basket weaver) includes her description of a man’s basket cap. Peters pointed out a raised crown on the man’s cap that creates a small difference in shape. This different shape helps when a man goes to dip his cap in water like a cup (Johnson and Marks 1997, 134). There are also caps that represent the individual’s place in their community, such as a widow’s cap. The widow’s cap is plain, made of roots, and is usually an older basket (O’Neale 1932). Wallace says, “So when you were mourning you usually cut your hair and would wear a real plain cap to show that you were in mourning and you wore it until you were out of mourning…but it let everybody know…and some widows wore it for the rest of their lives” (interview by author). A widow’s cap is shown in Figures 2a and 2b. This widow’s cap is representative of the caps described in the present research; these caps show no design and only two colors.

![Figure 2a. Woman’s widow cap (Sacramento State Anthropology Museum 2010)](image1)

![Figure 2b. Close-up detail of a woman’s widow cap (Sacramento State Anthropology Museum 2010)](image2)

These figures show a woman’s widow cap that was collected by Joel S. Cotton in September 1923, and purchased for five dollars. The cultural affiliation of the cap is Hupa, near Requa and woven by Metaha. The cap stands at 8 cm high, and its rim is 17 cm in diameter by 17 cm in width (Sacramento State Anthropology Museum 2010).

**Repatriation of Basket Caps**
The researcher has identified two examples of repatriated basket caps. In the first case, on December 19, 2007, the Department of the Interior posted on the National Park Service database the Notice of Intent to Repatriate six cultural items, including two basket caps from the Horner Collection located at Oregon State University, Corvallis. Oregon State University (OSU) consulted with around 20 different tribes. These six items were repatriated to Smith River Rancheria, California under 25 USC 3001 (3) (c) as sacred objects (National Park Service 2007). On June 18, 2009, OSU also repatriated three cultural items, one being a basket cap, to the Siletz Reservation, in Oregon,
under 25 USC 3001 (3) (c) as sacred objects. Documentation related to the repatriation stated that the Siletz “attributed the materials used and the style of the basket to be that of Siletz weavers from the northwest coast. Siletz consultants identified the basket cap as a cap that would be used in ceremonial dancing, and the ceremonies continue to take place” (National Park Service 2009). These examples of repatriation of basket caps are rare but set a precedent for rightful tribes to make claims on basket caps to be repatriated.

Unfortunately, repatriation is never simple. It is a lengthy process and it is also sometimes unsuccessful. Sometimes the sweet victory of bringing items home can become another tragedy, due to the toxic chemicals institutions used to prevent bug/insect/fungi destruction of the items (Lazar 2000). According to Lazar (2000), author of *Repatriating More Than You Know: A Handbook and Resources Manual on the Potential Chemical Hazards of Native American Cultural Items to be Repatriated*, the most commonly found poisons in contaminated museum collections are arsenic, strychnine, and mercuric chloride (used from 1800-1940 as contact pesticides). Naphthalene (an insect repellent) was in use in 1890, and was still in use until 2000. Para-dichlorobenzene (PDB), an insect repellent and fungicide, has been in use since 1930 and was still in use as of 2000. Hydrogen cyanide was used between 1930 and 1940 as a fumigant, as was dichloro diphenyl trichloroethylene (DDT) from 1945 to 1970. Lazar creates a list of objects that most likely would be at risk of being poisoned, which included baskets (2000). Because these methods of preservation have been in routine use since the 1800s, there is poor documentation on which objects have been contaminated with what chemicals (Lazar 2000).

The health risks involved in dealing with contaminated objects affect Native people who handle repatriated objects and museum staff who work with collections. In 2001, the National Park Service awarded a NAGPRA grant of $41,635 to the California State Parks agency to provide workshops in California on dealing with contaminated collections. Paulette Hennum, former NAGPRA coordinator with the Department of Museum Services Section, Archaeology, History, and Museums Division, who also has worked with John F. Kennedy University’s Museum Studies students, says of museums and tribes working together,

> Well, this whole grant had to do with that [CA State Parks grant] and examining the problem from the aspect of the state and also the aspect of the tribes. We did a series of workshops up and down the state and brought together Indian people and museum people because it is a joint problem; it is not just one side or the other. Everybody is in the same boat on this (interview by author).
In 2004, Dr. Edward Luby, professor at San Francisco State University (SFSU) and former associate director of the Berkeley Natural History Museums and Dr. Melissa K. Nelson, Associate Professor at SFSU in Native American Ecology/Environmental Studies and California Indian Cultures, had the idea to bring museum staff and Native communities together as done in previous workshops, but with the intent of discussing each other’s needs and wants concerning NAGPRA. Luby and Nelson (2008) observed, 

*In this sense, NAGPRA is definitely a matter of religious rights and freedom and indicates the strong emotional nature of repatriation for Native peoples...we believe that it is important to emphasize that many museums and tribes only began to interact once NAGPRA consultation was mandated. As a consequence, for some museums and tribes, NAGPRA has truly been a transformative experience, though certainly not all of it has been positive.*

**METHODOLOGY**

This study consisted of six interviews. The researcher interviewed three people from the Northwest Native American community with knowledge of basketry. These people are weavers and have cultural ties within the Native American community. With the limited number of Native American weavers, using open-ended questions allowed the weaver to provide and capture her/his knowledge of and experience with basket caps. Most important in this study is recording Native American voices and their stories. The first set of interviews lasted one hour. In the second set of interviews, the researcher interviewed NAGPRA practitioners. Each interview had 10 designed questions for each group (see Appendix).

Every participant signed a consent form for this project. The consent form included the topic of the study, how long the interview would last, and how the information will be stored. The person being interviewed was then allowed to decline or participate in the study (Office of Research Administration 2009). The people being interviewed in the Native American community were weavers and artists. The other interviews were with NAGPRA practitioners who had a long history with NAGPRA and implementing its policies. Each interview was digitally recorded and transcribed.

This research used a qualitative methodology due to the lack of information on basket caps and the limited availability of Native American weavers. The majority of the baskets pictured in the existing literature have no record of the weaver, usually listing only the weaver’s cultural affiliation (Fields
1985). This study by Fields provided information on the difference between ceremonial and working basket caps, and also provided guidelines that will later be used to differentiate between the two types of caps. By combining interviews with Native American people and interviews with professionals working with NAGPRA, this present study could break ground uncovered by O’Neale or Johnson and Marks, and determines what the differences are between ceremonial and working caps.

ANALYSIS

Christie Vigil has been weaving since she was a child of eight- or nine-years old, and she comes from a strong Native American cultural background; her father is a Hupa dance leader who puts on the Jump and White Deerskin dances. Based on her knowledge of basketry, weaving, and basket caps, she explained that there is no difference between a work cap and a sacred cap, that all were sacred (interview by author). Vigil discussed the ethics of weaving, explaining while one weaves, she or he must have a good heart, cannot be on any substances, and should have taken time to cleanse before weaving. The weaver cannot be sick and there can be no weaving for up to a year from the time that a family member passes away. No weaving is done while menstruating. All these factors are limitations on weaving because when weaving, the weaver puts a part of himself or herself into the basket. Vigil has never woven a basket cap but weaves mini and full baby baskets, medallions, and tobacco pouches. She mentioned that her family has basket caps and lends them out for ceremonies (2010).

Annette Reed, Ph.D. (a Tolowa Native American enrolled at Smith River Rancheria) is the director of Native American Studies and an associate professor in the Ethnic Studies Department at California State University, Sacramento. Dr. Reed was taught to weave by renowned weavers, Jenny Mitchell and Mabel McKay. On basket caps and religion, Dr. Reed noted that larger society might think of the caps as inanimate objects, but to Native American people, all things have life and a force, which means the caps are sacred. Dr. Reed (2010) said, in an interview with the author,

> The point of all baskets was that all of them had some type of life. So, when you went out to gather…that you offered prayer…you accepted whatever you found, whatever came to you, whatever was offered to you. Then when you left, you again said prayer. So the whole thing… [You] gather different types of materials at different times of the year and that goes with different seasons and so if we look at that; there are different cycles of life that the plant goes through. As with human beings we go through different cycles of

...
life, so does that plant because that plant also has a life to it, so you gather it at different times.

Dr. Reed believes that weaving is a spiritual process, and that no one can just pick up materials and weave them; it takes time and prayer to weave a good basket. The connection between all aspects of weaving (gathering, praying, storing the materials, and getting the water that is used to soak the materials) is instrumental to the process. Dr. Reed stated, “Also I remember being told by several basket weavers over the years that the things are created for purposes so, for example…a basket cap that is never used or never worn. They say it cries because it is not being used for the purpose it was created for…” Objects are living things and have voices but so do the Native ancestors who are crying because of the treatment of their remains.

Dr. Reed discussed her feelings about how ancestral remains are housed in bags and in drawers at institutions. She talked about how other people would not like their ancestors to be treated in the same manner as Native American ancestors, depriving them of many years of rest. She likens this treatment to discrimination and a type of racism within our society that has allowed the mistreatment of Native American remains. Dr. Reed noted that this problem needs to be acknowledged and eliminated with repatriation (interview by author).

Wallace, a basket weaver and lecturer on basket weaving and California Indian art at San Francisco State University, discussed the materials used for basket caps, saying that the sticks must be very long and narrow in order to keep the shape of a cap and not cause the cap to bow inwards. The quality of sticks for basket caps is hard to come by and the weaver sometimes has to save up for years before gathering enough material to weave a basket cap. Wallace discussed how basket caps are worn by many individuals, including women, men, and young girls, and how practical the caps are. Having a basket cap would be convenient for measuring tobacco (a type of currency) and as a cup for drinking water or holding berries.

Wallace discussed how the production and sale of basket caps kept families alive. Basket weavers would produce caps for the tourist and collector market. Basket caps would generate more money than other baskets because of the workmanship, designs, and colors, which is why collections have small caps that would not fit anyone today; weaving such a cap would take less time and use fewer materials. The basket weaver knew the cap would end up sitting on a mantle or hooked on a wall, never being worn, which is why so many made-for-market caps remained in such good condition.

Cristi Hunter has been working as the instructional support technician at California State University, Sacramento (or Sacramento State) for seven years.
and works with the archaeology collections. Hunter explained her job within the university repository as having her time divided between the archaeology collection and technology work. Hunter, whose desire is that everything goes well in consultation, said that the worst outcome is “to have competing tribes, so you have to make the decision. As the institution, we make the decision of who is the most likely owner with the ethnographic data and the other data that has been looked at picking one group over another. It is very difficult in this area.” The majority of the collections housed at Sacramento State are older collections called “legacy collections.” Hunter has never repatriated cultural items, only human remains.

The author interviewed Paulette Hennum on May 19, 2010. Hennum is the former NAGPRA coordinator with California State Parks, Department of Museum Services Section, Archaeology, History and Museums Division. She discussed being involved with NAGPRA since 1998 and how she has limited experience with repatriation of cultural items. Hennum said that few Native American tribes claim cultural items for repatriation because, perhaps, human remains take precedence. When asked about the weakness or the challenges with NAGPRA, Hennum replied that the main weakness is that unrecognized tribes that would like to have items and remains repatriated to them do not have the legal status to do so (2010). The strength of NAGPRA is the law itself because it has caused so many changes. Hennum said that it is a shame that this type of conclusion (repatriation) had to be by law. The outcome of NAGPRA has completely reversed the roles and the experts are now listening to the Native peoples.

Terri Castaneda, Ph.D. is associate professor and museum director for the Department of Anthropology at California State University, Sacramento, and has been working with NAGPRA indirectly for the last five years (interview by author). Dr. Castaneda has not been directly involved with consultations or repatriations of ethnographic materials, but as someone who has been working in the museum field for many years, she is very familiar with NAGPRA. At present, the Department of Anthropology’s priority is repatriation of human remains. Dr. Castaneda discussed her evolution as a 22-year-old museum worker with a bachelor’s degree in anthropology and a focus in archaeology, who came to the understanding of Native American civil rights and NAGPRA. While working with the Houston Museum of Natural Science, Dr. Castaneda was initially upset by and opposed to NAGPRA, but slowly started to understand and learn about Native history and rights, and the feelings that Native people had about museums and anthropology. Dr. Castaneda has recently worked with basket caps in the museum, working on an inventory of a specific collection. She said, “For me, what the passage of the law ultimately demonstrated was that
Congress—comprised at that time of people who were very senior to me, and certainly with a lot more life experience—understood the human and civil rights implications of the legislation, and thus our nation saw it worthy of passage.” Dr. Castaneda also discussed the law showing a type of empathy for Native peoples confronted with colonization and those who continue to find themselves confronted with ownership and the appropriation of cultural materials through science or any other means. She said, “The challenge is that many people reduce it to a battle between science and religion, as opposed to understanding it as a human and civil rights issue” (2010). Dr. Castaneda also discussed some creative solutions that NAGPRA legislation probably did not anticipate. For instance, she mentioned how the Clarke Museum, located in Eureka, California, holds many items that are apparently loaned out to local tribes and used in their ceremonies. This practice may change the way that tribes think about the disposition of these items over several generations, as objects that were originally owned by individuals—and perhaps not otherwise subject to repatriation—come to be seen as objects of cultural patrimony.

Sacramento State Cotton Basket Collection Review
Figures 3, 4, 5, and 6 show items from the Cotton Basket Collection located at Sacramento State, which have been undergoing the process of inventory for NAGPRA. These baskets are part of the Joel Cotton Collection donated by Dr. and Mrs. Norman Cotton to the university’s anthropology museum on November 23, 1996. Figure 3 shows a twined basket cap. The direction of work is from right to left. Collected by Joel S. Cotton in 1905 and purchased for $3.50 from Carl Purdy, a famous collector and author, this cap is 10 cm in height, 19 cm in rim diameter and 19 cm maximum width. The design type is geometric and is red and black. The cultural affiliation is Hupa from Northern California. The basket weaver is unknown (Sacramento State Anthropology Museum 2010). This basket cap does not have a written description under function besides “Hat” on the basket identification card (Sacramento State Anthropology Museum 2010). As seen in Figure 3, when a basket cap is placed upside down, it can easily be mistaken as a bowl; unfortunately, many caps are wrongfully identified in this manner (interview by author). This basket seems to be woven with maiden hair fern, Woodwardia, and beargrass. Figure 4 is identified as an “old ladies’ cap” on the accession card. This cap is from the Karuk-Yurok cultural area in Northern California. This cap was bought in 1923 for five dollars by Joel S. Cotton. The basket cap is twined white grass and the work direction is from right to left. The cap is 9.5 cm high and the rim diameter is 18 cm (Sacramento State Anthropology Museum 2010).
Figure 5 shows a young woman’s cap from Klamath River, located in Northern California. This basket was purchased for $5 in 1923 by Joel S. Cotton. This cap is 9 cm high and 17.5 cm in max width and rim diameter. The work direction of this basket is right to left and is twined from maiden hair fern and white grass (Sacramento State Anthropology Museum 2010). Unfortunately, there is little information on Figure 6, according to the accession card. This basket is deemed a hunting cap and is twined and was woven by “Blue Creek Nelly.”

The correlations between the importance of basket caps in Native communities and repatriation under NAGPRA are indeed skewed. There have only been three documented basket caps claimed and repatriated, according to the NAGPRA database (National Park Service 2007). This may be due, in part, to the expressed prioritized precedent for human remains to be repatriated first. Yet, there is a common agreement between Native American peoples that basket caps are also considered sacred; they are seen as still living, not just simple objects. Interviews suggest that there is a need to establish a common ground and understanding between people working under NAGPRA and Native peoples, in order to build better relationships.

Unfortunately, due to a lack of funding and staff, institutions that have a legal responsibility under NAGPRA to repatriate items are slow to do so, causing them to remain out of compliance with the law.
LIMITATIONS
This researcher needed to interview more individuals within both the Native American communities and professionals working with NAGPRA. Having an interview with a person who weaves basket caps would make the research stronger.

FURTHER RESEARCH
The researcher would like to explore in more detail the northwestern California basket designs in relation to tribal geographical area. The researcher would also like to continue looking at cultural items in an interdisciplinary way that focuses on different perspectives of Native culture and the implications of laws with philosophical and spiritual connections with Native people. The goal would be to not only look at documentation, but to include collaborating with and interviewing Native Americans about their culture.

CONCLUSION
Looking at the social life of a basket cap is fascinating, from identifying plant materials and learning about the cultural knowledge needed to know when and where a person can gather, to understanding the guidelines of weaving. Basketry is an integral part of life for Northern California Indians. The experiences with those baskets, based on the literature and interviews, mean a great deal to each individual. The number of basket caps repatriated to Native American communities is small but objects have been second priority to human remains. Yet thinking about basket caps as cultural patrimony instead of just sacred objects can hopefully increase the chances of future repatriation to tribes.

With increased repatriation of sacred objects and cultural patrimony, there is cultural revitalization in the Native American communities, as having the materials necessary for ceremonies makes it easier to teach the younger generation the religion. Having basket caps repatriated to a “living museum,” where the museum lends regalia to their community, can make the ethnography of the objects change. Instead of a tribe making a claim on a basket cap solely as a sacred object, the tribe can now make a claim on a basket cap as cultural patrimony because it will not be one person’s object, but the community’s object.
APPENDIX. AUTHOR’S INTERVIEW QUESTIONS

Questions related to NAGPRA:
1. How long have you worked with NAGPRA issues?
2. Have you ever had to deal with cultural items, for example baskets?
3. What is the best outcome for consultation?
4. What is the worst outcome for consultation?
5. Have you ever repatriated an item? And if so, how was this done?
6. Have you ever repatriated a basket cap?
7. What do you think are the strengths and challenges dealing with the law?
8. How does one go about getting funding?
9. What are the policies and procedures for NAGPRA concerning basket caps?
10. What types of chemicals do people need to be concerned about when dealing with baskets?

Questions related to Native community:
1. What is a basket cap?
2. Have you ever woven a basket cap before? Is it harder than a normal basket?
3. What are the differences between sacred caps and working caps?
4. What materials would be used in a basket cap? Both sacred and working?
5. What is a widow’s cap? Is there any other specific type of basket cap?
6. When would a person get their first basket cap?
7. Do men wear basket caps? And if so, what was the function of a man’s cap?
8. In your opinion, what do you think should be done with repatriated cultural items?
9. What do you think is a realistic time period that repatriation is acceptable?
10. When a repatriated item returns to a community, what is done with that item?
REFERENCES


Spanish-Speaking Patients and the Need for Professional Interpreters

by Yadira Ruby Guzman
Faculty Mentor: Dr. Wilfrido Corral

Abstract

In the United States, 47 million people speak a language other than English at home, and 2.6 million adults do not speak English at all. In 2000, President Bill Clinton issued Executive Order 13166, a law requiring that federal agencies meet language needs of all who seek access to their programs and services. Despite this national recognition of the need for professional interpreters in agencies that provide services to those with limited English proficiency, language barriers still exist in health care. The present research, concentrating on the Sacramento area as a representative sample, demonstrates the need for improved interpretation in various levels of medical services.

My mother went to her primary care physician, at a county clinic, complaining of itching and discoloration of her skin, lethargy, and aching joints. The English-speaking physician only understood her skin problem because it was her only visible complaint, and referred her to a dermatologist. While meeting with the dermatologist, she described the same symptoms and the physician prescribed her antibiotics and a cream for the itching skin. Over a year later, my mother was finally diagnosed with primary biliary cirrhosis, which is a type of cirrhosis of the liver, and was then referred to a specialist at University of California, Davis Medical Center (U.C. Davis). She then began to have the appropriate treatment for the condition, although it is not a curable disease. However, if she had had proper interpretation, she would have been treated for the condition from the beginning and it would not have been as advanced as it was when they finally determined the real disease she had. My mother, who is Spanish-speaking and of limited English proficiency, has been a patient of U.C. Davis Medical Center for over three years and not once has been offered a professional interpreter for her appointments.

Fortunately, as the patient’s daughter, I began to attend many appointments with her and to interpret information that my mother did not understand. She is also fortunate to have another Spanish-speaking family member who attends appointments with her. Unfortunately, not all patients have access to
bilingual family members who know medical terminology or who can attend their medical appointments.

The Hispanic population in the United States is 35.3 million, averaging 12.5% of the population in the United States for the year 2000, as shown in Tables 1 and 2 (U.S. Census Bureau 2000). These tables also show that the Hispanic population continues to grow every year by an average of 40%. In this growing population, many people do not speak English or do not speak English well. This creates a problem when they visit agencies or organizations that offer important services such as social services, law enforcement, and health care. This trend demonstrates that there is a need for professional bilingual interpreters at medical appointments because of the tremendous rate of growth of the Hispanic population.

<table>
<thead>
<tr>
<th>Past census year</th>
<th>Hispanic population (millions)</th>
<th>% of Hispanics in total population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>9.6</td>
<td>4.7</td>
</tr>
<tr>
<td>1980</td>
<td>14.6</td>
<td>6.4</td>
</tr>
<tr>
<td>1990</td>
<td>22.4</td>
<td>9.0</td>
</tr>
<tr>
<td>2000</td>
<td>35.3</td>
<td>12.5</td>
</tr>
<tr>
<td>Future census year projected population (as of July 1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010*</td>
<td>47.8</td>
<td>15.5</td>
</tr>
<tr>
<td>2020*</td>
<td>59.7</td>
<td>17.8</td>
</tr>
<tr>
<td>2030*</td>
<td>73</td>
<td>20.1</td>
</tr>
<tr>
<td>2040*</td>
<td>87.7</td>
<td>22.3</td>
</tr>
<tr>
<td>2050*</td>
<td>102.6</td>
<td>24.4</td>
</tr>
</tbody>
</table>

Table 1. United States Hispanic population, 1970-2050. (Source: U.S. Census Bureau, Population estimates from 07/01/00 to 07/31/06. Internet release date: 02/08/08)

<table>
<thead>
<tr>
<th>Past census year</th>
<th>Hispanic population (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>35.3</td>
</tr>
<tr>
<td>2001</td>
<td>37.1</td>
</tr>
<tr>
<td>2002</td>
<td>38.5</td>
</tr>
<tr>
<td>2003</td>
<td>39.9</td>
</tr>
<tr>
<td>2004</td>
<td>41.3</td>
</tr>
<tr>
<td>2005</td>
<td>42.7</td>
</tr>
<tr>
<td>2006</td>
<td>44.3</td>
</tr>
</tbody>
</table>

Table 2. United States Hispanic population, 2000-2006

Table 3 shows that 12.1% of the total population five years or older speaks Spanish, and 66.5% of those Spanish-speakers speak English less than “very well” (U.S. Census Bureau 2006-2008 American Community Survey). Thus, the number of Spanish-speaking patients who speak little or no English is at an alarmingly high rate, producing a difficult language barrier between Hispanic patients and English-speaking physicians.
Table 3. Detailed languages spoken at home and ability to speak English for the population 5 years and over in the United States, 2006-2008 (Source: U.S. Census Bureau, 2006-2008 American Community Survey, Release date April 2010)

Figure 1 breaks down the population of non-English speakers by regions in the United States. There are 11.1 million people who speak Spanish in the western region of the United States, while 4.5 million people speak Spanish in the northeast (U.S. Census Bureau 2000). The amount of the population who encounter language barriers in their everyday lives is significant.

There are laws in place that require equal access to health care information in the primary language of the patient, yet many health care providers are not in compliance with the laws and there continue to be language barriers.

Most Limited English Proficient (LEP) people do not learn about available services like those described above, do not receive satisfactory levels of health care, and wait to seek medical attention when faced with serious health problems (U.S. Commission on Civil Rights, Office of Civil Rights Evaluation, July 2, 2004). The language barrier also causes misdiagnoses. Hospital patients who speak limited or no English find themselves at greater risk of problems when they are in medical offices if they do not have access to a qualified interpreter (Kaiser Family Foundation 2002).

The purpose of this research is to demonstrate that, in the increasingly linguistically diverse United States, there is a need to close the language barrier, specifically between Spanish-speaking patients and English-speaking
physicians. There is a high demand for professional interpreters, but nothing is being done to meet that demand. The present research will provide evidence that little or nothing is being done to overcome the language barriers at medical appointments, even though resources are available and there are laws to provide for such situations in the sample chosen.

In 2003, O’Leary, Burbano, Federico, and Hampers found that pediatric residents from the University of Colorado, Department of Pediatrics often did not use interpreters, despite their limited or nonexistent Spanish-speaking skills. Even though they had access to professional interpreters, residents would request the help of other residents who were supposedly proficient in Spanish or they would have patients’ family members interpret. Residents who rarely or never used interpreters reported that it was difficult to reach an interpreter, the waiting time was long, and that the interpreters did not know medical terminology well enough (O’Leary, Burbano, Federico, and Hampers 2003).

Regina E. Nailon, PhD, RN from the University of Pennsylvania, conducted research on four hospitals in selected counties within a northwestern state that either ranked among the top three in that state with the highest percentage of Latino population, or had a Latino population that was at least 25% of the total population (2006). A total of 15 registered nurses who participated in this study were interviewed or observed in order to gather information on the types of practices they followed for non-English-speaking patients. In many of the instances, registration personnel were used to interpret, but their interpreting ability was unknown. On only one occasion out of the 22 encounters observed, did a nurse use an interpreter with a patient who needed a Spanish interpreter. In this one case, there was limited access to interpreters and nurses were discouraged by supervising staff from requesting interpreters because of the costs involved (Nailon 2006). Nurses often did not use interpreters for the initial interview process and instead would request interpreters for physicians because they felt it was more important to have interpreters for physicians (Nailon 2006). Although nurses and physicians both play key roles in the care of patients, nurses chose not to use interpreters because of the limited resources. However, nurses need interpreters just as much as, if not more than, physicians, because nurses obtain the chief complaints of the patients, spend more time with patients, and aid physicians in caring for patients.

In their study of Spanish-speaking patients in a U.S. primary care setting, Elderkin-Thompson, Silver, and Waitzkin (2001) noted the need for professional interpreters at medical appointments for non-English-speaking patients. Their study was part of a research project on mental health issues in primary care (funded by the National Institute of Mental Health, or NIMH)
for non-English-speaking patients between ages 18 and 66, seeking first-time episodic care at a walk-in primary care clinic sponsored by a Southern California university. The researchers examined 21 encounters and found that roughly two-thirds of the uncomplicated cases had no problems in translation that could have jeopardized the diagnosis or treatment of the patient. However, they did find errors and omissions due to communication problems with one-third of the uncomplicated cases, and two-thirds of the complicated cases (Elderkin-Thompson, Silver, and Waitzkin 2001). Elderkin-Thompson et al. (2001) concluded that when the nurse was interpreting, she/he would not include vital information about how the patient was feeling because the nurse did not feel it was important or because if it were interpreted it would be nonsensical. Even though the nurse and the patient might share a language, their idioms might differ and the nurses might have felt it would be demeaning to the patients’ culture to interpret the nonsensical language of the patient. The nurses often felt patients were their subordinates and did not take what they were saying seriously; therefore, they would not include all of the information being said by the patient and relay it to the physician (Elderkin-Thompson et al. 2001).

The researchers also found that nurses often contradicted what the patient was saying because the nurse would become impatient, which led to a misunderstanding, and the physician would then refer the patient to a specialist (Elderkin-Thompson et al. 2001). In these cases, the root of the problem was noted in the medical chart erroneously. Also, nurses would often answer for the patient, instead of directing the question to the patient and giving an answer in the patient’s words because the nurse felt that she/he had the sufficient information necessary based on previous questions. Whenever the physician would misunderstand the interpretation and begin making her/his diagnosis, the nurse would not challenge the physician or rectify the misunderstanding, thus leading to another misdiagnosis (Elderkin-Thompson et al. 2001).

One of the findings of Elderkin-Thompson et al. (2001) was that educational level and idioms may interfere with the accuracy of interpretation because one word may mean one thing in Mexico, but have a completely different meaning in Ecuador (even though the primary language in both nations is Spanish). The study presented this type of problematic process in the following finding: one of the nurses was educated in South America and was interpreting for a rural Mexican woman. The nurse did not take the patient’s description of symptoms seriously, which diminished the patient’s credibility. The nurse did not pay close attention to the patient’s description and, at times, did not mention the patient’s comments to the physician. The patient’s cultural explanation of her symptoms was not mentioned because
she described abnormal movement of her blood and if interpreted literally, it would be nonsensical. The patient presented with problems of numbness and difficulty grasping objects. The nurse informed the physician of those things, but when the patient tried to elaborate on her symptoms, they were ignored by both the nurse and the physician because the patient kept stating that the blood felt like it was leaving her hands and that made no sense to them. Instead of trying to find the meaning to her statements and close the gap between her cultural idiom and the nurse’s, the only problems addressed were her hands numbness and difficulty grasping objects. The patient’s statements of falling because of her constant fatigue, weight gain, and loss of menstrual cycle were completely ignored and no attempts were made to address those issues. Thus, the physician diagnosed the patient with arthritis. After a follow-up visit, the nurse finally interpreted completely and the physician paid closer attention to the symptoms, and re-diagnosed the patient as having hypothyroidism, which is much more serious than arthritis and can have many damaging effects if left untreated. In this case, there was not only a language barrier between the physician and the patient, but there was also an idiom barrier between the patient and the nurse-interpreter that led to a complete misdiagnosis initially. Luckily, the patient returned for a follow-up and was diagnosed appropriately (Elderkin-Thompson et al. 2001).

Unfortunately, not all patients return for follow-up visits or they discontinue their services with the clinic because they are not satisfied with the level of care given at their initial appointments and they feel that their problems are not addressed because of the language and idiom barrier (Elderkin-Thompson et al. 2001).

The problem with having nurses interpret, as noted by Elderkin-Thompson et al. (2001), is that the nurses in this example interpreted from their native language into their second, weaker language, English. Also, the nurses waited for the physician or the patient to finish their statements or questions, which caused the exclusion of crucial information; by the time the nurse interpreted, she/he could have forgotten all of the information that was relayed. This problem does not occur with professional interpreters because they speak in the first person and they use “simultaneous interpreting,” which means they speak at appropriate time frames within statements or questions of the physician or patient, thus avoiding excluding any vital information; the simultaneous interpreting approach greatly diminishes errors and the probability of misdiagnoses (Elderkin-Thompson et al. 2001).

According to Elderkin-Thompson et al. (2001), a study by Woloshin et al. (1997) found that bilingual staff members made fewer interpretive errors after 70 hours of professional interpreter training than did untrained
bilingual staff. Meanwhile, Kaiser Permanente, one of the largest health care providers in the country, only offers bilingual staff members a maximum of 24 hours of professional interpreter training. Kaiser Permanente has two levels of Qualified Bilingual Status (QBS) for staff members; Level 1 consists of basic conversational skills and Level 2 consists of more complex conversational skills, including basic medical terminology. In order to become a Level 1 interpreter, the employee must pass a 25-30 minute telephone assessment in the qualifying language and then complete a one-hour training program (Kaiser North Valley LMP Web site 2010). Level 1 interpreting consists of conversational skills, such as giving directions, scheduling appointments, and taking non-complex patient complaints. Level 2 interpreters undergo a 30-35 minute telephone assessment on language proficiency in the qualifying language. The telephone assessment includes questions and phrases in English and in the qualifying language. After passing the telephone assessment, the employee participates in a three-day (24 hours total) training program. Although Kaiser contracts with an external professional interpreting company, a QBS staff member is used for instances when there is not sufficient time to schedule a professional interpreter and for emergency room patients. However, this amount of QBS training time may not be enough; staff members are not trained enough to interpret for complicated cases, and a professional interpreter is not always available. Kaiser Permanente does not have on-site professional interpreters at all times, nor do they provide continuous training for bilingual staff to avoid misinterpretations and reduce errors in communication. Instead, every Kaiser facility contracts with external interpreting companies that require advanced notice to have an interpreter available during appointments.

U.C. Davis, a leading health care provider in the state of California, participates in interpreting practices similar to those at Kaiser Permanente. A document found on the U.C. Davis Web site (http://www.ucdmc.ucdavis.edu/cme/resources/updated_summary_of_lep_legislation.pdf) denotes the California Dymally-Alatorre Bilingual Services Act (Govt. Code 7290 et seq.), which ensures that California residents appropriately receive services from public agencies regardless of the person’s English language skills. The act generally requires state and local public agencies to provide interpreter and written document translation services in a manner that will ensure that individuals with limited English skills have access to important government services. Agencies may employ bilingual staff and translate documents into additional languages representing the clientele served by the agency. The U.C. Davis Web site also provides guidelines from the federal Civil Rights Act of 1964, as amended, and Health and Human Services (HHS) regulations requiring recipients of federal financial assistance to take reasonable steps
to ensure that LEP persons have meaningful access to federally funded programs and services. LEP persons are supposed to be provided with interpreter services, either in person or by telephone, and have documents translated into their preferred language.

METHODOLOGY

The researcher used both quantitative and qualitative methodologies. The quantitative method was necessary to analyze statistics proving there are many Spanish-speakers in the United States who speak little to no English.

The qualitative method was also essential to analyze studies in which patients were part of investigations conducted to find if they were obtaining proper interpretations by medical staff, as opposed to receiving interpretations by professional medical interpreters. The studies showed that when the interpretation was handled and provided by medical staff without interpretation training, the amounts of mistakes were at alarmingly high rates. Meanwhile, mistakes were minimal when professional medical interpreters conducted the interpretations.

The researcher analyzed surveys and information found within Kaiser Permanente, one of the nation’s leading health care providers serving over 8 million members (https://members.kaiserpermanente.org/kpweb/aboutus.do). The researcher also analyzed information found within the University of California Davis Medical Center, which is an acute-care teaching hospital and serves 6 million residents across Northern and Central California (www.ucdmc.ucdavis.edu/medicalcenter/aboutus/about.html). The researcher further included observational information obtained as an employee in the medical field and from attending medical appointments with her Spanish-speaking mother.

FINDINGS

The United States continues to have an increasingly large part of the Hispanic population that speaks little to no English, yet the demands for professional interpreters are not being met in an effective manner that would contribute to ameliorating that situation. Forty-seven million persons speak a language other than English at home, and 2.6 million adults do not speak English at all (U.S. Census Bureau 2000). Congress passed Title VI of the Civil Rights Act of 1964 to eliminate language barriers (U.S. Commission on Civil Rights, Office of Civil Rights Evaluation, July 2, 2004). Former President William J. Clinton issued Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency in August 2000.
(U.S. Commission on Civil Rights, Office of Civil Rights Evaluation, July 2, 2004). This law requires federal agencies to meet language needs of all persons who seek access to their programs and services. Although medical services that do not provide interpretation are not federal, the executive order proves that providing interpretation is on the national radar and is a matter of importance.

In 200, California Senate Bill 853 was enacted to require insurers and health care service plans to assess the linguistic needs of their enrollee populations and to provide for interpretations and translation services (Kaiser Regional Diversity 2010). Although Kaiser has embraced this bill by acknowledging the members’ linguistic needs in their medical records, interpreters are not always scheduled for appointments and are not always available on demand, further increasing the language barrier between patient and physician.

According to a 2002 Kaiser Family Foundation survey, 4,161 uninsured individuals with limited English proficiency were treated between May and August 2000 at 23 hospitals in 16 cities. Of those surveyed, 27% left the hospital without understanding how to use their medications, while only 2% did understand because they had an interpreter present. One-third of those patients who were refused an interpreter stated they would not return to the facility.

These findings show that patients become discouraged and are often left in the dark when they are not provided with an interpreter, even though there are surveys proving that having an interpreter is important and there are federal laws stressing the importance of having interpreters for non-English-speaking persons. Patients not only become discouraged, they are also misunderstood, and tragic misdiagnoses can occur as a result. Naturally, the number of unattended patients with these needs will increase at a time of budget constraints in the health care business.

It is not surprising then that tragic cases of misdiagnoses have occurred because of language barriers. Flores (2006) in the New England Journal of Medicine, describes an 18-year-old Spanish speaker who staggered into his girlfriend’s house and collapsed after saying he was intoxicado. The non-Spanish-speaking paramedics thought this word meant “intoxicated.” In Spanish, intoxicado could also mean “nauseated,” “drunk,” or “poisoned.” Physicians treated the patient in the hospital for almost 6 hours for a drug overdose, yet after being reevaluated, he was identified as having intracerebellar hematoma with brain-stem compression and a subdural hematoma secondary to a ruptured artery, which left him quadriplegic (Flores 2006).

Another case also found in a 2006 New England Journal of Medicine reported that a Spanish-speaking mother took her child into the hospital because
she hit herself when she fell off her tricycle. The resident helping her misunderstood and believed that the child was a victim of abuse. He contacted the Department of Social Services (DSS) and the mother signed over guardianship of her children because an interpreter was not present. If an interpreter had been present from the initial time of the visit, then there probably would not have been the misunderstanding between the physician and the patient’s mother.

As the amount of non-English-speaking population continues to grow almost exponentially in the U.S., the demand for Spanish interpreters continues to further increase. A total of 26,632 Spanish-speaking patients of Kaiser Sacramento required an interpreter over a six-month period from December 2009 through May 2010. That equals 77.91% of Spanish-speakers compared to members that required interpreters in all other languages (Quality and Operations Support 2010). As shown in the data in Table 4, the amount of Spanish speakers who require an interpreter is fairly consistent, proving that the demand for interpreters is consistent as well, although basic and major linguistic differences among Spanish speakers are not addressed. This is a potential area of danger, where more misdiagnoses and errors are statistically inevitable because there are many Spanish-speaking patients who require an interpreter, but do not receive one. However, the data does not show when a member’s medical record states they do not require an interpreter, but when they arrive to their appointments they are actually in need of an interpreter.

<table>
<thead>
<tr>
<th>Month-Year</th>
<th>Preferred Spanish</th>
<th>Spanish-speaking members who required an interpreter</th>
<th>Total members who required an interpreter</th>
<th>% of Spanish interpreters to all languages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec-09</td>
<td>5,888</td>
<td>4,455</td>
<td>5,705</td>
<td>78.09</td>
</tr>
<tr>
<td>Jan-10</td>
<td>5,817</td>
<td>4,393</td>
<td>5,635</td>
<td>77.96</td>
</tr>
<tr>
<td>Feb-10</td>
<td>5,817</td>
<td>4,431</td>
<td>5,686</td>
<td>77.93</td>
</tr>
<tr>
<td>Mar-10</td>
<td>5,850</td>
<td>4,458</td>
<td>5,717</td>
<td>77.98</td>
</tr>
<tr>
<td>Apr-10</td>
<td>5,848</td>
<td>4,455</td>
<td>5,732</td>
<td>77.72</td>
</tr>
<tr>
<td>May-10</td>
<td>5,810</td>
<td>4,440</td>
<td>5,707</td>
<td>77.80</td>
</tr>
<tr>
<td>6-month total</td>
<td>35,030</td>
<td>26,632</td>
<td>34,182</td>
<td>77.91</td>
</tr>
</tbody>
</table>

Table 4. Spanish-speaking Kaiser Sacramento patients who require an interpreter (Source: Kaiser Permanente, Quality and Operation Support, Sacramento, CA 2010)

LIMITATIONS

The limitation of this research is that it is regional in its focus and it does not consider information about all health care providers from around the country and their interpretation protocols, so as to provide a comparative view. Yet, this limitation is tempered by there not being studies from other areas of the
country that factor in California’s cases and intricacies. California may not be the only state that mandates for health care agencies to have interpreter services; other states may have similar laws that are not enforced, but there are no nationwide efforts or studies to compare these very urgent needs holistically, which make anecdotal cases like this researcher’s very revealing.

FUTURE RESEARCH
The findings and limitations of this research have encouraged the researcher to further investigate laws for each state regarding interpreting protocols. The researcher would like to discover which major health care facilities around the country are following the laws and which are falling short. Also, the researcher would like to investigate the amount of misdiagnosed cases caused by the lack of interpretation and what can be done to prevent the amount of misdiagnosed cases that occur due to language barriers.

CONCLUSION
Despite current laws, there continues to be a lack of professional interpreters at health care appointments, which can lead to misdiagnoses. There should be strict enforcement of these language-based laws to prevent such cases from happening time and time again. Something must be done to push the government to strictly enforce these laws. There should also be continuous staff training (more than 70 hours) to further develop their interpreting ability so that they are able to interpret correctly when no professional interpreters are available. Health care facilities should provide on-site professional interpreters, instead of having external contracts. This strategy will ensure that every non-English-speaking patient will be provided with an interpreter, which will save time because there will no longer be a need to wait for an interpreter to become available. This strategy can also save agencies money because they will no longer have to contract with external interpreting companies. Perhaps if this were a current practice, my mother would not have been misdiagnosed and would have received proper care for her liver condition sooner, rather than later when her condition was worse. Physicians choose their profession to improve and save human lives, and non-English-speaking patients deserve the same quality of care as English-speaking patients.
REFERENCES


The Making of a Disney Princess

by Kiara M. Hill
Faculty Mentor: Dr. Foss-Snowden

ABSTRACT
Many girls grow up wanting to be the princess they see on their favorite Disney film. What we do not realize is that these princess films create a rhetorical vision that can be harmful to the way young girls of color perceive the concept of self-identity. Through fantasy theme analysis, the present researcher analyzed the traditional Disney princess film in attempt to view the complications caused by the element of race. Boreman’s theory of fantasy theme analysis enabled the researcher to thoroughly analyze all of the Disney princess films and contribute knowledge using a different perspective than previously applied when dealing with this subject.

As a child, I always knew that I wanted to be a princess. I wanted to travel to a different world, have a beautiful dress for every day of the week, and most of all, I wanted to meet my Prince Charming. I loved fairy tales, and Cinderella was my favorite story and my favorite character of them all because she was so beautiful and elegant. For Halloween one year I begged and pleaded with my mother to get me the Cinderella costume worn by the princess in the movie Cinderella (1950) that all the girls in my class would have, because just like them, I wanted to feel like a princess for the night. I had butterflies in my stomach that entire day anticipating that evening when I could finally be the princess I had seen on the movie. After getting dressed, I remember looking into the mirror and making a startling discovery. When comparing myself to the princess I saw in the film, I found few similarities and many differences. For one, Disney’s Cinderella was white with long blonde hair, and I was black with short, curly black hair; in that moment, I felt inferior because I knew I could never be like the “real” Cinderella.

I was not the only little girl comparing herself to the Disney characters. Hurley (2005) stated, “Through the ages, children have formed mental images of the princess and other characters depicted in these tales from their representation in the written text as well as in the illustrations that have often accompanied those texts.” Though I formed a mental image of Cinderella...
in which she could have been black with short, curly black hair, like me, the Disney reference changed forever my mental image of how a princess should look. In the movie, Cinderella was white, and all of the other Disney princesses were white as well; none of the princesses I saw in my favorite films looked like me. Slowly, the imagery solidified and the message became more concrete: princesses are white, and if you are not white, then you cannot be a real princess. These Disney representations of what a girl should look like and how she should act, if she wants to be a princess, stay with many girls (Hurley 2005). Girls use these visual and mediated illustrations of “princess-ness” to understand their place in the world. Disney’s earliest princess films, or the films that capitalized women as main characters even if she was not a member of a royal family, including *Snow White and the Seven Dwarfs* (1937), *Cinderella* (1950), and *Sleeping Beauty* (1959), were not original Disney storylines, but were actually based on European fairy tales. According to Bell (1995), Snow White was based on a story that Walt Disney took from the Grimm Brothers and changed to make it “peculiarly American.” The European origin of the stories, even after Disney’s edits, provides a possible explanation for the European appearance of those films’ main characters.

After 30 years of relatively sparse production since Sleeping Beauty, Disney crowned itself King of the Princess Film Mountain once again with *The Little Mermaid* (1989), *Beauty and the Beast* (1991), *Aladdin* (1992), *Pocahontas* (1995), *Mulan* (1998), and *The Princess and The Frog* (2009). The obvious difference between the “classic” princesses (Snow White, Cinderella, and Sleeping Beauty) and the “new” princesses (Ariel from *The Little Mermaid*, Belle from *Beauty and the Beast*, Jasmine from *Aladdin*, Pocahontas, Mulan, and Tiana from *The Princess and The Frog*) is that the new princesses were much more diverse in their appearance than their classic sisters. With the more diverse princesses, young girls of different ethnic backgrounds could finally identify with their favorite beloved Disney princesses because they could actually see the physical and cultural characteristics they shared, but the addition still did not erase some of the impressions already bestowed upon little girls of color by the traditional white Disney princesses. This study aims to explore the relationship between the inclusion of the element of race/ethnicity and the creation of the powerful message told by the Disney movie princesses as a whole to all the little girls who are paying very close attention.

**LITERATURE REVIEW**

Disney is one of the biggest powerhouses in the media world. As a company, they hold a controlling interest in 20 television stations, ownership of over 21 radio stations, three music studios, the popular and powerful ABC television
network, and five motion picture studios (Giroux 1999). It is safe to say that with this much control over the media, Disney is very influential to those who partake in the culture. As of April 3, 2010, Disney Media Network grossed 3.8 billion dollars, the Disney parks and resorts grossed 2.4 billion dollars, Disney Studio Entertainment grossed 1.5 billion dollars, Disney consumer products (including Disney-themed toys and merchandise) grossed 596 million dollars, and Disney interactive media grossed 155 million dollars (Disney Annual Report, Glendale CA: Walt Disney 2009). With all of the media outlets Disney has readily available, the relatively new Disney “princess package,” which refers to the way Disney markets the princesses, has no problem getting the marketing exposure it needs. The package consists of all the Disney princess movies, and though these films are very popular, there has also been a heightened concern for the negative portrayals of women and the emphasis being placed on gender roles.

**Gender and the Disney Princess**

Current research suggests that Walt Disney may have had a sexist view of women, as evidenced by some of his films. The roles he chose to represent women were attributed to the patriarchal beliefs of the 1940s and the roles he believed women should play in society (O’Brien 1996). The problem that is present, however, is that some of the beliefs that were prominent in the 1940s were outdated by the 1990s and in the new millennium when Disney’s classic movies were re-released. The Disney company encountered a lot of criticism about the messages its animated movies send, and one of the more important concerns referenced the portrayal of the female characters in these films (Kincheloe and Steinberg 1997). Ariel of *The Little Mermaid*, for example, is portrayed as a rebellious teenager whose only hope is to be able to see what life on land is like. She often disobeys her father, keeping the audience entertained with her adventures. Ariel exchanges her voice for a pair of legs so that she can pursue Prince Eric. The message sent to the young women watching this movie is that love and submission are most important in life than self, even if it means concealing or letting go of a gift or talent you may posses to obtain it. The same message was sent through the choices Ariel has to make in *The Little Mermaid* regarding love and her former life, Disney introduces the nature of female choice in a way that children are able to understand (Kincheloe and Steinberg 1997). Research also suggests that through the gender roles displayed by Disney films, men’s control and abuse of women is romanticized (Tanner et al. 200). Women do encounter these situations and decisions on a daily basis, but is it fair to expose girls to this notion at such a young, impressionable age? An older example was in the movie *Sleeping Beauty* (1959), in which princess Aurora’s only dream is to fall in love, and when she falls into a deep sleep, only a kiss from the handsome
prince can awaken her. As with Ariel in *The Little Mermaid*, the message being sent to the audience is that, for a woman, love is most important and without it she cannot be complete. Along with these potentially harmful messages being sent to young girls about gender, race is also a concern.

**Race and the Disney Princess**

For a long time, Disney films struggled to connect with their audience of color. Prior to *Aladdin* (1992), girls of color had a harder time identifying with the ideal princess marketed by Disney. Hurley (2005) states that some forms of children’s literature and other forms of print and electronic media (including films) play a role “in providing visual images to children that give them cultural information about themselves, others, and the relative status of group membership.” Thus, young viewers of color could gain cultural information about themselves and about their place in society by viewing these Disney films. Young female viewers of color could think that if Disney does not consider them important enough to represent on screen, then they must not be that important. Lack of representation attacks the self-worth of children, causing them to have a negative outlook on themselves and on people who look like them, and that is not fair (Hurley 2005).

Many scholars (Haddock 2004; Brode 2005; Hurley 2005) have studied the roles that race and gender play in Disney films, but there has not been much discussion on the effect of race on what Bormann (1972) calls the “rhetorical vision” created by stories and storytelling. The arrival of *The Princess and the Frog* in 2009 created an interest in the analysis and discussion about race, and the identification of young girls and the Disney princesses they see in films. Disney has created separate fantasy themes for its white princesses and its princesses of color, and the present research employs fantasy theme analysis to reveal the process by which these separate themes were constructed, and the implications that this separation has on media, race and ethnicity, gender, and society in general. Current research suggests that the portrayal of female characters in Disney movies influences children’s beliefs about gender roles and stereotypes, along with how women should conduct themselves in society. Research also suggests that when children are not able to identify with the images they see in books and on television, they will struggle with self-worth later on in life (Hurley 2005). What scholars have yet to do is approach the element of race from a fantasy theme analysis perspective, and the present research explores how the race factor complicates the traditional princess fantasy theme using this method.
METHODODOLOGY

According to Bormann (1972), a “fantasy theme” is a dramatic message in which the characters “enact an incident or series of incidents in a setting somewhere other than the here-and-now of the people involved in the communication episode. Fantasy themes are often narratives about living people or historic personages or about an envisioned future.” Bormann developed an analysis method for these fantasy themes as a way to examine how groups of people use stories or dramas to come to shared understandings about the way the world is and how it should be (Stoner and Perkins 2008). Fantasy theme analysis is appropriate for the study of Disney princess films because it allows for an audience-centered perspective. It also allows for the exploration of how Disney movies shape the way young people, especially young girls, view the world. According to Stoner and Perkins (2008), Bormann explained that,

*The process of fantasy theme analysis includes becoming familiar with the text, looking for patterns among the dramatic elements of the characters, reconstructing the rhetorical vision from the representative fantasy chains, and asking probing questions about the patterns of the fantasy themes that are discovered.*

Many scholars, including Towbin (2004) and Kincheloe (1997), have conducted feminist and racial analyses on Disney movies, but none have considered those topic areas through the lens of fantasy theme analysis.

FINDINGS

The traditional definition of a princess would probably include the mention of a daughter of a king, but Disney’s definition is a little different. Disney’s princess films are the films with plots with a heavy focus on female characters instead of, or in addition to, male main characters. Disney markets these movies as the “princess package.” So, in these films, even if the females are not the main characters (as is the case with Princess Jasmine in *Aladdin*), they are still known in the Disney world as princesses. The Disney films featuring male main characters, even those featuring a male who could possibly be considered a prince (such as *The Sword in the Stone* in 1963, *The Jungle Book* in 1967, *The Lion King* in 1994, *Hercules* in 1997, or *The Emperor’s New Groove* in 2000) are not grouped together and marketed as a “prince package,” nor are these films referred to as Disney prince movies. The linking of Disney films featuring female main characters is significant and unique.

Many of the earlier versions of Disney princess films were based on literary fairy tales and, eventually, these versions became what most people know as
the only version of the story (Bell 1995). Through _Snow White and the Seven Dwarfs_ (1937), _Cinderella_ (1950), and _Sleeping Beauty_ (1959), Disney created the iconic image of a princess in a fairy tale and the company achieved much success in doing so.

In _Snow White and the Seven Dwarfs, Cinderella_, and _Sleeping Beauty_, the princesses encountered adversity brought upon them by evil older female counterparts, and it was up to a prince to rescue them, thus producing the traditional princess theme that suggests a girl can be a main character as long as there is a man present to save her. Some years later, Disney added more princesses to the line-up with _The Little Mermaid_ (1989) and _Beauty and the Beast_ (1991), giving the audience a more updated storyline than those in the earlier films. _The Little Mermaid_ (1989) took place in an underwater kingdom, which was a unique princess environment. In the years following the release of _Beauty and the Beast_ (1991), the films _Aladdin_ (1992), _Pocahontas_ (1995), and _Mulan_ (1998) entered the princess circuit. These three films were the first to depict ethnic Disney princesses, and with these films the more traditional princess theme started to slowly fade. No longer were these princesses victims of their circumstances; they were now at the forefront of change in their given stories. _Pocahontas_ ended a war and saved the life of her love interest. In _Aladdin_ (1992), Jasmine was instrumental in the defeat of the movie’s villain, and _Mulan_ took on the responsibility of helping to defend China and protect her father’s legacy. In the most recent Disney princess film, _The Princess and the Frog_ (2009), the main character, Tiana, does not become a princess until the end of the film. Prior to the ending, she was portrayed as a hard worker whose only desire was to own a restaurant; after turning into a frog during the movie, she was also responsible for the demise of the villain in her story. The modern Disney princesses are active and heroic and, interestingly, are also increasingly diverse in their appearance. The last four Disney princesses representing racial/ethnic minority groups.

**Shared Characteristics**

When examining the princesses as a whole (classic and modern, white and ethnic), they all have certain shared characteristics. Each princess is portrayed as young, energetic, attractive, and relatable. Each princess also gives off a certain amount of sex appeal that attracts her given love interest, and she is often admired or envied by her female counterparts. In _Cinderella_ (1950), Cinderella’s stepmother and stepsisters were jealous of her beauty, while _Pocahontas_ was admired for her beauty and the opportunities she was afforded because her father was the head chief of their village. Disney wants these princesses to be young and pretty for a reason. In U.S. society, beauty is highly valued, and the audience targeted by these movies is full of young
girls who also want to be beautiful. The more relatable the characters are, the more the audience will become attracted (if not addicted) to these films, giving Disney their loyalty and ensuring a lucrative future for the company. In *The Princess and The Frog* (2009), when Tiana was denied her restaurant because she did not have enough money, the audience understands and sympathizes with her disappointment. In some instances, the audience even shares the same envisioned future as the characters. Pocahontas wanted to be able to interact with the colonists peacefully and to enjoy the love of her life openly. The general nature of that story ensures that the audience can share emotions with the princess.

Another Disney princess similarity is the struggle against a villain. For some of the princesses, the villain is a family member who is cruel to the princess; for others, the villain is someone who is a threat to everyone in the movie. Aurora, in *Sleeping Beauty* (1959), had to struggle with the wicked fairy Maleficent, who placed a spell only on Aurora, but Mulan had to deal with the evil Shan Yu, who was a threat to the entire country.

**Differences in Princess Representations**
The Disney princesses share these similarities and more, but there are obvious differences between them as well. When contrasting the white Disney princess movies and the ethnic Disney princess movies, the white Disney princesses are always praised for their gifts and especially for their beauty. In *The Little Mermaid* (1989), *Sleeping Beauty* (1959), *Snow White and the Seven Dwarfs* (1937), and *Beauty and the Beast* (1991), each princess is blessed with the gift of song. Although most Disney princesses sing at least one song, the white Disney princesses are the only ones who are praised for their voices by the rest of the characters in the movie. For example, Ariel of *The Little Mermaid* (1989) was known throughout her father’s kingdom for her magical singing voice, and it was envied by the movie’s villain, Ursula. Conversely, the ethnic Disney princesses receive praise for being hardworking, dedicated, and courageous, attributes that are frowned upon by the rest of the characters in their narratives. In *The Princess and The Frog* (2009), Tiana works a number of jobs to try to buy her restaurant, but the people around her think she works too hard and they deride her for trying to take on all of that responsibility. *Mulan* (1998) takes place in the middle of a war; because her father is disabled, Mulan signs up to fight in her father’s place by posing as a man. When the army finds out Mulan is a woman, they ostracize her, and instead of recognizing her honorable heroic deed, they send her home. Fantasy theme analysis allows for the identification of the patterns in the dramatic elements of these stories (including characterization and storyline), and
reveals distinct differences and overt similarities between the fantasy theme of the traditional and ethnic Disney princesses.

Perhaps the most significant difference in fantasy theme exists in the dramatic element of setting. When observing the settings of the Disney princess films, there is a big contrast between the white and ethnic princesses. In the white Disney princess films, the setting always takes place in an unknown forest, town, or unrecognizable location, while the ethnic Disney princess films almost always take place in an easily identifiable location. *Mulan* is set in China, *Pocahontas* is based on a true story and a real place in North America, and *The Princess and The Frog* takes place in New Orleans, but *Snow White and the Seven Dwarfs* is set in an unknown forest, and *Beauty and the Beast* takes place in an unrecognizable town. The recognizable cultural aspect personalizes the ethnic characters, while simultaneously facilitating the creation of negative stereotypes about them.

Stereotyping the white Disney princesses based on their environments becomes difficult if not impossible, because the settings are unrecognizable and the audience cannot associate any characteristics with them. By contrast, it is very easy to associate characteristics with the ethnic Disney princesses just based on the setting. In *Aladdin*, the setting is vaguely Middle Eastern, complete with people wearing turbans, riding camels, and having thick beards and dark skin. The release date for Aladdin pre-dates September 11, 2001, and the War on Terror, but since Disney films become more valuable with age thanks to the Disney “vault” (a term used to describe the discontinuation and re-release of Disney movies), additional meanings can be attached to current viewings of the film. Surely, negative stereotypes about the Middle East existed before the release of *Aladdin* (1992), and some of those stereotypes were evident in the film through the images of the characters and their behaviors (Lent 1999; Tehranian 2009; Hasan 2002). Another example is in *The Princess and The Frog* (2009), which is situated in New Orleans, where almost all the characters there have thick southern accents, dance in the streets, practice voodoo, and use broken English. The racism that is present through these films exists because there are no complex (i.e., non-stereotypical) African American characters present to counteract those stereotypes (Pinsky 2004). The stereotypes in each of the ethnic Disney princess movies are ones that already surround each of the groups of people represented by the characters, and by only applying recognizable settings to ethnic films, Disney brings more attention to those stereotypes.

**Fantasy Themes at Work**

Fantasy themes work to attract the unconverted audience to the traditional Disney princess films by allowing the audience to sympathize with the
story of the princess. Since most people have had to overcome adversity at one point in their lives, when the characters go through their trials and tribulations, the audience relates to and feels the emotions that Disney wants to invoke.

The animated delivery of these films is also important to the creation of the fantasy theme because the target audience is comprised of children. Children pay attention to entertainment and, in this case, through the cartoons and musical selections within the movies, Disney can fully capture a child’s attention. Often, music can serve as a reminder or mechanism that allows the audience member to retrieve messages or personal memories (Walker and Herrmann 2005). So, by including musical numbers in each princess film, Disney ensures that its impressionable and eager young audience members will remember the messages in a powerful and lasting way. Along with music, major transitions such as commercials, applause, sound effects, and animation tend to evoke children’s attention (Berger et al. 2009). Through this type of delivery, Disney can be reassured that kids will grasp and recall whatever message Disney sends, and as mentioned previously, animated delivery and a musical-genre focus are similarities across the Disney princess films.

DISCUSSION

The rhetorical vision (shared vision of the audience) that traditional or classic Disney princess movies impose on young girls is that all princesses are beautiful, young, white women who live in exotic and unrecognizable lands. This placement contributes to the dreamy effect this rhetorical vision creates. When parts of the story are less real, they create a state of fantasy bliss. Stated simply, life in the unrecognizable “Far Far Away” must be better than the reality of life in New Orleans, China, the Middle East, or any other recognizable location. Far Far Away also has the benefits of no history, no secrets, and no shameful past. The Princess and the Frog, while not set in post-Katrina New Orleans, still speaks to an audience that remembers the devastation that a hurricane can cause. The separation between the traditionally white princess fantasy theme and the ethnic princess fantasy theme in the pattern of settings only solidifies the rhetorical vision (how the world is and how it should be).

The circumstances faced by the princesses represent another area of difference between the traditional and ethnic Disney princess fantasy themes. The traditional princess is almost always held captive by her circumstances, but in the end, a handsome white prince is always there to rescue her and they live happily ever after. In the ethnic Disney princess fantasy theme, the princess has a goal to reach or a circumstance to overcome and after much
hard work, she eventually proves to be victorious in her efforts and then she gets her version of Prince Charming. This is the dream Disney feeds young girls if they aspire to be a princess and, after years and years of consuming offerings from the Disney empire, what young girl would not aspire to be a princess? Disney princess films shape how girls view themselves and the world around them. Ward (2002) states that the center of Disney’s power begins with children who cannot resist Disney products. These children learn life lessons and build “dreamscapes” out of the raw Disney material (Ward 2002). In short, “Children grow into adults, who are fond of Disney because it shaped the way they think about the world” (Ward 2002). Thus, little girls who watch Disney princess films can grow up to be women who experience life and understand the world based on a rhetorical vision created by Disney.

Though the rhetorical vision regarding the Disney princess may be the same for all who share it, the people sharing this vision are not the same. There is a difference between the way a white girl may understand this rhetorical vision of the princess, and the way a girl of color interprets the same rhetorical vision. If a young white girl wants to be a princess based off the rhetorical vision, or at least imagines herself being one, there are not many limitations stopping her. Disney allows children to enter another world through their imagination fueled by the fantasy given to them by Disney (Giroux 2001). The young white audience member possesses all the variables she needs in order to identify with the princess in the story, and those she does not have she can imagine herself having. A young girl of color is different because she does not have all the variables she needs to identify with the traditional Disney princess theme. A white girl can imagine that she will someday be able to sing like Ariel, but a girl of color cannot as easily imagine that she will someday be white like Cinderella. When Tarpley (1995) asked a group of young African American girls to discuss the nature of being a princess, the girls readily acknowledged the race factor; in fact, “they stated the white Disney princess was the authentic one, and wanted to identify with her.”

Girls of color can use their imagination to try to apply the rhetorical vision to themselves, but, because they cannot change their skin color, they find themselves identifying with a rhetorical vision that excludes them by design. The effects on these children from not being able to identify with parts of this rhetorical vision can be very detrimental to their future. In order for children to develop a strong sense of self-worth, they have to see themselves or their images in text (Hurley 2005). Since the Disney princess rhetorical vision contains the notion that princesses are white, the positive self-image of children (especially girls) of color is at stake. Even though ethnic Disney princesses, like Tiana from *The Princess and The Frog* (2009), represent a chance
for children of color to see their skin colors represented in animated film, Olfman (2009) suggests that we must still consider,

...what values a black princess will teach our children. Will she reinforce white standards of beauty? To what extent will she contribute to what is already an intense over-commercialization of our children’s lives? Any benefits will probably be outweighed by the cost.

Thus, even if the racial/ethnic part of a girl’s self-image is boosted by the presence of ethnic Disney princesses, the girl’s entire self-image might still be at risk, due to the other flaws present in the Disney princess fantasy theme.

This study offers evidence on how race complicates the fantasy theme of the traditional Disney princess film. The rhetorical vision created by traditional Disney films affects the growth and self-image of young children of color. Despite Disney’s addition of ethnic princesses, there are still damaging messages in the films that affirm the negative stereotypes surrounding different ethnic groups.

CONCLUSION

Future research could explore areas of interest raised in the present study, including the African American community’s reactions to and opinions about the most recent Disney princess film, The Princess and The Frog (2009). Many critical approaches, such as the fantasy theme analysis used in the present study, examine texts and phenomena without the benefit of feedback from an audience. The present study suggests that even ethnic Disney princess fantasy themes do not alter the existence of a traditional princess rhetorical vision. Perhaps audience survey, in-depth interviews, or focus groups would reveal information that contradicts the present results.

However, a change in approach does not mean that the method used in the present study failed to produce important findings. In fact, the method could easily be applied to other areas where race/ethnicity, gender, and audience intersect, including reality-based television programs such as MTV’s The Hills, or VH1’s Dad Camp.

This intersection between race/ethnicity, gender, and audience is significant, important, and ripe for additional study. The present study examined this intersection, and included the fascinating variables of youth, animation, and the Disney princess. Fantasy theme analysis revealed that Disney could make its future film princesses ethnic and it would not matter because the rhetorical vision of a traditional (white) princess has already been formed and ingrained into the audience. Little girls still have access to Snow White and Sleeping Beauty even when Disney puts them in the vault to eventually re-release them.
Retail locations continue to sell the Disney princess merchandise, allowing the rhetorical vision to reach generation after generation of consumers. The present research argues that the rhetorical vision described here has power and permanence, but future research could (and hopefully will) suggest a way to alter or amend this rhetorical vision, or to create a new rhetorical vision that young girls (both white and ethnic) find even more compelling.
REFERENCES


The Effect of Stimulating and Soothing Smells on Heart Rate and Memory

by Rachanee N. Jackson
Faculty Mentor: Dr. Kimberly Roberts

ABSTRACT

This study was performed to investigate the effect of smell on heart rate and short-term memory. Lemon and lavender were used as stimulating and soothing scents respectively, in order to determine if these odors increased or decreased heart rate and correspondingly improved or impaired memory. Sixty-seven participants from California State University, Sacramento were divided into three groups to test the hypothesis that the stimulating scent of lemon would enhance memory and increase heart rate, whereas lavender would reduce memory and decrease heart rate. However, the results from this study were not statistically significant to support this claim.

Our olfactory sense is unlike any other sensory modality. It is the only sense that is directly connected to the environment, has neurons that continuously regenerate throughout life, and has neuron axons that are unmyelinated. Having “unmyelinated axons” means that neurons’ axons are not surrounded by protective cells called “glial cells.” Glial cells make up myelin, which is a protective layer of cells around the cell axon that allows for fast transmission of information from one neuron to the next. Not being myelinated causes the sensory signal from the environment to the olfactory bulbs (the structure that perceives smells) to move slower, which is why there is a delay in our responses to smell, and why smells linger in our noses after the scent in the air has passed.

The olfactory system contains structures that are also components of the limbic system, the center that is in charge of emotion and sensory processing. Among these structures is the amygdala, which is involved with emotional processing, specifically fear; and the hypothalamus, which maintains homeostasis within the body; and the hippocampus, which is involved in forming new long-term memories. The olfactory system’s close location to the limbic system explains why certain smells bring back such strong, vivid, emotional memories. The first time we come in contact with a special smell
like the smell of one’s grandparent or the smell of art paste, it gets stored in our memories so the next time we smell that scent we are taken back to a loved one’s hugs or to preschool art class. The proximity of these two systems would also explain why certain odors can cause relaxation, increased or decreased heart rate, and many other physiological responses in the body.

Scholars have studied how heart rate affects cognition and memory (Jennings and Hall 1980; Luft et al. 2009; Hansen et al. 2007) and how olfaction can alter physiological responses (Xu et al. 2008; Duan et al. 2007; Herz 2009), but no research exists on the relationship between heart rate and memory as the result of a stimulating odor.

The most relevant literature to the present research is in aromatherapy studies. Aromatherapy is a therapeutic method in which aromatic essential oils are extracted from plants and commonly inhaled to enhance different responses. There exists no concrete evidence that either confirms or denies the therapeutic benefits of aromatherapy so there are skeptics to the idea. However, there is extensive research (Xu et al. 2008; Duan et al. 2007; Herz 2009) suggesting that certain essential oils can and do create physiological, emotional, and psychological responses. Sandalwood for example, produces a sedating, relaxing feeling, which tends to be useful for treating people with anxiety, depression and insomnia, while lavender is an uplifting scent that is soothing and helpful in minimizing stress, anxiety, negative emotions, and insomnia (Herz 2009). Rosemary has been known to clear the mind and stimulate memory, while clary sage is an uplifting odor that relaxes patients and helps with anxiety, depression, fatigue, and irritability (Herz 2009). Lemon has been found to improve memory but it does not have any other physical effects on patients (Harvard Women’s Health Watch 2008). There have been studies that have investigated the effect of aromatherapy on depression (Yim et al. 2009; van der Watt and Laugharne 2008), irritability, dementia (Ballard 2007), and emotional diseases (Butje, Repede, and Shattell 2008), but no research connects stimulating scents with a direct influence on memory.

Although there have been studies on the effects of different odors on heart rate and on the effects of heart rate on memory and cognition, no research has been conducted on whether odors that increase heart rate also increase memory. The present study will use subjects from California State University, Sacramento to examine whether the stimulating smell of lemon and the relaxing smell of lavender, when presented to subjects, will cause their heart rates to increase or decrease and if there is a relationship between how well participants are able to recall information.
LITERATURE REVIEW

“Aromatherapy” is the use of essential oils that are extracted from plants through distillation in order to treat physical and psychological health issues. It is a branch of “phytotherapy,” which is the use of part of or an entire plant for medical purposes (Stelflitsch and Stelflitsch 2008). Essential oils have been utilized for therapeutic and medicinal purposes for centuries. Today, these oils are commonly used in massage oils, in baths, and are inhaled through steam or a diffuser to calm people, relieve irritability, aid in treating insomnia, and help with pain. There are many other uses for aromatherapy that are not as common, but when used by a specialist, a person who has been certified in the use of aromatherapy, it can be used to help treat inflammation, deodorize, increase blood flow to certain tissues in the body, or for many other beneficial purposes (Stelflitsch and Stelflitsch 2008). There are hundreds of essential oils that provoke different responses in people. Some of the odorants that have been prescribed to cause certain healing reactions include: sweet marjoram (to calm, sedate, and relieve an assortment of negative emotions like irritability, loneliness, and anxiety); sandalwood (also used to sedate, relax, and aid in treating depression, anxiety, and insomnia); and clary sage (to uplift, help relieve anxiety and depression, aid in fatigue, and calm irritable children). Two of the most popular scents studied in aromatherapy are rosemary, which stimulates memory and clears the mind, and lavender, which is uplifting, calming, and useful for reducing stress, anxiety, depression, and insomnia (Price 1991; as cited in Herz 2009). There is not enough evidence to scientifically prove the medical benefits of essential oils, but many studies have shown the effects that essential oils can have on people (Glaser and Graham 2008; Duan et al. 2007; Moss et al. 2003). Despite the studies done, the skeptics remain.

Some disbelievers of aromatherapy give the argument that the expectancy effect is the reason for the changes that researchers find in participants (Howard and Hughes 2008). In their study, Howard and Hughes (2008) suggest that studies that examined the consequence of lavender on participants are flawed. They suggest that researchers tell participants what changes the aromas should cause, or subjects are primed in some way to the purpose of the study. The researchers further argued that these actions influence such expected responses by the subjects. When people are aware that a certain smell is supposed to induce or reduce relaxation, they will become more or less relaxed depending on the expectation, and they will report as such. Howard and Hughes (2008) also suggest that many studies do not provide a placebo or blind experimental protocols to determine if a placebo effect exists or if experimenter expectancy causes the anticipated change. These researchers utilized a placebo in their study and manipulated
the expectations of the subjects (2008). They found that the participants who were primed to believe that the odor would make them more relaxed were more relaxed, and those who were told that the oil’s scent would inhibit them from relaxing were least relaxed of all the conditions. The groups that were not primed measured in the middle of the two manipulated groups despite whether they were in the lavender or placebo conditions (Howard and Hughes 2008). Although expectations can produce fallacies in research, the Howard and Hughes’ study is not comprehensive enough to disprove all lavender studies. In order to have a well-constructed experiment with valid data, one must control for such error as expectations. Controlling for fallacies is the foundation of valid research and many researchers control for these errors (Moss et al. 2002; Xu et al. 2008; Glaser et al. 2007). In addition, the olfactory system in humans is very complex.

Olfactory System
The olfactory system is the only sensory system that reaches directly to the cerebral cortex without first going through the thalamus (a structure that sends signals to different sensory locations and manages consciousness and alertness). When smells enter the nose, they activate olfactory receptor cells called cilia that take the signal from the nose to the olfactory bulb where the odor gets perceived. In the olfactory bulb, mitral cells pick up the odor signal and transport it down the olfactory tract where the signal is distributed to different parts of the limbic system (Chuldur 2010). The limbic system is most commonly known for maintaining balance within the body through the use of hormones and the processing of emotions, but is also used in handling higher order sensory processes and in the formation of memories (Boeree 2009; Hesselink n.d.; Barker et al. 2003, 103-4). There are primary and secondary olfactory regions that include brain structures that are also components of the limbic system (including, but not limited to, the hippocampus, the amygdala, and the hypothalamus) (Duan et al. 2007). The hippocampus is responsible for converting short-term memory into long-term memory, while the amygdala is essential in emotional processing and associating significance to sensory input (Hesselink n.d.), especially fear. Damage to the amygdala results in the flattening of emotion and no response to fear. It has been found that without the amygdala, people have difficulty discriminating between smells and matching a smell to the smell’s name (Buchanan et al. 2003). The hypothalamus is one of the most active parts of the limbic system, and of the brain entirely. It is responsible for maintaining homeostasis within the body by receiving signals from all over the brain telling it about the body’s blood pressure; how full the stomach is; skin temperature; information on the lightness and darkness of the environment;
and whether the body should be motivated to eat, drink, have sex, etc. The hypothalamus also provides information about ion balance and temperature of the blood and receives input from olfactory nerves along with numerous other functions (Boeree 2009; Barker et al. 2003, 98-9). In the process of sustaining hormones within the body, the hypothalamus controls the endocrine system by way of the pituitary gland (or master gland), which sends signals to other glands and tells them what, when, and how much to release. When certain fragrances enter the brain, they can trigger the hypothalamus, which then would activate the pituitary gland to release hormones that can induce autonomic changes compatible with relaxation and excitation (Duan et al. 2007). This interconnection of the olfactory system, the limbic system, and the endocrine system allows for support of the idea that if a smell is stimulating, then it might increase heart rate and improve memory.

The autonomic nervous system is a part of the peripheral nervous system, which connects the brain and spinal cord, also known as the central nervous system, to the limbs and organs. The autonomic nervous system is responsible for keeping the body in balance. It regulates heart rate, digestion, respiration rate, salivation, diameter of the pupils, urination, and sexual arousal. Duan and colleagues (2007) found—in their study about how odors affect the autonomic system—that lavender caused autonomic responses associated with relaxation. “Autonomic responses” refer to the automatic changes that occur within the body without conscious thought such as heart rate, blood pressure, etc. Some automatic changes that occur include slowing or increasing heart rate, increasing or decreasing blood pressure, and slowing or increasing breathing, but this study only looked at heart rate variability (HRV), how the heart varies from beat to beat, and blood pressure. Their results showed that after being exposed to lavender, there were no significant changes to blood pressure but HRV did appear to slow down in comparison with the control group (Glaser and Graham 2007).

Glaser and Graham (2007) examined the hormone levels, heart rate, and blood pressure in subjects who had been exposed to a physical stressor and then a stimulating odor (lemon) or a relaxing odor (lavender). They also examined how expectations influenced the results and found that those who were primed on what to anticipate from the different scents had higher heart rate increases after being exposed to the cold water stressor, and showed greater heart rate decrease during recovery than subjects who were blind to the conditions they were exposed to. Specifically, those in the unprimed conditions showed a more steady increase in heart rate after the stressor and a steady decrease in heart rate during the recovery. Diastolic blood pressure decreased from the “post-tape stripping” to “post-cold pressors” in participants who smelled lavender, while it increased in participants who
smelled lemon or water. “Post-tape stripping” was a painful stressor Glaser and Graham et al. (2007) used where they attached a piece of scotch tape to the participant’s forearm and then pulled it off; this was done to test skin recovery following exposure to an odor and to test the effect of smell on autonomic responses. The “post-cold pressor” is another stressful stimulus that Glaser and Graham et al. (2007) used. This was done by placing one of each subject’s feet, up to the ankle, in warm water for a minute and then immediately placing the same foot into cold water after the minute. For the systolic blood pressure, there were no significant changes in results.

Norepinephrine was the hormone of interest in this research. It was found that after the cold stressor, norepinephrine levels decreased less when subjects smelled lemon compared to water and lavender, and norepinephrine levels remained higher than normal when participants smelled lemon but returned to pre-stressor levels when lavender and water were used.

“Norepinephrine” is a stress hormone that affects areas of the brain associated with attention and responding actions. In correspondence with epinephrine, another stress hormone, norepinephrine is a key component of the fight-or-flight response, directly increasing heart rate, activating the release of glucose for energy storage, and increasing blood flow to muscles (Glaser and Graham et al. 2007). In summary, all the studies examined discussed the different consequences of different essential oils on physiological responses on the body. There were also studies reviewed that explored the effects of odors on cognition, but there is no research that shows a connection between physiological changes and cognitive tasks or, more specifically, the connection between heart rate and short-term memory. The present study will hopefully bridge this gap and add to our understanding of how scents can induce physiological changes and enhance our memory.

METHODOLOGY

The researcher conducted a quantitative analysis on the connection between three levels of independent variables including: the stimulating scent of lemon, the soothing scent of lavender, and a control group. The dependent variables were heart rate and short-term memory.

All subjects in this experiment were administered the same two sets of memory tasks under different testing conditions. The testing conditions were distinguished by the smell in the room, while the subjects’ heart rate was being monitored using heart rate monitors. The letter memory task contained four trials in which subjects were asked to recall a group of four-, six-, eight-, and ten-letter sets, respectively; the second memory task was comprised of two trials of 20 random pictures. The heart rates of the participants were
gathered continuously throughout the experiment to determine if the scent the subjects were exposed to affected short-term memory as well as heart-rate levels.

Subjects
There were 67 participants in this study recruited from California State University, Sacramento by means of convenience sampling, but three had to be thrown out due to not following the instructions of the test or missing paperwork. Most participants were students from the Psychology Department; however, there were a few exceptions. One student was from Cosumnes River Community College, a handful of students were not psychology students, and one participant was not a student. There were 21 males and 46 females ranging in age from 18 to 56, with a mean age of 26 years and a standard deviation of 7.56.

Heart-Rate Assessment
A heart-rate monitor by Polar was used to track heart rate. The heart monitor consisted of a band that was wrapped around the participant’s torso, under his/her clothes with the monitor in the middle of his/her chest, and under the breast bone, so that it could make direct skin contact and a clear heartbeat reading; a watch that corresponded with the monitor was worn on the participant’s non-dominant hand so that heart rate could be monitored. After five minutes of sitting in the main room, and before entering the test room, a baseline heart rate was gathered. Another reading was taken five minutes after the participant entered the testing room but before any memory tasks took place to determine if a change occurred as a result of the room. There were subsequent heart-rate readings after each memory test and a final one at the end of the five minute rest period at the end of the experiment.

Memory Assessment
The memory tests consisted of letter and picture recall tests administered electronically through Microsoft PowerPoint 2007 using a Dell computer. The letter-recall test contained four rounds. It began with the subjects being asked to remember the four letters presented to them. After, this first round, each subsequent trial increased by two letters until the fourth trial when the maximum of ten letters was shown and asked to be recalled. At the beginning of each phase, a slide was shown telling the subjects to remember the upcoming letters, followed by a brief focal point and then the letters. The study items were presented for ten seconds proceeded by a 10-second task requiring the subjects to count backwards by twos from 20 to prevent them from repeating the letters over and over in their head, a practice known as maintenance rehearsal. Last, participants were given 20 seconds to write down all the letters they were able to remember.
The picture-memory test had two trials of 20 pictures presented on a slide for 30 seconds. Immediately after the 30-second study phase, participants had 45 seconds to write down all the pictures that they were able to remember. At the end of first trial, there was a prompt informing subjects that the next trial was about to begin, and they had another 30 seconds to try to remember 20 new pictures, followed by another 45 seconds to recall them.

Procedure
The testing stations used in this experiment were in room 209 in Amador Hall at California State University, Sacramento. Inside the room, there were seven separate computers rooms that each were about 50 square feet in size. Each room contained a Dell (Optiplex 960) computer with a keyboard, a desk, and a chair. Memory tests were administered through Microsoft PowerPoint software (2007). Before participants arrived for testing, the researcher used a diffusing stick to fill the testing area with either the smell of Aura Cacia 100% pure lavender or lemon essential oils, except for the control group room, which had no alterations. The door was then closed until the subjects arrived and were assigned to their rooms for testing. Prior to being fitted with a heart-rate monitor, subjects signed a consent form to participate in the study.

Participants were then attached to the Polar heart-rate monitors to track their heart rates throughout the duration of the study. After five minutes of being attached to the monitor, and before entering the study rooms, a baseline heart rate was gathered; upon entering the scented room, subjects sat for another 5 minutes to see if their heart rate was altered by the smell of the room. While they waited for further instructions, the subjects were allowed to read a psychology magazine that was in the room, or to sit and do nothing while they waited for the study to begin. After the five minutes of waiting in the study room had elapsed, participants began the tests. Heart rate was recorded after each memory task, and again five minutes after the conclusion of the final task. Data was then analyzed using SPSS-18 software on Dell computers.

To avoid the “practice effect” (the tendency to get better at a task after doing it over and over), half of each group started with the letter test while the other half started with the picture test. Following the conclusion of the research, subjects were asked if they had any questions and were given a debriefing form. They were all thanked for their participation by the researcher.
RESULTS
A one-way ANOVA was used to analyze the effect of scent on memory and heart rate. The recall for letters in each group was as follows: Control \( (M = 22.27, SD = 5.55) \), Lemon \( (M = 22.14, SD = 6.29) \) and Lavender \( (M = 23.25, SD = 2.31) \). However, there was not an overall main effect of scent on memory for letters: \( F(2, 61) = .49, p > 0.05 \). Recall for pictures was similar. The results for this memory test were as follows: Control group \( (M = 18.00, SD = 3.01) \), Lemon group \( (M = 18.95, SD = 4.44) \) and Lavender group \( (M = 19.48, SD = 4.23) \). However, again, there was no main effect of scent on recall \( F(2, 61) = .78, p > 0.05 \). Heart rate also did not differ between conditions. The statistics were as follows: Control group \( (M = 79.77, SD = 14.63) \), Lemon group \( (M = 82.62, SD = 13.57) \) and Lavender group \( (M = 76.86, SD = 11.33) \) under pre-test conditions and during the testing procedure \( p > 0.05 \) (see Figure 1). There was a slight decrease in heart rate in the Lavender group compared with the Control and Lemon groups, and a slight increase in heart rate in the Lemon group compared with the Control and Lavender groups, but these observations were not statistically significant.

![Figure 1. Comparison of (mean) heart rate, recall of pictures, and recall of letters for each condition](image)

DISCUSSION
The results indicate there was no effect of essential oils on memory or heart rate. However, due to the complexity of the olfactory system, it is not surprising that subjects’ short-term memory was not significantly altered by these scents, especially because of the fast adaptation that our olfactory...
system goes through. Our olfactory system has a special chemical system that neutralizes the response of the olfactory receptors to odors. Due to these chemical adaptations, smells can seem to become 80% less powerful after only a few minutes of exposure (Dewey 2007). Perhaps long-term exposure for at least an hour may have resulted in a significant difference between the groups exposed to lavender and lemon. In addition, previous research indicates that priming the subjects’ expectations of how a scent may affect them has a stronger influence on heart rate and arousal levels than the scent itself (Glaser and Graham 2007). Subjects were not primed in this experiment, but the idea of priming raises the issue of psychological aspects of smell. We recall items of the past via smells. For example, the smell of fresh cut grass may remind certain people of spring when they were children. Smells prime the memory for past events but they may not always affect short-term memory immediately. Perhaps if we used the same subjects and exposed them to the same scent during another memory test, they would do better than naïve subjects. Future research should investigate this idea.

Although there were no statistically significant results, it is very interesting to note how heart rate slightly increased in the lemon condition and decreased in the lavender condition. Maybe this result is some indication that there was something happening, but other factors could have possibly counterbalanced these effects.

There were a few factors that could have played a significant role on these negative findings. When some participants were done with the memory tests, instead of waiting for the researcher to come back into the room, they got up to open the door or knock on the door to inform the researcher that they were done. This simple act, though seemingly trivial, would cause the subject’s heart rate to increase in that instant, giving a higher reading than she/he would have normally had. Similarly, when other subjects were done with their tests, they sat for a few minutes before the researcher returned to the room for the heart-rate reading. This situation could have caused participants’ heart rates to be lower than they were right after finishing the test because they had been sitting doing nothing. Some technical factors that could have resulted in the negative findings in this experiment were the facts that the lemon essential oil was nowhere near as strong as the lavender essential oil, and the lemon scent faded much faster. In the present study, it was much more imperative to make sure that the lemon smell was reapplied before a new participant entered the lemon room than it was with the lavender smell in the lavender room. Sometimes, after a participant left the lemon room, the smell was so faint that the researcher who knew the conditions could barely smell it; conversely, the lavender was overwhelmingly strong at times. Knowing that our olfactory systems adapt very quickly (Dewey 2007), if
scent is not strong to begin with, it might have had even less of an effect; the weakness of the lemon odor along with the fast adaptation seem to be a valid explanation as to why there was no significant increase in heart rate in the lemon condition.

Heart rate is a difficult factor to measure because heart rate can vary so much. This experiment was an “across-subjects study,” meaning that different people were used for each condition. Future research will utilize within-subjects studies to get a more accurate idea of how the different scents really affect people. With fewer people needing to be used, a within-subjects group would probably reduce many of the external factors that could negatively affect results. Trying different everyday smells could also be considered in future research. For example, the researcher could use coffee as a stimulant instead of lemon, because many people use coffee to wake up in the morning. Running this experiment again with coffee and lavender as the scents, and using the same participants for a different set of memory tests would create a comparison of the original results and the new results to see if there is a main effect of priming. This is an important avenue to explore because if there were a connection between scent, heart rate, and memory, people from all different backgrounds and professions could enhance their own or other people’s memories for what they need to know by simply releasing a certain smell into the air. Students could better remember material for tests, grade-school teachers could have scents in the classroom to better help children learn reading or math, and even CEOs could have some smell in the air during meetings so that they and their employees leave the room remembering what was just discussed. Though seemingly trivial, this research may be the brink to memory enhancement.

CONCLUSION
The sense of smell is a unique sense in the way that it is interconnected with different functional systems in the brain, such as the emotionally centered limbic system and the hormone-regulating endocrine system, and in the way that the olfactory bulbs are attached directly to the cerebral cortex. Existing research found that certain smells can evoke changes in physiological responses as well as moods and cognitive processes, but the present research examined whether there was a relationship between a stimulating or soothing scent, heart rate, and short-term memory. The researcher hypothesized that the stimulating scent of lemon would cause an increase in heart rate and improve memory compared with the soothing scent of lavender, but the findings of this experiment did not statistically support this hypothesis. Due to the wiring of the brain and how the olfactory bulbs are connected to the
amygdala, which communicates with the hypothalamus, this researcher still thinks that smell may affect heart rate. With the exclusion of the limitations found in this present study, the current hypothesis may be supported in future research.
REFERENCES


Violent Video Games: The Effects of Gender Match on Levels of Aggression

by Sunny Lee
Faculty Mentor: Dr. Kimberly Roberts

ABSTRACT

This study examined the relationship between gender and violence in video games on levels of aggression. Participants were college students; ages ranged from 18 to 46 (M = 20.74, SD = 4.82). Both passive and active aggression and attitudes towards violence were measured. Two-way analysis of variance (ANOVA) found no significance between gender-matched and gender-unmatched participants, but there was significance between violent and non-violent games, p = .001. The gender-unmatched group in the violent video game condition approached significance (p = .06); power analysis indicated that more participants were needed to achieve significance. These findings suggest that violent video games increase aggression levels.

Raise your fists and get ready to fight to the brutal finish. The battle comes alive with bone-jarring realism as you pummel your opponent and do your utmost to inflict maximum damage. Your fists are fast and your grip is strong, but will it be enough to help you dominate in the ultimate King of Iron Fist Tournament?

So begins the synopsis on the Best Buy Web site (2010) for the recent release of Tekken 6, part of the Tekken video game series. Video games have become a big hit in the recent decade because of new and exciting game consoles such as the Sony PlayStation 3, Microsoft Xbox 360, and Nintendo Wii hitting the shelves of virtually all electronic stores. Video games have reached a new level of awe. These new gaming consoles come with the technology and advancements of video graphic images that put the world’s first gaming console, the Magnavox Odyssey 1972, in its place in history. Gaming today far surpasses everything that preceded it.

Every sentence in the previously quoted synopsis delineates one thing, violence. Violence is the most common theme for video games today and magazines for video games contain mostly advertisements for action and fantasy games, which are more violence-based than any other genres.
Scharrer’s research found that 55.8 percent of 1,054 video game advertisements contained at least 1 act of violence and 2.5 weapons, with guns as the most frequently occurring weapon. Past research has found that those who played a violent video game had an increase in aggressive thoughts, aggressive feelings, and heart rate (Barlett and Rodeheffer 2009). The *Grand Theft Auto* video game series by RockStar is among the most violent. The game lets the player beat, destroy, and kill anything that moves, whether it is an opponent or an innocent bystander walking down the street. Other violent games, such as *Command and Conquer* by EA Games, simulate war and allow players to build armies and subjugate nations. Due to the advancements in video graphics, the blood and gore depicted is close to that of reality. In fact, it has been indicated that the more blood shown in a violent video game, the greater increase there will be in arousal and hostility (Barlett, Harris, and Bruey 2007). Violence found in games may even be more harmful than violence in television because research has indicated that individuals playing a violent video game had more aggression than individuals watching a violent video game being played (Polman, Castro, and Aken 2008).

Violent video games allow individuals to experience a life with no punishments. It is a fantasy world that has no consequences for violence, in fact, these games reward violence. Rewards come in forms such as high scores, earning money in the game, and gaining new powers and new weapons to use. Ultimately, the highest reward is winning the game. Carnegey and Anderson (2005) found that rewarding violence in video games can increase aggressive affect, aggressive cognition, and aggressive behavior. These video games come with real-life negative effects.

Most video games include violent content and these violent games are among the games being purchased and played by youth (Gentile, Lynch, Linder, and Walsh 2004). Game ratings are set so that people can choose games that are suitable for a particular age group or audience. The Entertainment Software Rating Board (ESRB) is an organization that assigns age and content rating guidelines to computer and video games, and other entertainment software, to prevent exposure to inappropriate audiences. When parents are looking for video games for their underage children, games rated “E for everyone” would probably be the best fit. The ESRB describes games rated E as having content that may be suitable for persons aged six and older and titles in the category may contain minimal cartoon, fantasy, mild violence, or infrequent use of mild language. This rating means that even video games rated “E for everyone” can contain violent content. This oversight allows children as young as six to be exposed to some sort of violence.
Eliminating all violent video games is not necessary at this point but it is important that society, especially parents, keep an eye on the aggression that these games can produce due to excessive playing, especially in young children and teenagers. Research demonstrates that violent video games can cause aggressive behaviors. Technology and visual graphics used in the production of video games will only continue to get better and so will the graphic nature of violent video games. It would not be a surprise if this decade brings in new features in video games such as three-dimensional pictures or virtual reality simulators, making the experience that much more realistic.

**Gender Differences in Gaming**

Men and women are dissimilar due to different levels of hormones and interest, therefore, gender differences exist. Only a modest amount of research has been conducted to assess the effects of playing as a male or female character on aggression levels in violent video games. Easten (2006) found that females who played as a male character against a female character had significantly decreased aggressive thoughts. He also found that the presence of aggression was greater when the female participants matched themselves to the game character’s gender and that fighting against a human opponent instead of the computer increased aggressive thought. His study focused solely on female participants.

The current study will further investigate the effects of using a male or female character on aggression level with both male and female participants. The present research hypothesizes that a participants who play a video game as characters who matches their own gender will have a more positive attitude towards violence, and a higher level of passive and active aggression compared with those who do not play as a character who matches their own gender.

**LITERATURE REVIEW**

Playing video games has become one of the favorite activities of American children (Gentile et al. 2004). There are numerous policies that have been proposed at the local, state, and national level to restrict youth access to violent video and computer games, because many parents, clinicians, researchers, and policy-makers are concerned that electronic games, especially those featuring violent content, may be harmful to youth (Olson, Kutner, and Warner 2008).

**Preference**

To examine young adolescents’ descriptions of why they play video games, what leads them to choose games with violent content, and how they perceive the influence of games on themselves and their peers, Olson et al.
(2008) found that boys were attracted to violent video games for specific reasons, including: (a) fantasies of power and fame; (b) challenge, exploration, and mastery; (c) emotional regulation, especially coping with anger and stress; (d) sociability (cooperation, competition, and status seeking); and (e) learning new skills (particularly in the case of sports games). Cohen (2009) found that time management differences among males and females is one of the reasons boys spend more time playing video games than girls. On average, girls and women are less involved with video games than are boys and men, and when girls and women do play, they often prefer different games (Hartman and Klimmt 2006). They found that females were less attracted to competitive elements in video games and those that lacked meaningful social interaction. Violent content and sexual gender role stereotyping of game characters were the most important reasons females disliked games. Females often preferred non-violent games and games with social interactions. Funk et al. (2002) found that boys consistently had a higher preference for violent games than girls. It may also be likely that aggressive or hostile youths may be drawn to violent video games (Olson, Kutner, and Beresin 2007). Examining gaming advertisements, Scharrer (2004) found that violent content is portrayed most often in games rated “M for mature” and “T for teen,” which is consistent with the ratings of the ESRB. Most young adolescent boys and many girls routinely play M-rated games (Olson et al. 2007). Bijvank, Konijn, Bushman, and Roelofsma (2009) concluded that restrictive age labels and violent-content labels increase the attractiveness of video games, especially for boys.

**Content Effects of Violent Video Games**

Gentile et al. (2004) found that adolescents who exposed themselves to greater amounts of video game violence were more hostile, reported getting into arguments with teachers more frequently, were more likely to be involved in physical fights and perform poorly in school. In addition, anger significantly moderates the effect of video game violence on aggression (Giumetti and Markey 2007). Specifically, persons who were angry to begin with prior to the study were found to be aggressive and more affected by violent video games than persons who were not angry prior to the study.

Barlett and Rodeheffer (2009) conducted a research study comparing two violent video games, realistic versus non-realistic. It was found that those who played the realistic violent video game had higher heart rates and higher aggressive feelings compared with those who played the unrealistic violent video game. Another study conducted by Barlett, Branch, Rodeheffer, and Harris (2009) found that the increase in aggressive feelings and aggressive thoughts from short-term violent video game play lasted less than four minutes, whereas heart rate and aggressive behavior lasted four to nine minutes.
Carnagey, Anderson, and Bushman (2007) argue that, after violence exposure to violent video games, a decrease in heart rate and Galvanic Skin Response (GSR) were indicated when participants were exposed to real-life violence. Carnagey et al. (2007) defined “physiological desensitization” as showing less physiological arousal to violence in the real world after exposure to video game violence in the virtual world. After playing a violent video game, individuals viewed a videotape of real-life violence while their heart rate and skin responses were measured. Those who were exposed to the violent video game had a significantly lower heart rate and GSR than those who did not play a violent video game, which suggests that violent video games may numb the effects of real-life violence.

New generation violent video games contain substantial amounts of increasingly realistic portrayals of violence (Weber, Ritterfeld, and Mathiak 2006). New gaming options offered by many games today enable people to create an in-game character. Fischer, Kastenmuller, and Greitemeyer (2009) conducted research using gaming options that allow participants to create an in-game character. Results concluded that participants who played a violent video game and created their own in-game character had a greater increase in aggression level than participants who played the same violent video game but did not create a personalized character.

Barlett, Harris, and Bruey (2007) conducted a study investigating the amount of blood present in violent video games. The game Mortal Kombat: Deadly Alliance has a game option that allows players to adjust blood exposure during game play. The study concluded that those who played in the maximum and medium blood-exposure conditions had a significant increase in heart rate and a higher level of hostility than those who participated in the low- and no-blood-exposure conditions.

**Methodology**

Recruitment of participants was allowed by the researcher after a Human Subjects Committee approved the experimental protocol. A total of 36 participants (15 men and 21 women, ages ranging from 18 to 46; $M = 20.74$, $SD = 4.82$) were recruited through the Psychology Department of California State University, Sacramento. Their required participation in research earned them credit towards course work. The study had a 2 (type of game: violent versus non-violent) x 2 (gender: matched versus unmatched) between-subjects design. Participants were randomly assigned to one of the four experimental conditions.
Materials
The independent variables were video games and gender. The violent video game that was used in this study was *Mortal Kombat: Unchained* by Midway. This video game was chosen for this study because of its ESRB game rating of “M for mature” for blood and gore and intense violence. The participants were randomly assigned to play as a male character or a female character; they were not allowed to choose the gender of their character. The game simulates fighting against opponents using weapons and special combination moves. Matches were best out of three and opponents were randomly selected. The non-violent video game used was *Hot Shots Golf: Open Tee 2* by Sony. This game was chosen for its game rating of “E for everyone.” Participants playing *Hot Shots Golf* were randomly assigned to play as a male or a female character, the same as for the violent video game. This game simulates playing golf. The matches consisted of eight rounds but if three rounds were won in a row, victory was awarded. Opponents were also randomly selected.

The dependent variables were attitudes towards violence and both passive and overt aggression. Attitudes towards violence were measured using the Attitudes Towards Violence Scale (Anderson, Benjamin, Wood, and Bonacci 2006), which is a 39-item questionnaire that asks participants to respond to statements such as “War is often necessary” on a 1 (strongly disagree) to 5 (strongly agree) Likert-type scale. The Attitudes Towards Violence Scale is broken up into four subscales: War (12 items; $\alpha = .79$), Penal Code Violence (7 items; $\alpha = .83$), Corporal Punishment of Children (8 items, $\alpha = .87$), and Intimate Violence (12 items, $\alpha = .89$). The present research used all four subscales together instead of separately. Passive aggression was measured using a questionnaire developed by the researcher. This 19-item questionnaire asked participants to respond to statements such as “I feel the urge to cut off people when they are driving slowly” on a 1 (strongly disagree) to 5 (strongly agree) Likert-type scale. Two of the items were reverse coded, meaning that lower scores indicated higher passive aggression. Cronbach’s alpha indicated an acceptable internal consistency reliability, $\alpha = .81$. Overt aggression was measured using chili sauce as demonstrated by previous research (Fischer et al. 2009). In Fischer’s study, participants were asked to also participate in a marketing study involving a new brand of chili sauce. Participants were told that this new chili sauce was extremely hot and that 84% of college students did not like the taste of the chili sauce. They were then asked to pour an undetermined amount into a cup for a person to taste.

Procedure
Participants in the present study were college students recruited from California State University, Sacramento. They were asked to devote 30 minutes of their time to this experiment. The participants were randomly
assigned to use Sony’s handheld game system, PlayStation Portable, to play a violent video game (*Mortal Kombat*) with a male character or with a female character, or to play a non-violent video game (*Hot Shots Golf*) with a male character or with a female character.

Participants were told that the study was for marketing purposes only. Deception was necessary in order to keep the purpose of the study hidden. All participants had access to each video game’s booklet, which provides a guide to playing the video game. After game play, participants were asked verbally how much they liked or disliked the video game. All participants were reassured that their results would remain confidential and that they would receive any follow-up information they might request from the researcher. All participants filled out a general demographic questionnaire and answered a survey assessing their attitudes towards violence and a survey assessing individual characteristics after playing a violent or non-violent video game.

After playing one of the video games, the Attitude Towards Violence Scale (Anderson et al. 2006) was used to assess individual attitudes towards violence and the researcher-developed questionnaire was used to assess passive aggression. Responses to the items were assessed on a five-point summative response scale using the end-of-scale anchors of “I disagree” and “I agree.” After the initial experiment, participants were then asked to participate in a marketing study that involved tasting chili sauce as used in a previous study demonstrating aggression levels after playing a video game (Fischer et al. 2009). In reality, no one was actually asked to taste the sauce nor were they given any chili sauce to consume. This activity assessed levels of overt aggression. The answers to the questionnaire were recorded and the amount of chili sauce poured into a cup by each participant was measured in grams.

**RESULTS**

The results of the 2 (type of game: violent versus non-violent) x 2 (gender: matched versus unmatched) between-subjects design analysis of variance (ANOVA) did not find significance for the match main effects or the interaction effect between game and match conditions. The match condition did not have a significant effect on active and passive aggression or attitudes towards violence. The type of game played had no effect on passive aggression and attitudes towards violence. However, analysis did reveal a significant main effect for active aggression ($M = 27.86, SD = 18.55$) in game $F(1, 32) = 13.31, p < .05, \eta^2 = .29$. Figure 1 shows the difference in the amount of chili sauce poured between the players of the two different games. The violent video game group poured 17.38 grams more chili than the group that played the non-violent game; significant at $p = .001$. Individuals
who played the violent video game were more actively aggressive than those who played the non-violent game, demonstrated by the large amount of chili sauce they poured.

Figure 1. The violent video game group demonstrated a higher level of active aggression than the non-violent video game group.

In the violent game condition, the amount of chili sauce poured was explored to assess the nature of its significance. Pair-wise comparisons did not find a significant difference in the amount of chili sauce that was poured between groups who were gender matched and unmatched in the violent game condition, although it was very close with the groups that were gender unmatched, pouring more, \( p = .06 \). This result suggests that a trend may be present. Power analysis was conducted to assess if the non-significant finding was due to the lack of participants in the experimental condition. The result indicated that in order to get a power of .8 or above and achieve statistical significance, each experimental group would need to have twelve participants or more.

Results were further explored through simple main effects to determine if there were differences between individuals who played the violent game within the matched condition. Interestingly, when gender was added into the interaction effect along with game and match, there were differences between males. Those who were gender unmatched were more aggressive, meaning they poured more chili sauce than those who were gender matched, \( p = .03 \). Differences between females who played as gender matched and unmatched were not statistically significant.
The current study investigated the effects of playing a video game as a character who is gender matched on levels of aggression during violent video game play. Fantasy and adventure games, which are mostly violent, are the most common theme for video games today (Scharrer 2004). Past research has indicated that violent content in video games increases aggression in individuals who engage in violent video game play. The hypothesis being tested in the present study was that participants who played a violent game and who matched their gender with that of the game’s character would have a higher passive and overt aggression level, and a more positive attitude towards violence. Analysis indicated that the gender matching had no significance on passive and active aggression and attitudes towards violence. The type of video game had no effect on passive aggression or attitudes towards violence. However, the type of game had an effect on active aggression levels. Participants who played the violent video game, Mortal Kombat, demonstrated a higher active aggression level than those who played the non-violent game, Hot Shots Golf. Participants in the violent video game condition poured significantly more amounts of chili sauce than those who were in the non-violent video game condition. Although the violent video game produced a higher aggression level in individuals, there was no statistical significance among the match conditions within the violent game. However, it should be noted that males who played the violent game and were gender unmatched demonstrated a higher aggression level than males who played the same game but were gender matched.

Results of the current study are consistent with past research. The chili sauce experiment had the same effect in the present study as for the past study conducted by Fischer et al. (2009). Those who played a violent video game poured out significantly more chili sauce for someone to taste than those who played a non-violent game.

Easten (2006) concluded that females who played as gender-matched game characters exhibited more aggression than those females who played as gender-unmatched game characters. The current study did not find such significance between female participants. In his research, Easten had control over the gender of the participant’s opponents in the game. Easten’s female participants also had a lower aggression level when they played as a male character facing off against a computerized female character. Reasons for the different outcome from Easten’s study could be that the current study did not have control over each participant’s opponents. Opponents were randomly selected by the game software and participants played the video games in an isolated room with no other persons present. An expansion of the current
study would need to have control of computer opponents in order to add contributions to Easten’s study. An experiment using the same protocol as Easten’s but with only male participants would test if gender matched conditions are the same for both genders.

A possible confound for why passive aggression and attitudes towards violence did not achieve significance in the violent video game condition is that participants may have had an idea of what the study was predicting even though participants were told that the entire experiment was for marketing purposes only. The passive aggression questionnaire as well as the Attitudes Towards Violence Scale both had statements that asked individuals to rate themselves on whether they agreed or disagreed with their own characteristics of violent acts. The measurement was apparent, so participants may have inhibited their true feelings and altered their responses. A reason why the chili sauce experiment was successful at achieving significance in the game condition is that the purpose of the chili sauce and what was being measured were not immediately clear.

LIMITATIONS
The lack of participants was a major limitation in the current research. Participants were drawn from a pool of students enrolled in Introduction to Psychology courses at California State University, Sacramento and, because there were more researchers conducting studies than there were students, the appropriate amount of data was not acquired. There were also more female student than male student participants, so the gender variable was unequal.

FUTURE RESEARCH
Future research will need to pay special attention when experimenting with violent video games and using questionnaires to measure aggression levels. Asking participants to fill out aggression questionnaires will most likely reveal the purpose of the study. A possible solution would be to add in random questions that ask about topics other than aggression. In addition, more studies using children and teens as participants may be more beneficial because the developmental stage may help researchers understand if aggression levels change over time.

CONCLUSION
The findings of the current study suggest that violent video games increase aggression and that the gender of the game characters may play a role, depending on the gender of the player. The trend for individuals playing
violent video games is not decreasing, but rather is increasing due to exciting new technological advancements and creativity. In addition, it is important to remember that not all non-violent games are appropriate for everyone as defined by the ESRB because even non-violent games can contain acts of violence. It is important that attention is given to specific contents of violent video games especially by parents.

Three-dimensional televisions made their debut this year. Nintendo will be releasing the highly anticipated, first three-dimensional handheld game in the coming months. This year will mark the next generation of video games. The effects of those games on levels of aggression need further study because the next generation of our youth may become more aggressive from playing video games. Therefore, more research needs to be devoted to violent video games and its association with aggression in school-aged children.
REFERENCES


Hmong High School Students’ Perceptions and Motivations Toward Higher Education

by Zoua Lor
Faculty Mentor: Dr. Serge Lee

ABSTRACT
The purpose of this study is to explore the perceptions and motivations toward higher education among Hmong high school students. Six Hmong high school students (juniors and seniors) in Sacramento, California participated in this study by completing an interview questionnaire containing open-ended questions regarding the students’ home and cultural environments, current academics, opinions about higher education and motivations about education. The results of this study could better assist teachers, educators, and the community in general in understanding the Hmong student population and factors that contribute to their success.

The Hmong have lived in the United States now for approximately 35 years since they started arriving in 1975. Prior to their journey to this country, many were illiterate and had little or no education for several reasons (Lo 2006). One of the major reasons was because the Laotian government did not set up schools in geographical regions where the Hmong and other minority groups resided. Another reason was because families could not afford to send their children to school. For wealthier families who were able to afford education, they mainly sent one child to school, preferably a boy. It was believed that sons would bring wealth and take over the family name, while daughters would not because they would get married and contribute wealth and investment to the husband’s family (Thao 1996).

During the Cold War era, Hmong children were not the only group who lacked education, as their parents also lacked education. Because the Hmong lived in the mountainous areas of Lao, education served a limited purpose in their agricultural environment. Everyone from the villages took part in farming responsibilities. However, after the Hmongs’ resettlement in the United States, some Hmong parents were able to obtain some level of education. For example, they learned how to speak, read and write English. While some parents attended adult school and learned English, many did not
and relied on their children to translate documents and be interpreters of English (Podeschi and Xiong 1990).

In the past three decades, many Hmong students in the United States graduated from high school and continued with higher education, while others chose to not follow this path due to various reasons. Among the high school graduates, more and more of them are pursuing higher degrees at the master and doctoral levels. The population of Hmong enrolled in universities and city colleges is also increasing (U.S. Census Bureau Community Survey 2008).

**PURPOSE**

The purpose of this study is to explore the views of Hmong high school students toward higher education and its surrounding factors. In analyzing these views, the researcher hopes to discover the perceptions and beliefs that exist among Hmong high school students. By discovering these perceptions, it is anticipated that the results will better assist teachers, educators and the American community in understanding this phenomenon within the Hmong student population in America. Lastly, the researcher anticipates that the findings from this study will lead to other studies that may be conducted to further understand and serve this population.

**RESEARCH QUESTIONS**

This study attempts to answer the following questions: What do Hmong high school students think about education beyond high school and what is their understanding of pursuing it? Do they know how to utilize their high school campus resources to find out about attending college? What are their inspirations and aspirations about higher education, if they have any? Are family and friends a major influential contribution to their studies? What, if anything, are they doing in high school to prepare themselves for college? Overall, this study hopes to find the perceptions and motivations of Hmong high school students toward higher education.

**LITERATURE REVIEW**

Throughout high school, students are exposed to the opportunities for higher education. College counselors and administrators visit high schools to reach out to potential enrollees. However, some students have little exposure while some are more informed about their options after graduation. Lo (2006) examined four variables, including culture, parents, friends, and college accessibility, to assess Hmong high school students’ decisions to pursue higher education. In Lo’s study, only three out of four variables had positive influences: culture, parents and college accessibility. The results do not
necessarily reflect the individual’s perspectives about higher education and there are other variables that need to be examined.

In order to understand the Hmong students and their perceptions about higher education, their identity as Hmong must also be understood. The following discussion will provide an insight about the Hmong, including a snapshot about their history, resettlement in the United States and a brief overview of their culture, including their education, language, and social structure. In addition, Hmong motivation in education will be examined.

Who Are the Hmong?
Though there are between five and eight million Hmong worldwide, relatively few Americans know much about the Hmong people. It is only in the United States and in Canada after 1975 that the name Hmong existed in the literature and was being used the way the Hmong prefer. In other countries, the connotative names “Meo” and “Miao,” which literally translate to mean barbarian, cat (the meow sound from a cat), rice shoot, or dirty people, continue to be used by government officials as well as lay people. The Hmong are among one of the newest refugee groups to the U.S; they began arriving in the U.S in the mid-1970s after the fall of Saigon and the withdrawal of U.S. forces from Southeast Asia in 1975 (Hamilton-Merrit 1995). The Hmong were strong allies to the United States during the Vietnam War, even while facing political persecution and genocide as a result of their involvement with the Central Intelligence Agency (Hamilton-Merritt 1995).


Demographically, the Hmong are a relatively young population (median age = 19.7) compared to 36.7 years of age for the entire U.S. population. An average Hmong household consists of 5.47 members compared to 2.61 members per household for the overall U.S. population. Nationally, in 2000, the per capita income for Hmong was $10,837 versus $26,668 for the U.S. as a whole. More than 25% of the Hmong have incomes below the poverty level, versus 13.0% of the U.S. overall population. Finally, 92.7% of the Hmong speak languages other than English in the home with 44% speaking English “less than very well” compared to 19.7% of the U.S. population as a whole who speak languages other than English in the home, with only 8.7% speaking English “less than very well” (Pfeifer and Lee 2004).

This information indicates several factors for the Hmong population. Since the Hmong are a relatively young population with a per capita income of $10,837, this could mean that they may have not obtained higher education to earn the median income of the U.S. In addition, many are living below
poverty level and speak very little English; this could indicate that they lack education (Pfeifer and Lee 2004).

Cultural Background
The Hmong culture is a combination of several variables such as social structure, cultural practices, traditions and customs, religion, economics, education, language and clothing. The most relevant variables to the topic of motivation and higher education are social structure, social economics status, resettlement in the U.S., language, education, and motivation, which are discussed in detail next.

Social Structure
The Hmong social structure is a patrilineal clan system (Thao 2004). There are roughly 18 clan surnames, depending on the scholar discussing the topic. The common surnames are Chang, Cheng, Chue, Fang, Hang, Her, Khang, Kong, Kue, Lee, Lor, Moua, Pha, Thao, Vue, Xiong, Vang and Yang (Thao 2004). Normally, the father's clan name is passed down and identifies a person's family. During marriage, the wife takes on the husband's name and forms her new identity. Each clan has a leader and the leader plays various roles, such as settling disputes, making important decisions, representing his communities and other roles involving leadership (Thao 2004).

Within the social structure, there are gender roles that are learned and taught from birth. Since the Hmongs' lifestyle in Lao is based on farming and agriculture, the man is more involved in the public issues outside the house, whereas the woman is more involved within the home and taking care of the children (Vang 1999). This structure gives the man social standing and power to make decisions for his family since he is the breadwinner and performs most of the physical work of labor. Lo (2006) states that, “a Hmong woman's purpose in life is to serve her husband and his family. She is to be a dutiful wife and not question her husband’s judgment” (13). Even within the family, sons are given more privileges and freedom than daughters. Daughters are taught to cook, clean and perform domestic chores in preparation to become good housewives. Sons are expected to carry on the family name and traditions and are, therefore, given more privileges.

Social Economic Status
The traditional Hmong economy is reflected in their agricultural lifestyle in Lao (Yang 1993). They rely solely on food crops for survival such as rice, corn, cucumber, squash, pumpkin, cabbage, beans, soybeans, potatoes and fruit. Rice is an important production in the Hmong economy (Lee and Khang 1988). It is also the major source of nutrients in the Hmong diet and it is included in every meal. Everyone in the family contributes to the cultivation of the crop for
faster and better efficiency. The two most important non-food crops are hemp (a soft durable fiber) and the opium poppy, which is grown for trade; both crops are great sources of cash (Yang 1993).

In addition to the Hmong’s occupations in agriculture, livestock is also important in their traditional economy (Yang 1993). Livestock is not only used for food consumption, it is also used for ritual sacrifices as part of their spiritual ceremonies and for hauling loads of crops. Types of livestock include swine, cattle, water buffalo, horses, goats and chickens (Yang 1993). Since the traditional Hmong society practices an agricultural lifestyle, formal education is not essential to survival.

**Resettlement in the United States**

Due to the aftermath of and the harsh living conditions under the Vietnam War, the Hmong first fled to Thailand for refuge, then to the United States in May 1975 (Thao 1999, 57). The second wave arrived in the U.S. in the early to mid-1980s and the third wave in the early to mid-1990s. The Hmong who arrived during the first wave were more educated and comfortable with the western culture. The following wave of Hmong immigrants was less educated and illiterate in the English language. They were scattered throughout the United States; however, the majority resided in California, a state that continued to be populated with refugees throughout the 1990s (Miyares 1998). Many Hmong experienced the process of “acculturation,” which is the learning of cultural patterns of a dominant culture (Hutchison 2008). Refugees were expected to learn a new language and become accustomed to technologies that they had never known. The skills they learned from their homeland were useless in America’s job market; therefore, they had to learn new skills to support themselves and their families.

**Language**

The Romanized Popular Alphabet (RPA) system of the Hmong language was developed in the early 1950s by three missionaries from the Christian and Missionary Alliance: Linwood G. Barney, William A. Smalley, and Father Yves Bertrais, a French Catholic priest (Thao 1999). Before the written Hmong language was developed, the Hmong people relied on oral language to pass down stories, traditions and practices from generation to generation.

**Education**

The traditional Hmong society in Lao did not have any form of educational system. They were considered minorities in Laos. According to Yang (1993), the illiteracy rate even today is estimated at more than 99% in certain mountain regions of Laos because the government designed an educational system that excluded opportunities to its minorities. For example, the
Hmong students had to learn and study in the Lao language. Not only were educational opportunities limited, but Hmong families who could afford to send a child to school did so by sending only their sons. Additionally, because of the interruptions of wars, even families wealthy enough to send a son to school had little chance to obtain education (Podeschi and Xiong 1990).

A recent study in Stockton, California has shown that Hmong high school students value higher education (Lo 2006). The students are aware of their parents’ emotional support and want to succeed in school. The Hmong culture also places a high value on education because of the suffering the Hmong have experienced; many Hmong believe that education will bring them up the social ladder (Lo 2006). One concern is that these students are only slightly exposed to information about how to obtain higher education (Lo 2006).

Motivation
Motivation is an important quality that students hold. Pintrich and Schunk (2002) define “motivation” as “the process whereby goal-directed activity is instigated and sustained” (5). Each individual has some goals in mind that he/she is trying to achieve. To achieve these goals, the individual has to also maintain motivation. Motivation also requires a physical and or mental activity such as planning (Pintrich and Schunk 2002). Motivated students show interest in their studies, focus on tasks and perform well. Unmotivated students are the opposite: they do not perform as well and show little or no interests in their studies. Therefore, motivation affects students’ success in school and can be a determination of whether they will prosper academically or not.

There are two types of motivation that can be identified. “Intrinsic motivation” is the motivation students have to “engage in an activity for its own sake” (Pintrich and Schunk 2002, 245). People engage in activities because they enjoy doing so and the reward they receive is solely based on participating in the activity. On the other hand, “extrinsic motivation” is motivation to engage in an activity for external rewards (Pintrich and Schunk 2002, 245). Some external rewards can be money, grades, and prizes that motivate people to achieve and engage in activities.

In past decades, the literature indicated that, compared to other refugees and immigrants before them, the Hmong are doing remarkably well, especially in their social, political, and educational attainment. Only 5 years after arriving in the U.S., there are Hmong lawyers, doctors, professors, legislative leaders, nurses, teachers, and entrepreneurs. It is speculated that in a few more decades, the Hmong should be able to catch up with their Asian American counterparts, mainly Chinese, Japanese, Vietnamese, and Korean Americans. This research attempts to uncover some of the perceptions and motivations towards higher education among Hmong high school students.
The participants selected for this study were Hmong high school students in the Sacramento City Unified School District, ages 16- to 18-years old. There were two females and four males. These students are in the 11th and 12th grades. To be eligible for this study, the high school students must have been enrolled at a local high school. The students were contacted personally through friends and acquaintances of the researcher and her family. The collection procedure was based on snowball sampling rather than random sampling because it is difficult and time consuming to get human subjects protection approval by the school district and California State University, Sacramento.

The method of in-depth interview was used to gather information about the participants. The questions were open-ended to gain a better understanding of how each participant felt about higher education. The researcher asked several closed-ended questions about the participants’ gender, age and class status. Participants were interviewed for approximately 30 to 60 minutes. The students’ responses were typed by the researcher during the interview. A questionnaire was developed to help guide the researcher when interviewing the participants. The researcher developed approximately 50 questions that were then categorized by culture and home environment, by perception about education and college and by students’ academics and motivation.

The data analysis was begun by compiling and submitting the questionnaire, consent forms and the application to the Human Subject Committee of the Social Work Department at California State University, Sacramento for approval. Once the committee approved the research study as having no risk to participants, the researcher began contacting local high school principals for permission to interview Hmong high school students who were juniors and seniors. Once permission was granted, the researcher started recruiting Hmong students. Many were conveniently recruited as participants for this exploratory research project. Once the participants were selected and agreed to participate, they were given informed consent forms to sign (or for their parents to sign if they were not yet 18 years old). Due to complications such as the Hmong high school students’ unwillingness to fully participate in the interview process, the researcher decided to focus on recruiting Hmong students from the one local high school that she knew well. The researcher was then able to recruit six students who were acquaintances of the researcher’s friends and family.

The interviews were conducted in the privacy of either the participants’ homes or the researcher’s home. The consent form was again explained in
detail at the start of the interview. All responses from the participants were typed due to the students’ non-consent to be voice recorded. The responses were evaluated based on the categories of the questionnaire. The researcher’s interpretation of the participants’ responses was entirely subjective.

RESULTS AND DISCUSSION

The purpose of this study was to discover the perceptions and motivations of Hmong high school students’ attitudes toward higher education. Variables such as their current academic performances, home life and personal values were explored in depth during the interviews. The interview questionnaire included questions about how participants perceived the importance of their current education and their future in higher education.

Participant Demographics

The researcher interviewed a total of six Hmong high school students between the ages of 16- and 18-years old. All students attended a local high school in the city of Sacramento. The researcher assigned pseudonyms to the participants. There were four male Hmong students; two juniors and two seniors. There were also two female Hmong students, a junior and a senior. Table 1 shows participants demographics.

<table>
<thead>
<tr>
<th>Names</th>
<th>Gender</th>
<th>Age</th>
<th>Class level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jin</td>
<td>Male</td>
<td>17</td>
<td>11</td>
</tr>
<tr>
<td>Brian</td>
<td>Male</td>
<td>16</td>
<td>11</td>
</tr>
<tr>
<td>Ben</td>
<td>Male</td>
<td>17</td>
<td>12</td>
</tr>
<tr>
<td>Nate</td>
<td>Male</td>
<td>17</td>
<td>12</td>
</tr>
<tr>
<td>Dana</td>
<td>Female</td>
<td>17</td>
<td>11</td>
</tr>
<tr>
<td>Nancy</td>
<td>Female</td>
<td>18</td>
<td>12</td>
</tr>
</tbody>
</table>

Table 1. Participant demographics

Home/Cultural Influences

Students were asked about their home life and cultural influences. All students were born in Sacramento, California. They all primarily speak English at school and Hmong at home (Jin, Brian, Dana and Nancy), except for two students (Nate and Ben) who primarily speak English at home and school. The students can moderately read and write the Hmong language. All participants reside with their family members, ranging from three to ten people living in the home. The girls have similar responsibilities and house chores, such as helping out their mother in the home with cooking and cleaning. Two of the boys (Ben and Brian) also mentioned helping their mother. On the other hand, the two other boys (Jin and Nate) did not mention any house chores, but referred to their responsibilities as chores.
requested by their parents. The girls reported that they receive different treatment than their brothers. For example, their brothers have more freedom and fewer expectations to do chores. The male students also recognize this trend because they too believe that they receive more freedom compared to their sisters. Their parents are more lenient on them when they stay out late at night and when they do not do their household chores.

**Students’ Academic Performance**

All students claimed that their academic progress currently stable. They are all receiving good grades, and very few (only Nate and Brian) mentioned that they have received Cs. All students except Nate are preparing themselves for college; Nate plans to work for a year after high school before he attends college. Three students (Jin, Dana and Nancy) are taking classes beyond the high school graduation requirement to better prepare themselves for college, while the other three students are not. Some students devote their time to either a little or a lot of after-school activities and studying (Nancy, Dana, Ben and Jin), while the other students spend their afternoons with friends and doing leisure activities.

Developing a strong study habit is a positive indicator that students will most likely succeed in school. However, five out of the six students study very little and only do so when there are upcoming exams. Ben, on the other hand, has developed a very strong study habit and studies even when there are no exams. When the students were asked about how they usually feel when they are in school, they responded that they are usually tired, sleepy, or bored. Two students did mention that first period starts at 7:30 a.m., so this early start time may be the cause of their negative reactions. Not one student responded with a positive reaction about the times when they are in school.

**The Importance of Education**

All students agreed that education is very important. They all related education to the success of their futures; they indicated that, with education, they will be able to obtain better jobs and opportunities. They also agree that education is very important to their parents. Nancy mentioned that, “it’s very important knowing that they came from a country with not many opportunities and, for that reason, they want us to get the education we need so that our future will be better than theirs.” An interesting point that Nate talked about was that his parents view education as something no longer needed, but for the youth, education is viewed as a necessity.

The top priority for these Hmong high school students concerning their education is to achieve good grades. They also emphasized the concept of graduating from high school and continuing on with their education. They
are aware that by achieving good grades, it is more likely that the colleges they apply to will accept them.

**Higher Education**

The Hmong high school students all responded that they want to attend college. Five students (Jin, Dana, Nancy, Brian and Ben) plan to enroll in college right after high school graduation, while Nate plans to work for one year to start a saving before he enrolls in college. Each student has at least one college in mind; some of the colleges mentioned included California Polytechnic State University, American River College, Brigham Young University, California State University, Sacramento, and University of California, Davis. Four out of six students have visited college campuses, while two have not.

When the students were asked if they had any exposure to higher education, they responded that they had been exposed by school counselors and teachers, friends and family members, and school clubs and extracurricular activities. Ben and Nate have been exposed to higher education and leadership activities through a local club, while Dana and Nancy gained insights about higher education through their high school’s scholarships club. The students also knew many people who were in college or who were college graduates.

The students also reported a strong sense of emotional support from their friends and families. Although the parents of five of the students (Jin, Nancy, Dana, Ben, and Nate) lack formal education, the students report that their parents are still very supportive of their goals in education. Since financial support is more difficult to obtain to attend college due to their parents’ limited income, the students feel that they would have to seek part-time employment to support themselves.

Overall, the senior students know about the application process to college, while the juniors have a modest awareness of the application process. Jin mentioned that, “basically it’s admitting your grades, letters of recommendations and an essay about yourself.” Brian said that he does not know much about the process, but he knows where to go and ask for help. Dana said that she knows to apply online because that is what her sister told her.

Lastly, on the topic of higher education, students were asked if they have any recommendations to help Hmong students get more exposure to higher education. Two students recommend that other Hmong students join school clubs and participate in workshops and events to deepen their knowledge and awareness about college. One student also suggested visiting school counselors. In general, these students recommended that others take the
personal initiative to find out more information about college. Jin mentioned that “they can’t just sit and wait for something to happen. They have to be self-encouraging and do the research themselves too.”

**Motivation**

The students’ motivation comes from within their immediate family, friends, and their future goals. For Dana, her motivation in education comes from her parents. She sees that her parents have struggled to provide the family with the best that they can offer. In return, she wants to give back to her family through her achieving higher education. Dana’s mother constantly reminds her that, since Hmong people in Laos never had any educational opportunities, she should stay determined to obtain a higher education.

Another extrinsic motivating factor the Hmong high school students have is the outcome of what higher education has to offer. Jin is motivated by wealth and knowledge, and believes that through higher education he will be able to achieve his dreams. He believes that he will have a better and secured financial future. Brian, Ben and Nate are motivated by outside sources to achieve higher education. They want to be able to financially provide for their parents, themselves and their future families. The students are aware of what higher education has to offer them in the long run.

Another extrinsic motivating factor is the letter grades that the students receive. They are all aware that, with good grades, they will have a higher chance of attending their college of choice. In addition, the students believe that performing well in high school will better prepare them for college courses. It is also rewarding when they see their letter grades because they understand how important these grades are.

**LIMITATIONS**

The limitations of this study included the use of a snowball sampling due to time constraints. Participants were recruited from one local high school and had good academic standing. They were also acquaintances of the researcher and her family. Another limitation was that the researcher is Hmong and if it was not for the researcher’s background, the results might have been different.

**FUTURE RESEARCH**

Using a random sample size of participants is suggested for a future study. Recruiting participants from different high schools would expand this study, compared to conducting interviews from only one high school. In addition,
using a different strategy to recruit students with different academic standings would result in different findings.

CONCLUSION
To reiterate, the purpose of this study was to explore the views of Hmong high school students’ regarding their perceptions and motivations towards higher education. Students were asked about their home environments, current academic progress, future goals and motivations.

The participants live with many family members, with anywhere from three to ten people living in the home. They have family and friends who are attending college and who have already graduated from college. Even with their awareness of education and what it takes to obtain education, the participants still follow their expected roles at home, such as the Hmong female students who are expected to complete household chores, while their brothers are allowed to focus on other tasks.

All of the participants agreed that education is very important to their future, family, career and personal goals. They all plan to attend college either immediately following high school graduation or one year from graduation. Four participants have visited several college campuses, while two have not. They all have in mind which college they want to attend. In addition to their value of education, they are setting their priorities according to their achievement of higher education. All of the participants want to achieve good grades for college entrance requirements, which shows a form of motivation in high school. For example, participants study on a regular basis, attend class and complete homework assignments. Four out of six students are involved in some type of extracurricular activity that expose them to and encourage them to attend college.

Participants were found to show self-motivation. They mentioned several topics about their futures, such as their future families, parents, career, and financial stability. The topic mentioned the most during the interviews was that family and giving back are the most significant motivators. Family leads the students to want to achieve higher education. The students understand the struggles their parents had to face with the lack of education. These factors motivate the students to achieve good grades and perform well in school in order to attend college.

This study also revealed that there are resources available to students. It is only a matter of self-motivation and determination for the Hmong high school students to involve themselves in activities that would better their understanding and knowledge of higher education.
REFERENCES


The Influence of Internet Pornography on College Students: An Empirical Analysis of Attitudes, Affect and Sexual Behavior

by Megan Maas
Faculty Mentor: Dr. Lisa Bohon

ABSTRACT

Pornography use today is becoming more mainstream and normalized, especially since the advent of high-speed Internet (Freeman-Longo 2000). This study was designed to examine the relation between Internet pornography use, attitudes and affect by taking a survey of college students. MANOVA and correlational procedures were used to test the hypotheses that greater pornography use would result in more negative attitudes toward women, more positive attitudes toward sexual assault, more sexual partners and less distress by a partner’s use of pornography. Every hypothesis was supported with a significance level of .05. The results replicated past research despite the sample being 80% female with an average age of 21.

The influence of Internet pornography has been debated and researched by numerous disciplines as the Internet is expanding throughout the world (Allen, Emmers-Sommer, D’Alessio, Timmerman, Hanzal, and Korus 2007). The Internet has become the central vehicle for the distribution of pornography, which has altered the way in which individuals use pornography. The Internet makes pornography available, because nearly everyone has Internet access; the use of pornography has become anonymous, because one can access pornography without anyone else knowing about it; the Internet makes pornography affordable, because one no longer has to spend upwards of 60 dollars on a VHS tape or DVD because the majority of Internet pornography is free; and finally, the Internet makes pornography increasingly addictive, because it removes all barriers to access, and because of the sheer quantity of content, both of which have contributed to heightened levels of arousal that were not prevalent in pornography users before the Internet.

In discussing the influence of pornography use, it is important to define pornography and its distinction from erotica. In one study, Senn and Radtke (1990) differentiated between violent pornography, non-violent pornography and erotica:
1. “Violent pornography” contains “images that portray explicit violence of varying degrees perpetrated against one individual (usually female) by another (usually male).”

2. “Non-violent pornography” contains “images that have no explicitly violent content but may imply acts of submission or violence by the positioning of the models or the use of props. They may also imply unequal power relationships by differential dress, costuming, positioning or by setting up the viewer as a voyeur (e.g., the model is engaged in some solitary activity and seems totally unaware or very surprised to find someone looking at her).”

3. “Erotica” contains “sexual images that have as their focus the depiction of mutually pleasurable sexual expression between people who have enough power to be there by positive choice. They have no sexist or violent connotations and are hinged on equal power dynamics between individuals as well as the camera/photographer” (144).

LITERATURE REVIEW

When you visit most pornographic Web sites, they simply ask you to “click here if you are 18 years of age or older.” The only thing a minor has to do is lie about her or his age in order to visit a pornographic site (Freeman-Longo 2000). Today, the majority of adolescents are exposed to Internet pornography before the age of 18 (Sabina et al. 2008). This new trend is most likely due to people beginning regular use of the Internet in their preteen years (Freeman-Longo 2000). Krauss and Russell (2008) found that early exposure to pornography greatly increases the chance of earlier onset of sexual contact. Furthermore, exposure to pornography accounts for more of the variability in an adolescent’s decision to have sex than influence from parents, religion or schools combined (Kingston, Malamuth, Fedoroff and Marshall 2009).

Peter and Valkenburg (2006) found that the majority of participants had their first sexual encounter within a year of first exposure to Internet pornography. Additionally, they found that exposure to Internet pornography is related to more recreational attitudes about sex, but this relationship is mediated by how realistic the participant perceived the material to be. For example, male adolescents judge the reality of Internet pornography as more real than female adolescents, and young adults judge the reality of Internet pornography as less real than adolescents. These factors influence the relationship between Internet pornography use and attitudes toward recreational sex, making it imperative to investigate if recreational attitudes toward sex that stem from pornography

138
exposure actually translate into recreational sexual behavior, such as multiple sexual partners or unprotected sex.

**Pornography Use and Attitudes Toward Women and Sexual Assault**

Anti-pornography feminists argue that pornography only depicts women as sexual objects that are inferior to men, which reinforces sexist attitudes (Dworkin 1985; MacKinnon 1984, 1989). Pro-pornography feminists argue that pornography is sexually empowering for women, and is a celebration of the human body (Baron 1990). Brosius, Weaver and Staab (1993) used a random sample of 50 pornographic video tapes to analyze the themes depicted in the sexual scenes. Overall, they found that women were depicted as sexual objects that were there only for the purpose of the male to have an orgasm. This dynamic is portrayed the most clearly when identifying the number of orgasms each sex is depicted as experiencing. In 100% of the scenes, the male had an orgasm; in less than 1% of the scenes the female had an orgasm. This ratio, along with other sexual acts found in the footage, suggests that pornography has a chauvinistic approach to sex, which supports the objectification of women. Thus, it is important to evaluate whether or not repeated exposure to pornography will result in more negative attitudes toward women as individuals, in both men and women, because of the degradation of women that routinely occurs in pornographic scenes.

Garcia (1984) found that the more men were exposed to pornography, the more negative their attitudes were toward women and the more positive their attitudes were towards acts of sexual aggression. As a result, pornography users are more likely than non-pornography users to dislike women sexually, accept acts of sexual aggression as normal, and blame rape victims (Bowen 1987). However, Padgett, Brislin-Slutz, and Neal (1989) found that participants who reported watching less than one hour of pornography per month expressed more positive attitudes toward women than women themselves. It should be noted that this study pre-dates the Internet.

Before Internet pornography, the typical pornography user was exposed to significantly less pornography than the typical pornography user today who gets the bulk of her/his pornography from the Internet.

Additionally, pornography varies in type and theme. Sabina et al. (2008) were particularly concerned with the degree of exposure to deviant sexual activity online before the age of 18. Boys in their study who had repeated exposure to pictures of sexual violence were more likely to view acts of sexual aggression positively. Kingston et al. (2008) predicted that pornography use would only be a predictor of recidivism of sexual assault for individuals who were already at high risk for re-offending. They found that pornography use made a significant contribution to recidivism of sexual assault regardless
of the individual’s baseline risk level. This means that individuals who had been incarcerated for sexual assault and exposed themselves to a high level of Internet pornography after incarceration, re-offended more often than individuals who did not expose themselves to pornography after incarceration for sexual assault, regardless of their base line risk level for re-offending. However, the type of pornography viewed was a stronger predictor of recidivism than the frequency of use. Sexual assault offenders who engaged in even a low level of violent pornography re-offended more frequently than those who exposed themselves to a high level of nonviolent pornography (Kingston et al. 2008).

**Pornography Use and Romantic Heterosexual Relationships**

Understanding the differences in how men and women experience pornography psychologically and physiologically is crucial to the understanding of pornography use in romantic relationships. Schneider (2000) found that “[the ways in which] women use Internet pornography differed from men’s Internet pornography use.” Both genders can be equally physiologically aroused by viewing sexual activities online; however, men were more psychologically aroused than women. Additionally, men tended to be drawn to pictures and movies that are based on arousing images and women tended to be drawn to stories and online sex chat rooms, or anything that more closely resembled a relationship. Allen et al. (2007) theorized that the different gender experiences of pornography might be due to the fact that men and women have similar physiological responses to different types of pornography, but women have a more negative psychological response to pornography. For example, women were more likely to rate a pornographic scene as disturbing, wrong, or degrading, regardless of their physiological arousal.

Couples have a unique experience with Internet pornography and if a preoccupation with pornography occurs from one or both partners, there is typically a deterioration of romantic, family and work life (Zitzman and Butler 2005). Bergner and Bridges (2002) found that the dynamics of a relationship change if one partner is using pornography. That partner begins to use pornography in a secretive way. The act of using it, hiding it, and feeling guilty about it makes the other partner feel inadequate, and the user is emotionally withdrawn from her or his partner, which leads to sexual dysfunction and deteriorated emotional intimacy. Gana, Trouillet, Martin, and Toffart (2001) found that when younger people or males grow bored in a relationship, they are more likely to masturbate to pornography than older people or females. Additionally, Hosley, Canfeild, O’Donnel and Roid (2008) found that men are more likely to masturbate to pornography when in a relationship if they do not have a close relationship with their
fathers. Explanation for the results indicates that men, who have strong communications growing up with their fathers, learn about sexuality from their fathers instead of from Internet pornography. If they have a father who teaches them that women need to be respected sexually and that one of the ways to show that respect is by practicing monogamy without use of pornography, the adult son is more likely not to use pornography in his romantic relationships.

Bridges, Bergner, and Hesson-Mcinnis (2003) conducted a study that revealed that women experience a negative view of themselves, their partner, and their relationship once they learn of their partner’s pornography use. They exhibit almost identical behaviors and emotions as someone who experiences infidelity in a relationship. This dynamic has been identified as “pornography distress” (Bridges et al. 2003).

PROBLEM STATEMENT

In an attempt to expand on previous research, the current study investigated the association between pornography use and college men and women’s attitudes and affect, because the chosen variables have not been measured in a female or post-Internet era sample. The purpose of this study was to evaluate differences in distress by a partner’s pornography use, number of sexual partners, and attitudes toward women and sexual assault between participants who engage in low levels of pornography use versus high levels of pornography use. This researcher hypothesized that those who engage in a high level of pornography use will have more sexual partners, have more positive attitudes toward sexual assault, more negative attitudes toward women and be less distressed by a partner’s pornography use.

METHODOLOGY

The participants (N = 179) were 80% female and 20% male students from introductory psychology classes at California State University, Sacramento who participated in this study to fulfill a course requirement. They did not receive any payment for their participation. Questionnaires were used to measure all the variables.

The first questionnaire was the Attitudes Toward Women Scale (Spence and Helmerich 1972). This scale measures attitudes toward women in the areas of vocational and intellectual roles, freedom, independence, dating and courtship, etiquette, drinking, swearing, sexual behavior, and marriage. There were a total of 15 questions. A five-point Likert Scale with anchors from
**strongly disagree** to **strongly agree** was used to measure attitudes toward women. Higher scores indicate a more positive attitude toward women.

The second questionnaire was the *Acceptance of Modern Myths About Sexual Aggression Scale* (Gerger et al. 2007). This scale measures attitudes about sexual aggression. There were a total of 30 questions. The researcher used a five-point Likert Scale with anchors from **strongly disagree** to **strongly agree** to measure attitudes toward sexual assault. Higher scores indicate stronger beliefs that women should be responsible for preventing their own rape, women cause sexual aggression through their dress or behavior, Sexual assault offenders are punished justly, some acts of sexual aggression are warranted, and sexual violence is exaggerated.

The fourth questionnaire was the *Pornography Distress Scale* (Bridges et al. 2003). This scale measures the amount of distress an individual feels in the areas of self esteem, emotional intimacy, trust, sexual connection, well-being, anxiety and depression due to her/his partner’s pornography use. There were a total of 50 questions. A five-point Likert Scale with anchors from **strongly disagree** to **strongly agree** was used. Higher scores indicate a higher level of distress from their partner’s pornography use. Participants were given the option to skip this inventory if they had never been in a relationship with someone who uses pornography.

The fifth questionnaire was the *Sex and the Internet Survey* (Goodson et al. 2000). This scale measures exposure to Internet pornography, motivations to use Internet pornography, attitudes toward Internet pornography use, and emotional arousal from Internet pornography use with a total of 21 questions. It also measures non-sexual use of the Internet, but those sections were left out for the purposes of this study. The researcher used a five-point Likert Scale with anchors from **strongly disagree** to **strongly agree** and **never** to **always**. Higher scores indicate either a higher rate of exposure to Internet pornography, a high level of arousal from Internet pornography, or a positive attitude toward Internet pornography use.

**RESULTS**

Reliability, Descriptives, Correlation, and MANOVA procedures were used to analyze the relations between the chosen variables. The items from the inventories that were negatively worded needed to be recoded into opposite values, and then the variables were computed based on calculating a mean score for each variable. There was a 29-person attrition rate for the Pornography Distress variable, which was to be expected because not every participant had been in a relationship where the partner used pornography.
The *Sex and the Internet Survey* (α = .93), Pornography Distress Scale (α = .97), *Acceptance of Modern Myths about Sexual Aggression Scale* (α = .86), and *Attitudes Toward Women Scale* (α = .70) were all reliable measures.

Table 1 shows the descriptive statistics for all of the measures. Table 2 shows the Pearson Correlation Coefficients for the following variables: number of sexual partners, age when Internet use began, age when Internet pornography use began, attitudes toward women, pornography usage, attitudes toward sexual assault, and pornography distress.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Minimum</th>
<th>Maximum</th>
<th>M</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex Partners</td>
<td>0</td>
<td>90</td>
<td>6.77</td>
<td>13.12</td>
</tr>
<tr>
<td>Age Internet Use</td>
<td>6</td>
<td>30</td>
<td>14.68</td>
<td>3.45</td>
</tr>
<tr>
<td>Age Internet Porn</td>
<td>8</td>
<td>34</td>
<td>15.65</td>
<td>3.32</td>
</tr>
<tr>
<td>Attitude Women</td>
<td>26</td>
<td>73</td>
<td>59.17</td>
<td>8.04</td>
</tr>
<tr>
<td>Porn Usage</td>
<td>0</td>
<td>16</td>
<td>4.89</td>
<td>4.48</td>
</tr>
<tr>
<td>Age Intercourse</td>
<td>8</td>
<td>26</td>
<td>16.52</td>
<td>2.28</td>
</tr>
<tr>
<td>Age</td>
<td>17</td>
<td>37</td>
<td>21.27</td>
<td>3.65</td>
</tr>
<tr>
<td>Attitude Sex Assault</td>
<td>42</td>
<td>146</td>
<td>83.63</td>
<td>19.37</td>
</tr>
<tr>
<td>Pornography Distress</td>
<td>58</td>
<td>237</td>
<td>126.61</td>
<td>48.55</td>
</tr>
</tbody>
</table>

**Table 1.** Range, Mean and Standard Deviation for All Measures. **Notes:** N = 82-111. Attitude Women was measured by the *Attitudes Toward Women Scale*. Attitude Sex Assault was measured by the *Acceptance of Modern Myths about Sexual Aggression Scale*. Porn Usage was measured by the *Exposure to Sexually Explicit Materials on the Internet Survey*. Pornography Distress was measured by the *Pornography Distress Scale*.

<table>
<thead>
<tr>
<th>Measure</th>
<th>NSP</th>
<th>AgInt</th>
<th>AIP</th>
<th>ATW</th>
<th>PornU</th>
<th>AMMSA</th>
<th>PDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AgInt</td>
<td>.14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIP</td>
<td>.18</td>
<td>.81**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ATW</td>
<td>-.06</td>
<td>.08</td>
<td>.03</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PornU</td>
<td>.47**</td>
<td>-.05</td>
<td>-.13</td>
<td>-.24*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AMMSA</td>
<td>.05</td>
<td>.21**</td>
<td>-.20**</td>
<td>-.35**</td>
<td>.34**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PDS</td>
<td>-.24**</td>
<td>.27*</td>
<td>.31**</td>
<td>.01</td>
<td>-.35**</td>
<td>-.28*</td>
<td></td>
</tr>
</tbody>
</table>

**Table 2.** Intercorrelations between all variables. **Notes:** ** = Correlations are significant at the .01 alpha level, * = Correlations are significant at the .05 alpha level. N = 135-179. **NSP** = Number of Sexual Partners; **AgInt** = Age when weekly Internet use began; **AIP** = Age when Internet pornography use began; **ATW** = Attitudes Toward Women Scale; **AMMSA** = Acceptance of Modern Myths about Sexual Aggression Scale; **PDS** = Pornography Distress Scale; **PornU** = Pornography Usage.

Participants who used more pornography had more positive attitudes toward sexual assault, more negative attitudes toward women, more sexual partners, and were less distressed by a partner's pornography use. Participants who had more positive attitudes toward sexual assault started using the Internet and Internet pornography at a younger age. They also had more negative attitudes...
toward women and used more pornography. Additionally, participants who had more positive attitudes toward sexual assault were less distressed by a partner’s use of pornography. The age at which the participants began using the Internet on a weekly basis was strongly correlated with the age at which participants were first exposed to Internet pornography.

In addition to a correlation procedure, a MANOVA was used to distinguish differences in attitudes toward women and sexual assault, pornography distress, and the number of sexual partners between participants with low levels of pornography use and those with high levels of pornography use. A Wilks’ Lambda criterion was used to evaluate multivariate significance and a Bonferroni correction was used to decrease the chance of a Type I error and to distinguish statistical significance from a trend.

Table 3 displays the multivariate analysis results. Participants who had a lower level of pornography use differed significantly from participants with a high level of pornography use among the measures, $F(3, 131) = 7.80$, $p = .00$. Those who had a high level of pornography use had significantly more sexual partners ($M = 21.15$, $SD = 13.04$) than those who had a low level of pornography use ($M = 4.26$, $SD = 8.86$). Additionally, participants who had a high level of pornography use were less distressed by a partner’s use of pornography ($M = 113.90$, $SD = 44.22$) than participants with a low level of pornography use ($M = 137.72$, $SD = 49.73$). Moreover, those who had a high level of pornography use ($M = 88.63$, $SD = 16.70$) had more positive attitudes toward sexual assault than those who had a low level of pornography use ($M = 76.79$, $SD = 16.93$).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Low Usage</th>
<th>High Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$F$</td>
<td>$M$</td>
</tr>
<tr>
<td>Attitudes Toward Women</td>
<td>2.89</td>
<td>60.75</td>
</tr>
<tr>
<td>Pornography Distress</td>
<td>8.54**</td>
<td>137.72</td>
</tr>
<tr>
<td>Sexual Partners</td>
<td>13.41**</td>
<td>4.26</td>
</tr>
<tr>
<td>Attitudes Toward Sexual Assault</td>
<td>16.65**</td>
<td>76.79</td>
</tr>
</tbody>
</table>

Table 3. Multivariate Analysis of Variance Summary for Pornography Use. Notes: **p = .01. N = 82-111. Attitudes Toward Women was measured by the Attitudes Toward Women Scale. Attitudes Toward Sexual Assault was measured by the Acceptance of Modern Myths about Sexual Aggression Scale. Porn Usage was measured by the Exposure to Sexually Explicit Materials on the Internet Survey. Pornography Distress was measured by the Pornography Distress Scale.

DISCUSSION

As seen in the results, participants who used more pornography had more positive attitudes toward sexual assault, more negative attitudes toward women, more sexual partners, and were less distressed by a partner’s pornography use. Although it cannot be concluded that pornography use
caused these outcomes, this research and other research suggests that pornography is a significant contributor to these outcomes. Moreover, the current research implies that pornography could be negatively impacting people despite their age or gender. That is, even though the sample in the present study was 80% female and the average participant was 21 years old, negative effects were still exhibited. This result suggests that young women, who are repeatedly exposed to pornography, and the degradation and objectification of women that is inherent in it, may be influenced by these themes and, therefore, may develop more negative attitudes toward themselves as individuals and women as a whole.

Finally, a potentially important factor that could lead to a better understanding of results would have been to include the type or genre of pornography used by the participant. According to Donnerstien and Penrod (1987), the aggressive content of pornography is the main contributor to aggression against women. With past research emphasizing a difference in aggression in individuals who use mainstream pornography versus violent types of pornography, it would have been beneficial to collect that data as well, especially since, “results found throughout literature have been generally consistent, such that pornography exposure [regardless of genre] is associated with attitudes and beliefs supportive of sexual aggression” (Kingston et al. 2009, 220).

In many marriages, pornography substitutes for a sex life (Zitzman and Butler 2005), allowing little room for emotional intimacy. Griffiths (2000) argued that, “The anonymity [of Internet pornography] may increase feelings of comfort because there is a decreased ability to look for, and thus detect, signs of insecurity, disapproval, or judgment in facial expression, as would be in typical face-to-face interactions” (544). In other words, there is no emotional intimacy that is practiced or learned from using pornography, because the Self is removed from the experience. Pornography use is mostly a solitary act in which sexual gratification is reached by masturbating to an image, whereas, a mutual sexual experience requires the exchange of verbal and non-verbal communication, emotional intimacy and compromise to reach mutual sexual gratification. Consequently, pornography use is essentially conditioning sexual gratification to be image-based and solitary, instead of intimacy-based and mutual. As a result, pornography use in a marriage can deteriorate the sexual bond between partners. On one hand, the partner who uses pornography is conditioning him/herself to reach sexual gratification alone with an image by repeated exposure to pornography and repeated reward by orgasm, while, on the other hand, trying to attain sexual gratification with a partner who requires communication, trust and intimacy. This dichotomous sexual experience may be the impetus for the breakdown
of the relationship and increased distress by the partner who is not using pornography, but wanting sexual intimacy from the partner who is.

LIMITATIONS AND FUTURE RESEARCH

Several limitations deserve mention. First, generalizability is limited because the average participant in the present study was a 21-year-old female. With research implying that pornography use is more prevalent in males and that there are more negative effects for individuals who are older and in a committed relationship, a different sample could better highlight effects shown in prior research. Therefore, future research should attempt a sample that contains more males, older and married individuals, as well as younger and single individuals. Additionally, the current sample was collegiate, which may imply a cohort effect. With the Internet being used more frequently by adolescents and college students, access to Internet pornography may be more frequent for these groups than for others. Therefore, future research needs to include longitudinal studies to see if there is a decrease in pornography exposure over one’s lifespan. Additionally, future research needs to compare Internet pornography use between generations. With younger generations growing up on the Internet and consequently being exposed to Internet pornography at a young age, the influence of pornography may be more significant for this age group than for an older generation that did not grow up with the Internet and instant access to Internet pornography.

Additionally, there was not a question that asked if the participant was homosexual or exposing themselves to homosexual pornography. Consequently, these results cannot be generalized beyond heterosexuals. Moreover, it is necessary to compare and contrast between themes in heterosexual pornography and homosexual pornography, which may differ in treatment toward women and thus, may gain further knowledge about the influence of pornography on attitudes toward women.

As previously discussed, the present study focused on the individual’s level of distress caused by their current or previous partner’s use of pornography. There was no measurement of the partner’s distress due to the participant’s pornography use. Additionally, there was not a way for the participant to state if they were filling out the *Pornography Distress Scale* based on their current or past relationship. Therefore, future research should allow the participant to make that distinction. Additionally, there should be a question that asks, “If you are filling out this questionnaire based on a previous relationship, did that relationship end because of pornography use?” Moreover, it would be important to ask participants how distressed they are about their own pornography use.
CONCLUSION

Pornography has never been as accessible by and popular with young adults as it is today. The Internet has made pornography use mainstream and commonplace, influencing attitudes about sexuality, women, and relationships. What we need now is a re-conceptualization of harm from repeated exposure to pornography. Past and current research indicate a significant difference between individuals who are exposed repeatedly to pornography and those who are not, in the areas of attitudes toward women and sexual assault, number of sexual partners, and relationship satisfaction. This finding indicates that repeated exposure to pornography is not harmless, and that the cultural acceptance of pornography use as merely entertainment is imprecise. It is clear that more research needs to be done, and more awareness needs to spread about the influence of repeated pornography exposure. However, it is crucial that research not be fueled by morality, religiosity or sexual liberation, as it was in the 1980s (MacKinnon 1985). A new research agenda should concentrate on pornography use as a social, behavioral and health issue in order to fully understand its impact on society and human sexual development.
REFERENCES


African American Boys in Early Childhood Education (Elementary School) and Understanding the Achievement Gap through the Perceptions of Educators

by Laureen Riddick
Faculty Mentor: Dr. Julie Figueroa

ABSTRACT

African American male students are suffering from a severe educational achievement gap. The U.S. Census Bureau has stated that only fifty percent of African American males will graduate high school (2001). Furthermore, African American males are statistically more likely to be incarcerated than to graduate from a four-year university. The researcher is broadly pursuing the question: Nationally, why do the majority of schools continue to struggle with closing the achievement gap for African American males? This research also examines the fact that some schools with a high concentration of African American males, over 15 percent of the student body, have made considerable strides in closing their African American males’ academic disparity. The current research uses interviews with six elementary school educators in a Northern California school district to review the areas of academic success, cultural diversity, social justice, and parent involvement, in order to examine the way one public elementary school has had success in closing the achievement gap for their African American students.

Black males in American society are in trouble. The College Board Advocacy and Policy Center (2010) reports that a force currently exists that is threatening to pull the African American community apart. The United States currently has the highest rates of incarceration in the world, with the rates for African American men at historically high levels, which are considered by many to be in part the result of institutionalized racism (College Board 2010). In media such as film and literature, African American men are often seen as villains, con men, overly aggressive, and embodying violence. In present-day sports, African American men are viewed most often on television as sport athletes leading their teams to a triumphant victory by landing the game-winning, buzzer-beating shot. Moreover, if African American men are not seen on television as athletes, they are heard on the radio releasing their latest hip hop or rap album. Yet, the majority of men are not currently living the lives of basketball phenomenon Kobe Bryant or hip hop mogul Jay-Z (Noguera 2008). The bulk of African American men are neither
superior athletes nor hip hop moguls, nor are they the villains lurking in the night. Nonetheless, African American men are battling against degrading stereotypes. When African American men, college students, and children have to prove themselves and fight against ingrained misconceptions, it is evident that something is especially wrong.

According to Haynes (1993), “all children, in the absence of a debilitating physical or psychological impairment, can learn.” Ethnicity and low socioeconomic status are not common impediments to high achievement; rather the social correlates (poverty, prejudice, insensitivity, low expectations) often diminish the chances of success for some minority children, in particular African American children (Haynes 1993). African American males are considered at a disadvantage academically when compared to their white peers and even compared to African American females. African American males are not born with an academic disadvantage, so at some point in their academic careers something has to occur to create this disproportionate achievement gap.

This research seeks to contribute to the body of knowledge and extend prior research with new theories and analyses about African American male children during early childhood education, with a specific focus on the years correlating to kindergarten through sixth grade. The ideal result is to improve the quality of education given to African American males in early childhood education, which would lead to a higher rate of success throughout their academic career and possibly decrease the rate of incarceration for African American males considerably.

The research will examine one elementary school that has made progress in closing the achievement gap of African American students. This public school, which contains a high percentage of African American students, has managed to overcome pervasive stereotypes, has high test scores, and has parent involvement during a time when other schools in the same school district have not.

Although most African Americans are aware of the importance of education, many still continue to suffer from poor school achievement, school failure, high rates of educational drop out, low college enrollment, over-representation in special education classes, and low standardized tests scores, reflecting an enveloping problem of educational underachievement among African Americans. The current research is guided by the following questions: Currently, what are some of the top issues that confront African American boys in early childhood education? What are the trends and issues that revolve around the discussion of educating African American boys? What are the ways in which schools are set up to engage children from diverse backgrounds?
PURPOSE STATEMENT

The purpose of this research is to add to the current body of knowledge pertaining to African American males in early childhood education. The research attempts to understand, through interviews of current educators at the elementary school level, how one school has managed to make gains in closing the achievement gap at their elementary school, while other schools are still struggling to do so. To this end, the researcher submits the question: How has this particular school managed to make considerable strides in closing their academic achievement gap for African American males? There are numerous studies that document the low achievement of African American males, yet the same cannot be said for the reasons behind the continuing existence of the achievement gap and interventions that can be taken to improve and prevent African American males’ low academic success.

LITERATURE REVIEW

The literature review will first address the following national educational policies that inform practice and that directly inform instruction highlights to academic achievement. Second, the No Child Left Behind Act will be reviewed in conjunction with seeing if its implementation has had the desired outcome. Third, a media article that received national attention for highlighting the academic discrepancies in Tennessee related to the issues that are occurring nationwide will be examined. This article shows that, despite current reforms, there are deeply rooted trends with regards to higher incidents of expulsion and suspension for African American male students. This will also be discussed. Fourth, the roles of parent involvement, testing and assessment, and stereotypes will be explored in relation to the roles these factors play in a child’s overall academic performance and chances of success.

The education of African American males encompasses three influential dynamics: academic success, cultural diversity, and recognition of social justice. The strong representation of all three of these dynamics has been shown to yield positive results and without the strength of one, the other two dynamics struggle to compensate for the inadequacy. The foundation for the framework of these dynamics is strong parental involvement.

The researcher will attempt to answer the question: Nationally, why does the achievement gap still exist for African American males? The researcher will review the literature pertaining to academic success in terms of testing and assessment and the alarming educational gap between African American males and white students. Through the examination of academic success, the researcher will adhere to the notion of achievement ideology and the presence of this theory in the success of African American males. The notion of cultural
diversity also will be explored from the perspective of the educator and the role minority educators play in educating minority students, particularly African American males. Furthermore, social justice will be explored in respect to the higher rates of suspensions and expulsions of African American males, and the possibility that this trend influences the higher rate of incarceration for this group. Finally, parent involvement, the most critical aspect of a child’s academic success, will be addressed. Also discussed is the evidence suggesting that when academic success, cultural diversity, recognition of social justice, and strong parent involvement are connected in the life of African American children, positive results are produced.

According to a report from the United States Census Bureau (2001), African Americans currently comprise nearly 13 percent of the total U.S. population. Over one-half of all African Americans in the United States live in large urban areas, and more than 35 percent of African Americans under age 18 live in poverty (U.S. Census Bureau 2001). African American males have a 52 percent chance of dropping out of high school. In some cities, the rate is as high as 70 percent. While African American males currently make up 17 percent of the total school population, they account for 32 percent of the suspensions and 30 percent of all expulsions (U.S. Census Bureau 1999). African American male teens are placed in remedial or special education classes at triple the rate of their white counterparts, and they are underrepresented in gifted and honors classes. These statistical figures suggest that African Americans are over-represented among the poor, urban school-aged population. Because of environmental factors stemming from living in poverty (e.g., unemployment and exposure to crime and violence), researchers and educators have often applied the term “at risk” in reference to urban African American adolescents. Such a classification, however, could compromise the academic development of students because of the assumption that they are predestined to fail at academic pursuits or achievements. To combat this statistical inequity, the No Child Left Behind Act was put into effect.

**No Child Left Behind Act**

The No Child Left Behind Act was signed into law by President Bush in January of 2002. The No Child Left Behind Act has expanded the federal role in education and become a focal point of education policy. Coming at a time of extensive public concern about the state of education, the legislation set in place requirements that reach into nearly every public school in America, taking particular aim at improving the educational group of disadvantaged students. The opening passage of the No Child Left Behind Act gives a suggestion of its purpose, “An act to close the achievement gap
with accountability, flexibility, and choice so that no child is left behind.”
At the core of the No Child Left Behind Act are a number of measures
designed to drive broad gains in student achievement and to hold states and
schools more accountable for student progress. These measures represent
significant changes to the educational landscape (U.S. Department of
Education 2001). In an effort to close the gap, parents can request school
vouchers for their children to transfer from failing schools into better-
performing schools and federal funds can be withheld if schools do not
make suitable progress toward increasing the test scores of all children. This
has left a substantial amount of pressure on principals and teachers to get
test scores up or possibly risk having federal funding withheld. Even though
The No Child Left Behind Act proclaims to be a step in the right direction,
a more decisive plan needs to be created for African American male students
(Graves 2010).

Academic Success
To comply with the No Child Left Behind Act, academic success is the
largest stressor for principals, teachers, and the state. African American
children begin kindergarten with fewer reading skills than white children,
even if their parents have equal years of schooling (Ferguson 2003). The
underachievement of African American males starts when they first begin
formal schooling. According to the National Center of Education Statistics
(2010), African American males have the lowest performance on standardized
assessments of academic achievement. According to Graves (2010),
contributing factors to African American males’ low academic performance
are due over-representation in special education classes, low teacher
expectations, and association with low-achieving peers (Graves 2010).

Contrary to the common belief that most urban African American
adolescents struggle academically, 1,320 high-achieving minorities were
identified in high-poverty schools in which students’ standardized test scores
were in the top third of all schools in their state at respective grade levels.
Thus, the relationship between the group of environmental stressors urban
African American adolescents face and their academic performance is neither
simple nor concrete (Jerald 2001).

The academic achievement gap, particularly the mathematics achievement
gap, between black students and their white counterparts has been well
documented. Furthermore, a recent Education Trust study using National
Assessment of Education Progress (NAEP) data documented that U.S.
students were improving in their academic performance; it also noted that the
achievement gap between black and white students related to mathematics,
was increasing and that educators do not fully understand the reason.
It must be mentioned that African American males have achieved numerous gains in regards to their educational performance but national data are still clear indicators of the negatives that are still prevalent including the drop-out rate, suspensions, and expulsions. Their enrollment in post-secondary institutions such as colleges and universities continues to be a much lower percentage when compared to their peers (Garibaldi 2009). The individuals often left to fight for the education of the children are the educators themselves. However, one must consider what occurs in their interactions with students when educators are not trained to recognize the cultural differences in members of other ethnic/minority groups such as African American males.

Cultural Diversity
The role of educator encompasses so much more than test scores and complying with federal standards. It is a role that requires individuals to teach children about the world and, ultimately, themselves. This is made difficult for African American male students and others who see few role models who look like them in the ranks of teachers on school campuses. Increasingly, public school teachers are predominately white and female, while the numbers of African American teachers is decreasing (Ladson-Billings 2001). With the majority of teachers being white and female, it seems that the need for well-trained, culturally sensitive teachers who can understand the needs of diverse students is prevalent.

Since the *Brown v. Topeka Board of Education* case in 1954, there has been a 66- percent decline in African American teachers. Currently, 17 percent of all students in elementary school are African American, yet only seven percent of teachers are African American. One percent of current educators are African American males with the majority of them being employed in middle schools and high schools (Roach 2010). It would not be uncommon for an African American male student to go from kindergarten to twelfth grade without seeing an African American male teacher.

Many African American college graduates who decide to enter teaching may face an unwelcoming environment, having experienced devaluation in the classroom. Delpit (1995) highlights teacher education programs and the environments therein as a significant reason for African Americans and other minority student teachers desiring to depart from the profession (Delpit 1995). Prospective teachers do not easily relinquish their beliefs, which developed from their own cultural and educational experience (Ladson-Billings 2001). African American student teachers often experience degradation of self-worth and of personal knowledge in the classroom (Delpit 1995). Nonetheless, for a student to make it into the classroom...
is beneficial, but it seems that, for African Americans, spending adequate amount of time in the classroom has become an alarming challenge.

**Social Justice**

The factors surrounding the education of African American males are not simple or absolute, yet it is safe to assume more culturally aware classrooms that are equipped to handle the diverse needs of African American males are a necessity. Furthermore, some researchers have assumed that high grades, school attendance, and an absence of conduct issues are representative of psychological well-being in urban African American students. However, for some urban African American youth, engaging in such positive behaviors may result in bullying, ridicule, social isolation, reduced peer and social self-esteem, and feelings of community and cultural betrayal (Constantine et al. 1998; Steward et al. 1998; Wilson, Cooke, and Arrington 1997).

Nashville, Tennessee recently received nationwide media attention for an alarming trend highlighted in a Web article by John Mays, entitled *Nashville Middle School Suspends 50 Percent of Black Boys* (Blackvoices, 3 June 2010). The African American male students’ plight received national attention in this article when it was brought to light that Nashville middle schools were suspending 50 percent of their black boys. The article’s author, John Mays (2010) observed:

> It’s tough to be a black boy in Nashville, Tenn. Nine middle schools there have suspended half of their black male students at some point, more often than any other group. One school suspended 58 percent of its black male students, but just 10 percent of its white male students. Another suspended 58 percent of black boys but only 13 percent of white boys.

Percentages of suspensions this high at the middle-school level cause school-aged boys to miss valuable classroom information that could ultimately prepare them for tests, which could significantly impact their grades. Without the proper foundation for high school, they may test into remedial classes and fall further behind in trying to meet grade-level standards (Blackvoices 2010).

In Nashville, Tennessee this disparity is not only occurring at the middle-school level, it is occurring at local elementary schools too. This is not to state that some of the suspensions were not valid, the article points out that the inequality and high rate of suspensions cannot go without being further examined by school boards (Blackvoices 2010):
On the elementary school level, six schools suspended only black males, even though four of those schools have a mixed black and white population. In Tennessee, black kids are four times more likely to be suspended than other students. And the problem is not unique to Nashville. Nationally, black kids are suspended three times more often than whites.

This trend is not going unnoticed by the public and one attorney in particular, Larry Woods, has taken an active stance. He is suing the Nashville school district for inadequate textbooks and resources and wants to draw attention to the threat to minority students at these schools. This sort of treatment at such a young age only conditions these minority students further into negative behaviors and to expect poor treatment from others. Woods (Blackvoices 2010) stated:

The practice of treating black male students more harshly for behavioral problems is the first step for the school to prison pipeline, the trend of dealing with our children as criminals as opposed to the still developing, potential-filled young people that they are.

The American Civil Liberties Union (ACLU) has even gone so far as to question the motives behind these schools pushing out their minority students. Because of the No Child Left Behind Act schools are feeling the pressure to drive out low-performing students in the hopes of increasing test scores (Blackvoices 2010). The article (Blackvoices 2010) cites ACLU findings that:

One study found that schools meted out longer suspensions to students who performed poorly in standardized tests than to high-performing students for similar offenses. This ‘punishment gap’ grew substantially during the period of time when standardized tests were administered, indicating that schools may use ‘selective discipline’ to keep low-performing students out of school during testing days.

The call to action is to show teachers ways to deal with a variety of students. They must learn to deal with students equally regardless of gender or ethnic diversity. Zero tolerance policies alone are ineffective and counterproductive. The single largest factor in African American males’ academic future comes from their foundation. One cannot develop academic success, cultural diversity, or social justice without the foundational core of parent involvement.
Parent Involvement

Parent involvement is directly linked to positive school outcomes. The more active a role the parent takes in the child’s education, the greater the outcome of positive success for that child. Graves states that parent involvement is complex and includes homework assistance, school participation, and active supervision (Graves 2010).

According to Jane Lawler Dye, in her U.S. Census Bureau report (2006) about father involvement and child well-being, there was a positive association between the involvement of the father in a child’s life and the overall welfare of that particular child. Furthermore, Lawler Dye found that for younger children, consistent father involvement can lead to better behavior, psychological outcomes, and cognitive development. Yet for African American children in Lawler Dye’s study (2006), only 69 percent of children actually ate dinner with their fathers compared to 81 percent of Hispanic children. In conclusion, Lawler Dye’s findings suggest that father involvement was directly related to some aspects of child welfare such as disciplinary action in school; children who spent a significant amount of time with their fathers were less likely to have experienced disciplinary actions at school such as suspensions and expulsions (Lawler Dye 2006).

Sanders found that adolescents living in a single-parent household and below the poverty level were likely to question the relationship between educational achievement and economic progress (1998). Considering the over-representation of African Americans in this demographic cluster (U.S. Census Bureau 1999; 2001; 2002), urban school counselors frequently may encounter African American students who have similar experiences. These could include personal, family, and community experiences that may have more tangible and concrete meaning to these adolescents and, therefore, more influence on their academic and career-directed behaviors than conceptual teachings. Moreover, many urban African American adolescents may place higher priority on non-academic life responsibilities, such as work, family, and peer responsibilities, than on academic responsibilities (Boveja 1998).

METHODOLOGY

The researcher will use qualitative methods to understand and analyze the perspectives of teachers with regard to African American males. Through various texts, articles, and journals the researcher will gain an in-depth understanding of the current research with regard to African American males and their academics. The researcher will show the differences taking place at one elementary school and discuss how this school is making strides in closing the academic achievement gap for its African American male students.
Participants
The participants of the study were obtained from one elementary school in the Sacramento Unified School District. The principal and five teachers were selected, with one teacher meeting the qualifications of being a special-education teacher. A male teacher was encouraged to participate in the study to increase gender perspectives. Also, non-credentialed adults who come in contact with children on a daily basis were also selected from the after-school program to participate in the study.

Interview
To capture the perspectives of some of today’s current educators, the study used interviews with four elementary school teachers (including a special-education teacher), one after-school care provider, and a school principal. The subjects were recruited through known acquaintances. All the participants were current employees at a particular elementary school in the Sacramento region. Participants were notified of the study through flyers that were placed in their on-campus mailboxes. The teachers responded to the flyer and were selected based on the following criteria. They were required to be elementary school teachers (kindergarten through sixth grade). One of the participants had to be a male teacher. One of the participants had to be a special-education teacher. In addition to these requirements, the school’s principal and the after-school care provider were highly encouraged to participate in the study to increase the spectrum of data collected.

The interviewing technique was used to facilitate contact and establish a trusting relationship with the participants of this study. A consent form was signed after participants agreed to be interviewed and the interviews were audio recorded. The participants’ names were kept confidential.

The interview questions varied from closed- to open-ended. The variations in questions attempted to capture the enriched opportunity that presents itself in interviewing participants. The questions covered five topics: Testing/Assessment, Parent Involvement, Stereotypes, Teacher Work and Diversity, and Teacher Engagement. Each of the interviews lasted about one hour, and all the interviews were recorded to ensure accuracy of quotes. The interviewees were offered a copy of the recorded tape, and after the interviews were transcribed the recordings were destroyed. Participants were informed that privacy and confidentiality were of the utmost importance and that no information would be shared with their fellow co-workers at the elementary school.
DISCUSSION

The researcher will refer to the selected elementary as “Golden State Elementary School.” At this school, the researcher interviewed kindergarten, first and sixth grade, computer lab, and special-education teachers. The school principal and one after-school care provider were also interviewed. Each interview was conducted individually and all names were changed to protect participants’ privacy. The interview questions covered background, testing and assessment, stereotypes, parent involvement, and diversity.

Golden State Elementary

Golden State Elementary is located in the Sacramento Unified School District. It is a public elementary school, serving grades preschool through sixth grade. The school is striving to maintain its high attendance in conjunction with its success on the statewide test, the Standardized Testing and Reporting (STAR) program. Golden State Elementary staff believe in promoting diversity in the classroom and that every student is capable of achieving high standards regardless of their racial background. The teachers get together for grade-level meetings in which they discuss the aforementioned topics, including the diversity balance in the classroom. This school is said to be “the opposite of the norm” by the teachers who currently work at the school, all of whom average between 10 and 25 years of teaching experience. The state average for elementary teacher experience is only 11 years. Despite the closure of schools around Golden State Elementary and an increase in its new student enrollment, the school has managed to keep its average classroom size to 21 students. The state’s average classroom size is currently 25 students (CA Department of Education 2008).

Teacher Background

Mr. Ferreter has been teaching elementary school for 25 years. He has taught kindergarten for 15 years and has taught the 5th grade for 10 years. This current academic school year, he has no African American males among the 12 male students in his class, yet, over the years he has had previous teaching experience with African American males. His current teacher-to-student ratio is 1 teacher for a class of 21 students. The Sacramento Unified School District is currently considering increasing the teacher-to-student ratio to 1 teacher for a class of 30 students.

Mrs. Woodward is celebrating her 20th year of teaching 1st grade. Her current teacher-to-student ratio is 1 teacher for a class size of 25 students. She currently has 4 African American males in her class, which includes 1 biracial student whose mother is Caucasian and whose father is African American.
Ms. Sunahara has been teaching elementary school going on her 7th academic school year. Her current teacher-to-student ratio is 1 teacher for every 28 students. She is highly concerned about the possibility of the Sacramento Unified School District increasing those numbers. She currently has 1 African American male out of the 15 males in her class, but in the previous years she has had a larger number.

Mr. Frankenburger has been teaching elementary school for 13 years, and before he started working as the media and visual instructor, he had taught the 4th grade. Classes currently rotate into the computer lab on a daily basis based on a schedule. He works with the entire school population, which is close to 600 students.

Ms. Chapin has been working with children for over 10 years as both a daycare provider and an after-school-care site director for the City of Sacramento. In this position, she is responsible for over 90 children after school until 6 p.m. and also has 5 staff working under her to support the program and the children. Each staff member has a cluster of children to whom they are assigned. The staff-to-student ratio is 1 to 20, with 1 staff member and Ms. Chapin not being counted in this ratio.

Mrs. Moore has been in charge of the Resource Specialist Program at Golden State Elementary for 11 years. She is currently operating her program as a learning center, which means she serves those students who have been identified with special needs, as well as those students who need additional curriculum support.

Dr. Eister is currently the principal at Golden State Elementary and has been in this position for 6 years. Before she became principal, Dr. Eister was a 4th grade teacher for 20 years in the Sacramento Unified School District.

FINDINGS
The researcher’s findings yield a strong example of how the three dimensions of academic success, cultural diversity, and social justice affect African American males’ academic performance. The role of parent involvement as a foundation for these three dimensions was a reoccurring theme mentioned throughout the teacher interviews. While looking at the techniques one school has used to close its academic achievement gap, the researcher considered the broad question: Nationally, why does the achievement gap still exist?

Academic Success
The STAR Program measures performance on the California Achievement Test and the California Content Standards Test. The STAR Program is the cornerstone of the California Public Schools Accountability Act of 1999.
The primary goal of the PSAA is to help schools improve the academic achievement of all students. Each spring, California students in grades 2 through 11 must take a series of tests that comprise the state’s STAR Program. These tests must be completed 10 days before or after 85% of the school year has passed. The California Standards Tests (CSTs) are designed to match the state’s rigorous academic content standards for each grade. Grades 2 through 8 tests cover mathematics and English/language arts (which includes writing in grades 4 and 7). Except for the writing, all test questions are multiple-choice. California’s school accountability system was originally based solely on scores from a previous test called the CAT/6. Through the Academic Performance Index (API), the scores drove the allocation of millions of dollars in intervention and award programs, depending on the health of the state’s budget (California Department of Education 2009).

Ms. Sunahara, a Golden State Elementary teacher shared how she and other teachers encourage academics success in their students, “We use multiple choices on assessments to prepare the students for the STAR Test” (2010). Dr. Eister (2010), the school’s principal, stated that,

“We reward our students based on attendance and performance, how hard they try, on the STAR Test. We give them a barbeque and we also do a raffle. This year a fourth grade girl won a camera from the raffle. We want our students to take pride and do well on this statewide test. We have consistently had high scores over the years.”

Golden State Elementary has demonstrated through an assortment of awards that they are dedicated to every student succeeding regardless of race or ethnicity. Dr. Eister stated that over the past 10 years, ranging from the 2001 academic school year to the current one, Golden State Elementary has received over 30 awards. Dr. Eister (2010) added,

“As a principal, joy comes from seeing the achievements of my students. We have been fortunate enough to be the recipients of numerous awards, a few of them being: No Child Left Behind National Blue Ribbon Award School, Distinguished School Award, Title 1 Academic Achievement Award School, and being identified by EDEquity Inc. as a school in the top 20% of all California schools in creating a culturally relevant and relational learning environment to foster academic excellence for African American students.”

Teachers at Golden State Elementary are in agreement that their school is set apart from others. Other schools in the district are not scoring as high on the STAR Test as Golden State Elementary School. Part of their success
many come from their perspective that their minority students are just as academically strong as other racial groups. Ms. Sunahara (2010) observed,

\[
\text{Looking at my [students’] scores, it has been pretty diverse in terms of male-female ratio and [ethnicity]. A lot of my kids are of mixed race. I have African American, Mexican, Russian, and some are British. They are a very mixed, diverse student [body] that is at the top and score high on the STAR Test.}
\]

Cultural Diversity

Golden State Elementary is ethnically diverse with students ranging from African American to Latino and Russian. Teachers tell stories of students attending this school from Portugal who speak limited English. Heritage is currently part of the curriculum for each grade level. The school has taken an active role in modifying test and assessment questions to make them more welcoming to students of different backgrounds. Mr. Frankenburger (2010) stated,

\[
\text{If you give a word problem in math you always say ‘Bobby and Susie.’ Yet, in my adult class at night, I find that I use a diverse set of names, [which is] something I picked up from the elementary school in terms of being more diverse. Why does it always have to be ‘Bobby and Susie’? Why can’t it be ‘Marelena and Sheron’?}
\]

Ms. Sunahara (2010) shared the following about cultural diversity at the school,

\[
\text{We have a unit in each grade dedicated to heritage. We want the kids to recognize that they do not all look alike and we want the kids to know that even if we all do not look the same on the outside, we are all the same on the inside. We all have feelings, think, and are here to be educated.}
\]

Social Justice

Rules and procedures are enforced at Golden State Elementary. Students are highly rewarded for doing well, but when rules are broken teachers, school officials and the principal take it very seriously. Although African American males typically are one of the most frequently suspended racial groups nationally, this is not the case at Golden State Elementary. Miss Chapin (2010) observed, “The children need consistency and boundaries. They need to know that these rules are here for them so they can have a safe and fun environment to come to on a daily basis.” Ms. Sunahara added, “I don’t see many African American males getting in trouble because the parents have been involved. I have more issues with my Russian boys” (2010).
Comparing Golden State Elementary & Sacramento Unified School District

Of the 24,280 males enrolled in the Sacramento Unified School District, 2,330 of them were suspended in 2006 (Figure 1), with over 800 of those suspensions being African American males. At Golden State Elementary, a school located in the Sacramento Unified School District, a total of 15 students were suspended in the same school year (Figure 2). Five of these students were African American and five were white.

![Sacramento Unified School District](image1)

**Figure 1.** Rate of student suspensions in 2006, Sacramento Unified School District (Source: U.S. Department of Education, Civil Right’s Data Collection 2010)

![Golden State Elementary](image2)

**Figure 2.** Rate of student suspensions in 2006, Golden State Elementary (Source: U.S. Department of Education, Civil Right’s Data Collection 2010)

Another cause for concern can be African American males and their association with special education programs. African American males are over-represented in special education programs and under-represented in gifted or honors programs. This is not the case at Golden State Elementary. Mrs. Moore operates the special education program as a learning center. The students that need special education are not separated from their peers. They spend a certain allotment of the day with her but the majority of the time in the classroom. Her goal is to see every child at or above grade level, regardless of the situation. Mrs. Moore (2010) observed,
I do have African American males that I work with, but they are not the majority; I’m proud to say that our school has made considerable efforts to keep minorities at or above grade level. This is not to say that I don’t come across African American males that do not need the extra support because I do. But most frequently, we are dealing with the Hispanic population and the language barrier, but we are proud to say that we have two interpreters available.

Parent Involvement

Parent involvement is the foundation of the three dimensions discussed in this study. Part of Golden State Elementary’s success can be attributed to the involvement of the parents. Because of state budget cuts, Golden State Elementary has come to lean very heavily on parents for support and funding. Currently, Golden State Elementary has a active Parent Teacher Organization (PTO) that has raised money for various student activities that, normally, would have been cut due to a lack of state funding. The Gifted and Talented Education (GATE) program that operates after school to academically challenge students is an example. The school hosts a once-a-month event such as math night, science night or even art night that both parents and students may attend and receive a homework pass when they do. Miss Chapin (2010) stated,

I enjoy helping the school out with their family nights’ after school. The after-school children love setting these up and getting to see all the fun projects before everyone else. I feel like I’m giving back to these children. They are not out on the streets or latchkey kids. They are in a safe and fun environment in my program.

The Golden State Elementary School Web site has a call to action to parents from Mrs. Wallace (2010), the president of the PTO, stating the benefits of getting involved in their children’s schooling, including,

Research has shown that when a family is involved in a child’s educational experience, that child will earn better grades, have better social skills and will have a more positive attitude toward school.

Parents have responded well by taking an active role in their children’s education, African American parents, in particular, are responding to the call. There are numerous African American parents on the PTO board and they actively attend parent-teacher conferences, school events and activities. Ms. Sunahara (2010) shared this observation about the school’s high level of parent involvement,
In my past experience, since I have had a lot more African American male students in my class, they score very high and that comes from parent support and the relationship I have with them in the classroom. But I think we are the flip or opposite of what people think as the norm, as far as African American males go, because here they are more on the high side academically. African American parents, in my opinion, have been very involved. It doesn’t matter what race they are, I think involvement should be from everybody. From my experiences, the parents have been involved and that is why they [the students] are so successful.

The importance of parent involvement cannot be stressed enough. Teachers at Golden State Elementary stated that parents have the students for the first five years of life, and what they teach their children critically affects the way the students view school. Ultimately, if the parents have a strong concern for their child’s schooling that child statistically will perform better academically. Mr. Ferreter (2010) observed,

I was lucky if I was able to get two or three parents to attend parent conferences or back-to-school night. At [Golden State Elementary], I had every parent attend except one, and they called apologizing and set up a time to meet.

When a child attends school, what the parent has put into them is either a supportive uplifting factor to their education or it is a hindrance, and something the teacher or educator must fight against. In the end, what the parent has instilled in a child may overcome anything the teacher tries to go against.

CONCLUSION

The researcher concludes that Golden State Elementary closed the achievement gap by meeting the needs of its African American male (and female) students. The school encompassed academic success; the students attend a school where high academic achievement was expected and rewarded, thus making African American males strive harder to achieve that level because it was expected. Golden State Elementary did not experience a disproportionate gap in terms of social justice. The school had a total of 15 suspensions for the entire 2006 school year, according to the U.S. Department of Education (2006), and African American males received only five of those suspensions (see Figures 1 and 2). Moreover, its African American students participated in a culturally diverse campus. Students embodied numerous racial and cultural backgrounds, and, from the opinions of the educators, developed the ability to be color-blind to peers’ racial
differences in addition to learning tolerance. Yet, the groundwork for success had been laid at Golden State Elementary because of parent involvement. Parents are choosing to play an active role instead of relying on the teachers to be the only contributing factor in their child’s education.

The researcher concludes that the complex nature of educating the African American male is not done being explored by researchers. As stated by the College Board (2010), a dichotomy exists in our nation’s system of public education where some schools foster high academic achievement and have dynamic and qualified teachers, while other schools in the same public school education system face major problems. These problems include unprepared teachers, astonishingly low academic achievement, and low expectations for students to graduate from high school (College Board 2010).

Although the fact still remains that African American males are more likely to be behind prison walls than behind the walls of a four-year university, something has to be done at the elementary school level to change this. America is losing its youth to a factor known as the “pipeline to prison,” a mentality among many young males that shuns high academic achievement and directs them to display their masculinity through activities that are stereotypically cool and macho, which may include the recruitment of young males of a low-socioeconomic status into a lifestyle involving gang affiliation, drug selling, and, ultimately, over-representation in prison (College Board 2010).

Golden State Elementary is an example of how the public school system can alter the course of African American males’ academic and life experiences. They are succeeding at closing the academic achievement gap for this group and others by fostering academic success, recognizing cultural diversity, and employing social justice—all of which are bolstered by active parent involvement.
REFERENCES


The Government and New Media: The White House’s Use of Twitter

by Travis A. Sanchez
Faculty Mentor: Dr. S. David Zuckerman

ABSTRACT

New media are rapidly replacing traditional modes of communication. Social networking sites have found an almost immediate domination among other forms of communication. Even the U.S. government has pages on these sites. This study analyzes how the White House uses new media by examining the tweets, or posts, made by the White House on Twitter, a micro-blogging social networking site. A content analysis of 463 posts spanning a three-month period revealed themes involving policy, events, and characters. An abundance of links, typically at least one per post, shows that the White House uses Twitter to post ‘headlines.’

The decade between 2000 and 2010 brought a dramatic evolution in the nature of communication for people all around the world. The swift rise and widespread use of new media changed how individuals and groups interact. This progression of communication media rapidly transformed from email to instant messaging to text messaging to blogging and on into social networking sites. Information exchange became ubiquitous like never before. Typing a simple keyword into an online search engine produces a cornucopia of knowledge available to all people with Internet access. Whereas, before, most media were separated, new media are now interconnected and have integrated the remaining benefits of traditional media as well. McLuhan (1964) said, “a new medium is never an addition to an old one, nor does it leave the old one in peace. It never ceases to oppress the older media until it finds new shapes and positions for them” (158). This phenomenon is certainly the disposition of new media. The capabilities and potential of new media seem never-ending. Now, in the time of their infancy, there is the greatest need to understand these new media.

Communication between leaders and the public is an essential element of society. In the United States, this communication includes presidential addresses and a variety of other messages concerning laws and court decisions, and information on social issues and foreign affairs. Initially, these
messages were relayed through public speeches, newspapers, and other traditional media. However, presidents have used whatever new technologies were available to them at the time. Calvin Coolidge was the first president to address the nation on radio in 1924. Franklin D. Roosevelt was the first president to appear on television in 1939, and Harry S. Truman was the first president to give a presidential address on television in 1947. Bill Clinton was the first president to create an official government Web page on the Internet in 2000 (originally FirstGov.gov until 2007 when the site changed its name to USA.gov). The U.S. government continues to utilize these media today.

Barack Obama was the first president to use social networking sites on the Internet in 2009. Some of these sites include Facebook, MySpace, YouTube, Flickr, and Twitter. A number of federal agencies, including the White House, also began using these sites following the president’s lead. The Obama administration’s plan for new technology was to bring the government into the 21st century by taking advantage of modern innovations, especially with new media.

Social networking sites are designed to facilitate communication between individuals and groups who share common interests. Usage of these sites is usually free and available on a global scale. Users must start an account in which a profile is created and the opportunity for various levels of self-disclosure is given. Users then create networks to communicate with other users, typically through text, images, video posts, and blogging. A “blog,” which is a condensed term for “web log,” is a narrative on any topic that is posted online, typically on a social networking site or in a forum. Blogs may also contain images or links. A “link” is an active line of text or an image that connects a user to another Web page when clicked.

Twitter is a social networking site that is designed for microblogging, created in 2006 by Jack Dorsey. The site allows users to post messages (or tweets) of up to 140 characters of text at a time, hence the term “microblogging.” Networks are created by either being a follower of another user or by being followed by another user. Hashtags, indicated by a “#” sign and a phrase indicating the specific topic, are used as links to a collection of tweets that facilitate discussion on a sole topic (Farhi 2009). An example of a hashtag is “#ff,” which stands for “follow friday.” This is a hashtag where any user can suggest to others users who to follow by providing a list of @usernames. The collection of tweets is formed by presenting each tweet that has the same hashtag posted within it. Also, “@username,” which is an account user’s profile name following the “@” sign, is often placed within tweets to connect that user to the message or as a topical reference. Shortened URLs, the address of a Web page, are also placed in many tweets. This feature is a way to place a Web page link within the post without using
up much of the post’s limited text space. This paper will discuss how the government uses new media by looking at the White House uses its profile on the social networking site Twitter.

LITERATURE REVIEW

Few research studies have been conducted on the topic of online political communication because of the newness of social networking sites and other online fora. Additionally, how political commentators create new communication techniques with innovative new media is still in an explorative phase with few published works. However, there are some recent studies that reflect the current shift toward the new media paradigm of political communication in an online setting.

According to Mutz and Martin (2001), “as the number of potential news sources multiply, consumers must choose among them, and that exercise of choice may lead to less diversity of political exposure” (13). In turn, the popularization of the Internet has increased the number of information sources available, and allowed a wide diversity of thought to be expressed, including political commentary, by anyone with access. Furthermore, Stroud (2008) found that “different media outlets may transmit different perspectives to different audiences” (360). Audiences of traditional media sources may have a different demographic than users of new media. In addition to changes in information sources, there are also changes in media to target audiences more narrowly.

According to Holbert and Geidner (2009), “candidates and public policy issues are now promoted as representative of some element of a specific lifestyle” (355). Ancu and Cozma (2009) show “that MySpace candidate profiles mainly gratify visitors’ needs for social interaction with other candidate supporters, as well as for information seeking and entertainment needs” (576). Politicians’ online profiles are designed to attract a person’s lifestyle, but supporters use the space to have discussions with and listen to other supporters. As a result, this process increases the constituents’ self-efficacy as they are also drawn to sources that reflect the same beliefs and where they are able to interact with candidates and other supporters.

Kaye and Johnson (2002) stated that, “like talk radio and call-in television, the Internet is thought to boost self-efficacy because it allows viewers or listeners the opportunity to hear individuals like themselves articulate their political views” (67). Most people are attracted to others who share the same opinions, and their meeting spots are still located around the opinion leaders and political candidates they support. As media took a leap from traditional to new, the sources people consult changed. Whereas television and radio
news shows were once primary sources of information, now anyone with an Internet connection can post a viewpoint and connect with others who share their viewpoint.

Kaye and Johnson (2002) noted that, “the Internet provides a wealth of political information, including a considerable amount of material that has not been filtered, edited, or scrutinized by traditional media” (66). Furthermore, Stroud (2008) discovered that, “political beliefs play an important role in determining where people turn for political information” (360). Research has shown how the news media are affected by these new conditions, how politicians are gaining more attention and support through new media, and how supporters use new media to communicate with like-minded people through the sites of the candidates they support. Yet, there is still one enormous information source that has been left out: the government, especially the federal government, and even more specifically, the executive branch. Since studies have shown that peoples’ interest in media has altered the scene of information flow, one could infer that the public would react to government presence in online media. There remains the intriguing question: How the executive branch of the government uses new media? This paper will explore this question by analyzing how the White House uses the social networking site Twitter.

METHODOLOGY

Content analysis was used to identify patterns of usage by looking at the White House’s posts on Twitter and by organizing them into different data categories. “Content analysis” is any technique for making inferences by systematically and objectively identifying specified characteristics or messages (Holisti 1968, quoted by Twycross and Shields 2008). Additionally, content analysis is a method of analyzing written, verbal, or visual communication messages (Cole 1988, quoted by Elo and Kynga 2007). Recently, Fullwood, Sheehan, and Nicholls (2009) used this method to conduct research on the style, format, and expression of MySpace blogs available in the public domain. Their results show that content analysis is an applicable method to study social networking sites. The present research used content analysis to focus on the Twitter posts of the White House.

Purposive sampling was used to collect all of the tweets, or posts, in the most recent three months. This time frame was chosen because of the need to find patterns throughout the posts, and three months was identified by the researcher as sufficient time for patterns of use to develop. This sample consisted of 463 tweets. The sampling technique used was appropriate because the most recent White House posts revealed patterns of usage with
more accuracy than older posts, given that, at the time of sampling, the White House’s Twitter account was approximately 1.5 years old. A codebook was used for analysis to categorize and measure the content of each of the posts in this sample. The researcher initially viewed individual posts so as to categorize them according to a few selected elements. A later analysis placed each post from each category into further defined sub-categories.

The first organizing element was themes identified throughout the posts. These units of analysis included policy-oriented tweets and event-oriented tweets. “Policy-oriented posts” included health care, Wall Street reforms, nuclear issues (including the New START Treaty), and economic issues, which consisted of employment and jobs, the Recovery Act, and more. “Events-oriented posts” focused on crisis situations, holidays and national days, national announcements and events, and international announcements and events. Of course, some tweets contain an overlap of policy- and event-oriented issues. For example, healthcare was discussed much more dominantly as a policy-oriented topic, though there were event-oriented tweets on health care as well. Whichever side the issue in the tweet was more dominantly focused on (policy or event) throughout the entire sample would determine how each individual tweet was categorized. Next, the researcher identified characters, such as President Barack Obama, Vice President Joe Biden, White House Press Secretary Robert Gibbs, First Lady Michelle Obama, and an assortment of other people. Even a dog has been identified as a character. Lastly, links in the posts, including hashtags, @usernames, shortened URLs, and Web sites were sorted.

RESULTS

The content analysis provided a series of results. The first unit of analysis was Themes. Each tweet was placed in either the policy-oriented category or the event-oriented category but not both (Appendix A). The policy-oriented category contained 220 tweets and the policy-oriented category contained 243 tweets. The policy-oriented category was separated into four subcategories. The first subcategory was healthcare and encompassed 141 tweets. Next, the economic-issue subcategory included 46 tweets. Third, the nuclear-issues subcategory contained 18 tweets. Nine of these tweets regarded the New START Treaty. Finally, the Wall Street Reform subcategory earned 15 tweets.

Next, the event-oriented category was analyzed and broken down into four distinct subcategories. The national announcements and events subcategory was the most prominent and held 166 of this category’s tweets. Next, the international announcements and events and the emergency situations subcategories held 29 tweets each. The crisis situations subcategory was divided
into five segments. First, the BP oil spill in the Gulf collected 12 tweets. The flooding in Tennessee and the Southwest received five tweets total, as did the West Virginia mine collapse. The earthquake in Chile and the threat of a tsunami received four tweets. The Haiti earthquake incident earned three tweets. Finally, the holiday and national days subcategory gained 19 tweets.

The second unit of analysis was Characters. Each person mentioned anywhere in the tweet was recorded and categorized. There were tweets that did not mention any person, while some tweets contained remarks about multiple individuals. Recording was based on frequency of reference to each person, not on whether a tweet mentioned a character or not. A person was recorded if either that person’s name or title was mentioned, or if there was a direct suggestion of that person. Direct suggestions included either remarks made about a person who is significant to the meaning of the message or follow-ups about a character from a previous post. A total of 76 characters were reported in the sample. These characters accumulated 359 appearances. Of them, President Obama emerged with the greatest number of appearances at 168. Next in line, First Lady Michelle Obama appeared in 18 tweets. Third, Dan Pfeiffer, the White House Communications Director, appeared in 12 tweets. Vice President Joe Biden and White House Press Secretary Robert Gibbs were both mentioned nine times. Nancy-Ann Deparle, Director of the White House Office of Health Reform, and Kathleen Sebelius, Secretary of Health and Human Services, each appeared in seven tweets. Few of the other characters surfaced close to the magnitude of those aforementioned. However, although unidentified here, the other characters identified in the tweets should not be ignored. One character was mentioned six times; four characters were mentioned five times; six characters were mentioned four times; four characters were mentioned three times; 14 characters were mentioned only twice (including the Obama family dog, Bo); and 40 characters were mentioned only once.

The third unit of analysis was the Links present in each tweet. Categories discussed in this section include hashtags, @usernames, shortened URLs, and Web sites (Appendix B). Fifteen tweets contained none of these elements, and the most links in one tweet were 11, though most tweets only had between one and three. A total of 34 hashtags appeared 104 times. Twenty-four were mentioned once, three were mentioned twice, three others were mentioned three times, three more were mentioned four times, and one was mentioned 45 times. The one mentioned forty-five times was for healthcare (hashtag = #hcr). There were 55 @usernames in the sample and they occurred 177 times. Of these, 24 were followers of the White House, and they created 40 tweets. Fifteen different shortened URLs were present and were included 406 times total. Four Web sites were posted for a total of five times.
DISCUSSION

The results of this study found multiple patterns of usage. Themes, the first unit of analysis, disclosed a couple points of interest (Appendix A). First, the policy-oriented subcategory of healthcare captured just over 30 percent of all the tweets in the sample. This spotlights how popular and momentous this single issue was and indicates that the White House provides much information on popular national issues. Furthermore, this data show what the government talks about to its citizens. The event-oriented subcategory of national announcements and events took over 35 percent of all the tweets in the sample. This subcategory consists of information regarding recent decisions in the government, discussions to take place in the future, and other similar current events within the country, with the exception of those in other subcategories. Announcements and events were placed together because many of the announcements were about upcoming events, although quite a few were about actions recently taken. This subcategory spans a wide range of areas, though no significant patterns appeared within them. The significance of this subcategory lies in the pattern of communicating on a day-to-day basis, and often in much smaller measurements of time, regardless of the announcement or event. Between both categories of themes, 65 percent were from healthcare, and from national announcements and events. This recurrence reflects the White House’s exigency for awareness of national issues. This data, in addition to each of the other subcategories, suggests that the White House’s intent is to provide people with coverage of its immediate workings.

The second unit of analysis, Characters, also provided patterns of usage. Of all the appearances of characters, President Obama appeared in over 46 percent of all the tweets. It seems natural that the position of president would warrant an overwhelming majority of appearances, as the title holds so much significance to the country. As First Lady Michelle Obama was second in the number of appearances, there may be a pattern of promoting the popularity of this particular presidential family. Dan Pfeiffer’s name was third most common, though only found in the @username form (Appendix B). This reveals him, as the White House Communications Director, to be a continuous source of information even though only a little more than three percent of appearances were his. This is important because it identifies specific sources of information within the White House, rather than presenting information exclusively. The characters of Vice President Biden, White House Press Secretary Gibbs, Director of the White House Office of Health Reform Deparle, and Secretary of Health and Human Services Sebelius appeared even less but are included because of the information related to their positions and areas of work that appeared in the tweets. Twenty-nine other characters were mentioned between two to six times in tweets, and 40 characters were mentioned just once. In total, these characters
appeared just under 20 percent of the times characters were mentioned. The pattern here tells of the many people involved in government affairs and of their topical actions and connections therein. This pattern is significant because it provides information on who is involved, what each person’s particular role is, and their actions that contribute to the efficacy of the government.

The third unit of analysis was the Links present in each tweet (Appendix B), which also revealed a series of patterns. Health care was dominant in the appearance of hashtags, with almost a 46 percent dominance among them all. This finding further reinforces the pattern of usage based on popularity and importance, as seen in the Themes categories (Appendix A). However, there is little to no patterning between any of the other hashtags. Still, the remaining 32 hashtags, which accumulated 59 appearances, are important. The wide variety of topics also supports the pattern of providing information on the basis of when it occurs or can become available on a mass level through the media. There were also 55 @usernames present 177 times (Appendix B). This finding suggests that there are a large number of sources who provide information on this site. Only @dooce, @SecPress, and @whitehouse stand out from this group, though their prominence does not appear to be dominant among the whole collection of @usernames.

There were 15 different shortened URLs posted, which were used 406 times, and there were 4 Web addresses posted just 6 times (Appendix B). As explained previously, the difference between a shortened URL and a Web address is only in the capacity of each to take up space within the post. Of all of these, the only noticeable repetition is from the shortened URL “http://bit.ly,” which is used by the White House’s Twitter account as a shortcut to www.whitehouse.gov. The Web page http://bit.ly, without any added text following the address, is a site where URLs can be shortened. For example, http://bit.ly/aqgEu5 is the shortened URL for the lengthy Web address of http://www.whitehouse.gov/photos-and-video/photogallery/first-lady-mexico, which displays a set of photographs of First Lady Michelle Obama in Mexico. This shortening of the actual Web address reduced 73 characters of text to 20. This link is used 340 times out of the 406 posts included throughout the sample. Overall, the presence of such a large and consistent number of links revealed that the small space made available to communicate with on Twitter is being used as ‘headlines’ by the White House, because the links provide further information of substance related to the tweet. The significance of this finding is that the White House utilized Twitter as a journalistic tool to quickly provide short updates, but also allow for additional information to be obtained. As Twitter is a stream of short messages, this technique greatly reduces the clutter of information that followers may find superfluous or unwanted because it may be irrelevant to them personally.
This is significant because it exhibits how the White House uses Twitter to disclose lots of information quickly on many issues without diverting followers from the information most relevant to each of them.

LIMITATIONS AND FUTURE RESEARCH

The most important limitation of this study is also one of its strengths. The government is early in its usage of new media and this study is a snapshot of its beginning. Though it is important to see how usage is pioneered in its early phase to examine its current standing and potential progression, it is likely that some of the patterns found in this study will evolve. Future research would certainly be beneficial on this topic in order to see how changes occurred and why. Additionally, research on other new media may have different results due to their unique characteristics. Research on how the government reaches different audiences, and who these different audiences are, on each new media may also provide improvement.

CONCLUSION

New media brings an exponentially greater amount of information to anyone with access to them. In fact, this increased speed of information exchange has already fundamentally changed the nature of communication for the entire world. The U.S. government’s participation in these new media has just begun to evolve, and there is a great need to understand how. This study looked specifically at the White House’s use of the social networking site Twitter to reveal a series of usage patterns. The White House profile on Twitter is managed as a mass media tool to provide information concerning current government affairs. Significantly, there is an emphasis on immediacy of information, as many tweets are posted through a moment-by-moment lens. The White House’s intent is focused on spreading awareness of government functions, and, in turn, may be viewed as a means of increasing transparency. Prior to the emergence of this new media, there were few resources available that could effectively and efficiently provide as much attention to all of the issues as brought forth on the White House’s Twitter account. Furthermore, the wide range of characters presented in the tweets illuminate many of the different functions of the government, by explaining the roles and actions of people involved in government affairs. Within the content of nearly every tweet is at least one link to a Web page. This technique provides information in the fashion of a “headline with article attached.” This continuous flow of information, without the potential clutter, communicates effectively and quickly. The milieu of the government has been greatly opened through the use of this new medium.
Additionally, the White House uses its Twitter account in order to be a news source, often detailed and contemporaneous, for many of its own activities. The range of new media now available have powerfully extended the government’s reach by enabling it to rapidly share important updates with its enormous following of well over 1,700,000 people and organizations on Twitter. Confirming this, McLuhan said, “A speed-up in communication always enables a central authority to extend its operations to more distant margins” (96). The inception of profiles and accounts on social networking sites by the government has just began to revolutionize its communication sphere and will inevitably initiate a presence in most, if not all, new media as they arise.
## APPENDIX A. THEMES

<table>
<thead>
<tr>
<th>Policy</th>
<th># of times mentioned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economy (employment, Recovery Act, etc.)</td>
<td>46</td>
</tr>
<tr>
<td>Health Care</td>
<td>141</td>
</tr>
<tr>
<td>Nuclear Issues</td>
<td>18</td>
</tr>
<tr>
<td>Wall Street Reform</td>
<td>15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Event</th>
<th># of times mentioned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Situations</td>
<td>29</td>
</tr>
<tr>
<td>Holidays and National Days</td>
<td>19</td>
</tr>
<tr>
<td>National Announcements and Events</td>
<td>166</td>
</tr>
<tr>
<td>International Events</td>
<td>29</td>
</tr>
</tbody>
</table>
# APPENDIX B. LINKS

<table>
<thead>
<tr>
<th>Hashtags</th>
<th># of times counted</th>
</tr>
</thead>
<tbody>
<tr>
<td>#arra</td>
<td>2</td>
</tr>
<tr>
<td>#CPSC</td>
<td>1</td>
</tr>
<tr>
<td>#datagov</td>
<td>1</td>
</tr>
<tr>
<td>#drugstrategy</td>
<td>1</td>
</tr>
<tr>
<td>#endmalaria</td>
<td>1</td>
</tr>
<tr>
<td>#esummit</td>
<td>1</td>
</tr>
<tr>
<td>#FF</td>
<td>5</td>
</tr>
<tr>
<td>#finreg</td>
<td>1</td>
</tr>
<tr>
<td>#gcedd</td>
<td>1</td>
</tr>
<tr>
<td>#gmu</td>
<td>1</td>
</tr>
<tr>
<td>#gop</td>
<td>1</td>
</tr>
<tr>
<td>#green</td>
<td>1</td>
</tr>
<tr>
<td>#Haiti</td>
<td>1</td>
</tr>
<tr>
<td>#hcr</td>
<td>45</td>
</tr>
<tr>
<td>#healthreform</td>
<td>2</td>
</tr>
<tr>
<td>#imtiredofseeing</td>
<td>1</td>
</tr>
<tr>
<td>#nashvilleflood</td>
<td>4</td>
</tr>
<tr>
<td>#MLB</td>
<td>1</td>
</tr>
<tr>
<td>#NuclearSecuritySummit</td>
<td>1</td>
</tr>
<tr>
<td>#obamagmu</td>
<td>1</td>
</tr>
<tr>
<td>#obamaYTinterview</td>
<td>3</td>
</tr>
<tr>
<td>#OFQ</td>
<td>1</td>
</tr>
<tr>
<td>#potusfistbump</td>
<td>1</td>
</tr>
<tr>
<td>#questiontime</td>
<td>4</td>
</tr>
<tr>
<td>#S</td>
<td>2</td>
</tr>
<tr>
<td>#SecClinton</td>
<td>1</td>
</tr>
<tr>
<td>#smallbiz</td>
<td>1</td>
</tr>
<tr>
<td>#SOTU</td>
<td>1</td>
</tr>
<tr>
<td>#StateOfTheUnion</td>
<td>1</td>
</tr>
<tr>
<td>#TEDstate</td>
<td>1</td>
</tr>
<tr>
<td>#whgc</td>
<td>3</td>
</tr>
<tr>
<td>#WIF</td>
<td>1</td>
</tr>
<tr>
<td>#worldmalariaday</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total # of Hashtags Used</strong></td>
<td><strong>33</strong></td>
</tr>
<tr>
<td><strong>Total # of Hashtags in Sample</strong></td>
<td><strong>104</strong></td>
</tr>
<tr>
<td>@usernames</td>
<td># of times Counted</td>
</tr>
<tr>
<td>----------------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>@AmbassadorRice</td>
<td>2</td>
</tr>
<tr>
<td>@BET</td>
<td>1</td>
</tr>
<tr>
<td>@billburton44</td>
<td>7</td>
</tr>
<tr>
<td>@BusinessDotGov</td>
<td>2</td>
</tr>
<tr>
<td>@CNN</td>
<td>1</td>
</tr>
<tr>
<td>@connect2mason</td>
<td>1</td>
</tr>
<tr>
<td>@CraigatFEMA</td>
<td>2</td>
</tr>
<tr>
<td>@cspan</td>
<td>1</td>
</tr>
<tr>
<td>@demetrogirl</td>
<td>1</td>
</tr>
<tr>
<td>@Disabilitygov</td>
<td>1</td>
</tr>
<tr>
<td>@dooce</td>
<td>13</td>
</tr>
<tr>
<td>@EDPressSec</td>
<td>2</td>
</tr>
<tr>
<td>@ezraklein</td>
<td>1</td>
</tr>
<tr>
<td>@FCC</td>
<td>1</td>
</tr>
<tr>
<td>@GLEEonFox</td>
<td>2</td>
</tr>
<tr>
<td>@GOOD</td>
<td>1</td>
</tr>
<tr>
<td>@HealthReformNow</td>
<td>1</td>
</tr>
<tr>
<td>@HHSGov</td>
<td>4</td>
</tr>
<tr>
<td>@houseDemocrats</td>
<td>2</td>
</tr>
<tr>
<td>@huffpostcollege</td>
<td>2</td>
</tr>
<tr>
<td>@JRMorber</td>
<td>1</td>
</tr>
<tr>
<td>@justinbieber</td>
<td>4</td>
</tr>
<tr>
<td>@KateAtState</td>
<td>1</td>
</tr>
<tr>
<td>@lacasablanca</td>
<td>1</td>
</tr>
<tr>
<td>@lisapjackson</td>
<td>2</td>
</tr>
<tr>
<td>@macon44</td>
<td>5</td>
</tr>
<tr>
<td>@MLB</td>
<td>1</td>
</tr>
<tr>
<td>@MLBLineDrives</td>
<td>1</td>
</tr>
<tr>
<td>@NASA</td>
<td>1</td>
</tr>
<tr>
<td>@NationalZoo</td>
<td>1</td>
</tr>
<tr>
<td>@NavelEnergy</td>
<td>1</td>
</tr>
<tr>
<td>@NavyNews</td>
<td>2</td>
</tr>
<tr>
<td>@nytimes</td>
<td>1</td>
</tr>
<tr>
<td>@ONDCP</td>
<td>1</td>
</tr>
<tr>
<td>@OnSafety</td>
<td>1</td>
</tr>
<tr>
<td>@petesouza</td>
<td>2</td>
</tr>
<tr>
<td>@PressSec</td>
<td>20</td>
</tr>
<tr>
<td>@RayLaHood</td>
<td>1</td>
</tr>
<tr>
<td>@usernames</td>
<td># of times Counted</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>@RecoveryDotGov</td>
<td>1</td>
</tr>
<tr>
<td>@RobAtState</td>
<td>1</td>
</tr>
<tr>
<td>@SaraBareilles</td>
<td>1</td>
</tr>
<tr>
<td>@SecLocke</td>
<td>1</td>
</tr>
<tr>
<td>@SECNAV</td>
<td>1</td>
</tr>
<tr>
<td>@ServeDotGov</td>
<td>1</td>
</tr>
<tr>
<td>@StateDept</td>
<td>1</td>
</tr>
<tr>
<td>@thejointstaff</td>
<td>1</td>
</tr>
<tr>
<td>@TheJusticeDept</td>
<td>1</td>
</tr>
<tr>
<td>@timryan</td>
<td>1</td>
</tr>
<tr>
<td>@twitter</td>
<td>2</td>
</tr>
<tr>
<td>@usacurrency</td>
<td>1</td>
</tr>
<tr>
<td>@USATODAY</td>
<td>2</td>
</tr>
<tr>
<td>@USDAFoodSafety</td>
<td>1</td>
</tr>
<tr>
<td>@whitehouse</td>
<td>10</td>
</tr>
<tr>
<td>@whitehouseostp</td>
<td>2</td>
</tr>
<tr>
<td>Total # of @username</td>
<td>55</td>
</tr>
<tr>
<td>Total # of @username posts</td>
<td>177</td>
</tr>
<tr>
<td>Total # of @username posts following the White House</td>
<td>40</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Shortened URLs</th>
<th># of Times Counted</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="http://c-span.org">http://c-span.org</a></td>
<td>1</td>
</tr>
<tr>
<td><a href="http://epa.gov">http://epa.gov</a></td>
<td>2</td>
</tr>
<tr>
<td><a href="http://go.usa.gov">http://go.usa.gov</a></td>
<td>2</td>
</tr>
<tr>
<td><a href="http://huff.to/aDjOim">http://huff.to/aDjOim</a></td>
<td>1</td>
</tr>
<tr>
<td><a href="http://is.gd">http://is.gd</a></td>
<td>1</td>
</tr>
<tr>
<td><a href="http://ow.ly">http://ow.ly</a></td>
<td>3</td>
</tr>
<tr>
<td><a href="http://nyti">http://nyti</a>.</td>
<td>4</td>
</tr>
<tr>
<td><a href="http://stopfraud.gov">http://stopfraud.gov</a></td>
<td>1</td>
</tr>
<tr>
<td><a href="http://tiny.cc/cv46n">http://tiny.cc/cv46n</a></td>
<td>1</td>
</tr>
<tr>
<td><a href="http://tinyurl.com/esummitlive">http://tinyurl.com/esummitlive</a></td>
<td>1</td>
</tr>
<tr>
<td><a href="http://tweetpic.com">http://tweetpic.com</a></td>
<td>8</td>
</tr>
<tr>
<td><a href="http://ustre.am/6AET">http://ustre.am/6AET</a></td>
<td>1</td>
</tr>
<tr>
<td><a href="http://wh.gov/live">http://wh.gov/live</a></td>
<td>36</td>
</tr>
<tr>
<td><a href="http://youtube.com">http://youtube.com</a></td>
<td>4</td>
</tr>
<tr>
<td>Total # of shortened URLs</td>
<td>15</td>
</tr>
<tr>
<td>Total # of posts</td>
<td>406</td>
</tr>
<tr>
<td>Web Sites</td>
<td># of Times Counted</td>
</tr>
<tr>
<td>-------------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td><a href="http://www.creditcards.com">www.creditcards.com</a></td>
<td>2</td>
</tr>
<tr>
<td><a href="http://www.hhs.gov/live">www.hhs.gov/live</a></td>
<td>1</td>
</tr>
<tr>
<td><a href="http://www.letsmove.gov">www.letsmove.gov</a></td>
<td>1</td>
</tr>
<tr>
<td><a href="http://www.newmoney.gov">www.newmoney.gov</a></td>
<td>1</td>
</tr>
<tr>
<td>Total # of www links</td>
<td>4</td>
</tr>
<tr>
<td>Total # of posts</td>
<td>5</td>
</tr>
</tbody>
</table>
REFERENCES


Hmong Elders and Coping with Acculturation Stress

by Lee Thao
Faculty Mentor: Dr. Marya Endriga

ABSTRACT
This study explored how Hmong elders in the United States cope with acculturation stress. Six Hmong elders (two males and four females between the ages of 60 and 71 living within the Sacramento County area) were interviewed regarding acculturation stress and coping mechanisms used to manage that stress. A hierarchy analysis was used to analyze the interview responses. Interview themes revealed that Hmong elders often described assimilation and integration strategies of acculturation. Themes of acceptance and lack of control over their lives also emerged from the interview data, which seemed to better explain the participants’ views of assimilation.

The Hmong people came to the United States as refugees seeking asylum from the Communist Pathet Lao (Tatman 2004; Xiong 2000; Yee and Cerhan 1990). During the Vietnam War, Hmong men were recruited by the United States to fight against Northern Vietnam (Xiong 2000). After the war, the Americans left Vietnam and left a large population of Hmong to fend for themselves. Many sought refuge in Thailand and countless numbers of them drowned in the Mekong River when crossing to Thailand from Laos. In the 1990s, the Thai government closed the United Nations’ camps that housed many Hmong refugees. With nowhere else to go, roughly 15,000 Hmong moved to Wat Tham Krabok, a Buddhist monastery in Thailand (Allen 2004). In 2003, the U.S. State Department reported that the United States was going to open its gates to the Hmong refugees living in Wat Tham Krabok. By mid-2005, around 13,000 new Hmong refugees came to the United States and were faced with the process of acculturation (Gerdner et al. 2006).

The purpose of this research is to understand how Hmong elders who are 55 years or older cope with acculturation stress on a daily basis. The literature of acculturation stress among Hmong elders is sparse, and there is no research on coping strategies for acculturation stress in this population. It is important to know what methods Hmong elders used to cope with stress.
and how effective these strategies have been because the Office of Refugee Resettlement has recognized the Hmong as one of the immigrant groups having the most difficult time adjusting to American culture (Gerdner et al. 2006). Tatman (2004) reported a 43% rate of mental health diagnoses in Hmong people; a rate that is about twice as high as the general population and likely explained by their wartime experiences and acculturation strain due to immigration to the U.S.

LITERATURE REVIEW

Researchers have been studying stress and coping styles for more than 50 years (Krohne 2002). As reported by Lazarus and Folkman (1984), Lazarus and Cohen defined three types of stress. The first type is a major life-changing event that involves many people such as war, relocation, and natural disasters. The second type is also a life-changing event, but is one that involves only a few people such as divorce or the death of a loved one. The last type is daily problems such as an argument or dealing with an irritating co-worker. For the present research, acculturation stress falls into the third type of stress because everyday problems, such as loneliness and frustration, can be part of acculturating into another culture. It is important to note, however, that everyday acculturation stress may also be combined with or influenced by the first and second types of stress because many Hmong elders living in the United States experienced the Vietnam War and, with that, the death of at least one family member.

The Hmong and Acculturation Stress

The Hmong are a group of Southeast Asians who have repeatedly shown their resistance to acculturation; consequently, one of the greatest stressors for Hmong elders is acculturation stress (Tatman 2004). Their history of resistance to acculturation was shown in China, Laos, Thailand, and now here in the United States where they still struggle to keep their cultural beliefs and religious practices (Xiong 2000). According to William and Berry (1991), acculturation includes the changes of finances, technology, politics, identity, and behavior. These changes contribute to physical, psychological, and biological stress (Gillette 2006). “Physical stressors” include the unfamiliarity of habitation, location, and the climate conditions, while “psychological stressors” include loneliness, home sickness, and being a social outcast. Biologically, the body’s vulnerability to foreign disease and new food could result in illness and even death (Xiong 2000). These examples demonstrate that acculturation stress may have dangerous consequences and, therefore, should be minimized as much as possible.
In 1977, during the arrival of the first group of Hmong refugees to the United States, a high number of males died unexpectedly at night, which has come to be known as the Sudden Unexpected Nocturnal Death Syndrome (SUNDS) (Xiong 2000). In the early 1980s, SUNDS peaked at a startling ratio of 92 deaths per 100,000 Hmong. Although no clear medical explanation for the phenomenon has been found, Adler (1995) has hypothesized that “abnormal electrical impulses in the heart” caused the deaths.

Adler also said that mental stress concerning traditional practice is prevalent in Hmong people who experienced this phenomenon. Due to the cultural differences, the Hmong were stressed at not being able to perform their religious rituals in America (Adler 1995). For example, slaughtering and sacrificing animals at home is not widely accepted in the United States, making the ritual more difficult to practice openly. Adler also reported that, although nightmare assaults or sleep paralysis are common in Laos, they did not result in death. Thus, SUNDS may be correlated with the acculturation stress in America.

Some scholars suggest that SUNDS has affected mostly men because of the role changes due to the acculturating process (Tatman 2004; Xiong 2000). In Laos, Hmong men are respected and are the main providers for the family. Elderly men were expected to give advice and resolve disagreements because they were highly respected due to their age (Xiong 2000). Conversely, in the United States, Hmong women’s expertise in embroidery and cleaning are better paid compared to men’s skills of hunting and farming (Tatman 2004). Among younger Hmong men, their physical strength may compensate for some of their other unrecognized skills, but the older Hmong men lose respect from their children and grandchildren as a result of their lessened role. Sometimes the elders are disrespected and are not consulted by their children when making important decisions because of the elders’ lack of education (Yee 1997). Although the elderly women have the same experiences, their roles of cooking, cleaning and childcare are still essential, and so they are less distressed (Xiong 2000).

The majority of Hmong elders cannot perform tasks that require English literacy skills, which is a significant source of acculturation stress. Sixty-one percent of Hmong elders in the United States are illiterate, and literacy largely affects a person’s motivation and potential to acculturate. Many of the elders are unable to attain a job in the United States because they cannot read or write (Xiong 2000), causing them to become financially dependent on their children and on government programs such as Social Security income and welfare benefits. Elders depend on their better-educated children to read and translate information to them. The younger generation not only translates
government forms, but also important notices from energy companies and doctors’ offices (Xiong 2000). This literacy dependency not only creates stress for the elders, but it also limits their access to resources such as counseling and other programs that may help them cope with stress.

Coping Strategies
Although the percentage of mental health diagnoses in the Hmong community is high, most Hmong people are reluctant to seek professional help. Hmong elders would normally seek the help of their family and clan leaders before they seek help from mental health service providers (Cerhan 1990). Hmong elders prefer to seek help that is consistent with their cultural beliefs before surrendering to Western medicines or treatments, because these approaches to coping with stress, such as counseling, would seem bizarre and unnatural to the Hmong (Tatman 2004). Fang reported that 52% of Hmong elders still like to use herbal treatments and a spiritual healer such as shaman to call back their lost or wandering soul (Gensheimer 2006; Fang 1998; Gerdner et al. 2006).

There are theories of coping strategies that researchers have used to evaluate or analyze coping behaviors. Lazarus and Folkman’s (1984) definition of “coping” is “constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person.” Some coping strategies that have been greatly studied are problem-focused and emotion-focused strategies (Schier 1986). A “problem-focused coping strategy” is used to eliminate the stressor, while an “emotion-focused strategy” is used to ease the feelings of sorrow that comes with the stressor. Problem-focused coping is found to be most effective in controllable situations, and emotion-focused coping is most effective when the situation cannot be controlled and one has to tolerate the problem (Schier 1986). Therefore, the effectiveness of these strategies depends on the situation.

Similar to the problem-focused and emotion-focused strategies is the “approach-avoidance coping strategy,” in which the person will actively find a solution or take action to solve the problem in order to reduce or eliminate stress, including the process of lessening the emotion that comes with the problem (Roth et al. 1986). The “avoidant coping strategy,” on the other hand, involves repressing any thoughts or feelings about the stressors (Roth et al. 1986), and giving little or no attention to the stressor.

Coping with acculturation stress, however, may take different strategies. According to Berry (1997), separation, marginalization, assimilation, and integration are some psychological strategies people may use to cope with the process of acculturation. “Separation” is when people choose to maintain
their own cultural values and do not try to acculturate into the customs of the host country. “Assimilation” is when people abandon their own cultural values and fully accept the customs of the host country. “Marginalization” is when people desert both their own cultural values and those of their host country; in contrast, “integration” is the strategy of upholding one’s own culture while learning the culture of the host country. Many scholars agreed that integration is the healthiest strategy to acculturate into a new culture because it is a balanced method (Gillette 2006). In this present study, the researcher explored the views of Hmong elders regarding their experiences of acculturation, their use of coping strategies, and the extent to which these strategies may fit into the four acculturation strategies. Based on what the existing literature reports, the researcher expected that Hmong elders’ coping strategies would fall into the separation category.

**METHODOLOGY**

The research question of how Hmong elders cope with acculturation stress was evaluated through an interview process. Human subjects were approved by California State University, Sacramento’s Department of Psychology Human Subjects Committee before the researcher proceeded with the interviews.

This qualitative research was conducted through individual interviews with the researcher. A qualitative method of interviewing was chosen for this research because of the lack of existing research on the topic of how Hmong elders cope with acculturation stress. Another reason an interview method was used is because most Hmong elders cannot read and write, making it difficult or impossible for them to take a written survey either in English or Hmong.

The interviews were semi-structured to allow the researcher to ask standard and follow-up questions and to probe more into unclear or broad answers. The researcher designed and prepared seven interview questions about acculturation and how participants cope with acculturation stress. The researcher chose open-ended questions because they were intended to allow the participants to share stories of themselves in a way that captured the participants’ stress and their way of managing that stress. The interview started with broad questions to build rapport and comfort with the participants and to give the participants the space to tell their stories. Standard interview questions were then asked, followed by specific follow-up questions that pertained to the research question. The next seven questions were demographic questions about age, education, and religion. Each interview took approximately thirty to forty-five minutes to conduct.
Participants
The researcher conducted outreach and recruitment of participants with the support of the Hmong Women’s Heritage Association in Sacramento, California. The participants were Hmong elders who are clients or had sought the help of the Hmong Women’s Heritage Association. Twelve elders signed up for the interview, but when the researcher called to confirm their participation, the researcher was able only obtained six confirmations. Six Hmong elders ages 60- to 71-years old were interviewed in the comfort of their homes. Four of the participants were females and two were males. The age criterion for an elder to participate was 55 years of age or older, because the Hmong community defines someone as an elder at a younger age than other groups.

Procedure
The researcher introduced herself as a student from California State University, Sacramento who was conducting the interview research as part of her participation in a school program. The reason for the introduction was to let the elders know that the researcher was not from any government agency that was investigating them. It was important to establish the researcher’s identity so that the participants could feel comfortable revealing sensitive answers about their stress. The option to decline to be part of the research was given to the participants. When the participant agreed to be part of the research, the researcher then set an appointment to meet with the participant. The interviews were conducted at the participants’ homes where they were most comfortable, and because they are not able to drive. There were no incentives given for their participation, which was done solely on a voluntary basis.

Before the interview, each participant received a consent form that was translated into Hmong. Many Hmong elders do not know how to read English or Hmong; therefore, the researcher read the consent form in Hmong and then asked the participants to sign the forms. During the interview process, which was also conducted in the Hmong language, the participants were audio recorded, but they were asked to not state their names or anyone else’s name to ensure anonymity. After the interview, each participant received a translated debriefing form, which the researcher also read to the participants in the Hmong language and answered any questions. During debriefing, the participants were advised that the Asian Pacific Community Counseling organization or Hmong Women’s Heritage Association would be available for counseling if the research caused any painful emotions or bad recollections that they might want to talk about.

Analysis
In order for the researcher to analyze and draw conclusions from the raw, transcribed data, the “analytic hierarchy approach” was used. This is the
process of grouping and categorizing transcribed interviews in order for the researcher to visualize what is going on (Spencer et al. 2003). Using this approach helped the present researcher identify, organize, synthesize, and then refine the thematic context present in the transcribed interviews with Hmong elders.

There were four *a priori* themes already laid out from the interview questions, to which additional emerging themes such as family violence were added. Specifically, the researcher categorized interview data that fit the four types of coping strategies: separation, marginalization, assimilation, and integration. Furthermore, the researcher used the framework approach toward descriptive analysis. Using the framework approach helped the researcher to sort more specific elements within each theme (Spencer et al. 2003). After using the analytic hierarchy to organize the data into themes, the framework approach was used to summarize the themes for analysis.

**FINDINGS AND DISCUSSION**

The purpose of this research was to examine how Hmong elders cope with acculturation stress. In order to find out how Hmong elders cope with acculturation stress, the researcher used an interview method. The interview questions were specifically designed to identify if the participants had any acculturation difficulty and stress. The researcher then followed up with a question on how the elders cope with the stress.

**Changes and Acculturation**

The interviews revealed that the elders can identify many changes in their cultural beliefs and traditions since their immigration to America. In the words of one participant:

*In this country, you have electricity, water in the house, and so if you want light, it’s there, if you want water, it’s there, and if you want to go to the bathroom, it’s in the house.*

This participant was comparing the changes in his way of life in Laos to life in America. His way of life changed because, in the United States, everything is conveniently installed in the home, whereas in Laos things were more difficult because there was no running water, electricity, or indoor bathroom. Interviewees also described cultural differences in strictness to time. Specifically, they expressed their understanding that Americans work around the clock, while the Hmong people like a more flexible schedule to go and come as they please. These responses are examples of changes in culture and custom that the Hmong elders identified in the interviews.
After it was established that there were evident changes to the Hmong culture and customs, the researcher asked about specific accommodations that the participants have made to American culture. One common theme in the participants’ answers was that they felt that they have no control over what they want to change, and that they were forced to change because there was no other option. Participants gave at least two examples of this theme:

1. *We have to change to be like them. It's like driving; we have to know the rules to be able to drive. In America, we have to know their rules to live here.*

2. *Whatever they let us do, and then we do.*

These answers suggest an attitude of having been forced or given no choice. In the first quote, the participant compared her experience to driving. What she means is understandable because it is crucial that the driver knows the rules of driving, like what a red light means and what one should do at a stop sign. If a driver does not know these rules, then the driver will soon be stopped by the police or probably get into an accident. Similarly, living in the United States requires the elders to know and obey the country’s laws. The second quote shows that the participant answered this question in a way that communicates a lack of freedom. He feels that he can only do what he is allowed to do.

The elders’ beliefs that they have no power were also evident when asked what they do when things get hard or how they cope. The elders gave answers such as:

1. *If it gets too difficult, then I cried. After a long cry then that’s it. What else can I do? I do not know what to do.*

2. *Even if I cannot change, I just live on as how I am living. There’s nothing I can do.*

3. *What is most difficult is that I cannot speak and write their language even when I tried to learn. And so that cannot be changed. I have to ask those who are knowledgeable and those who understand the language to help translate.*

These elders seemed to believe that they cannot do anything to change their fate. They believe that they have no power because they are unable to speak and write English, so most of them ignore the problem or depend on the younger generation who are more educated and knowledgeable. When the researcher asked what they would do if they were required to read or write,
all the interviewed elders referred to their children or any educated Hmong person for help.

Another way to interpret the theme of forced assimilation is that the Hmong elders are trying to accept cultural changes that they feel they have no power over because they understand that they are the minority in the United States. The previously quoted responses show that the elders have an understanding that they have to learn and abide by the rules of this country in order for them to survive. Elders may be assimilating through their value of acceptance. They are accepting what they cannot change and are absorbing whatever they can of the American culture.

Coping Strategies

The researcher categorized the interview responses into themes of separation, assimilation, marginalization, or integration acculturation coping strategies as shown in Table 1.

<table>
<thead>
<tr>
<th>Separation</th>
<th>Assimilation</th>
<th>Integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintains own customs, does not accept customs of host country</td>
<td>Abandons own customs and fully accepts customs of host country</td>
<td>Maintains own customs and accepts customs of host country</td>
</tr>
<tr>
<td>• I do not change</td>
<td>• Way of life changes</td>
<td>• Women become more equal</td>
</tr>
<tr>
<td>• Uneducated people do not change</td>
<td>• Have to change to be like them</td>
<td>• Less rules and traditions to follow</td>
</tr>
<tr>
<td>• Do not know how to change</td>
<td>• Do not make loud noises</td>
<td>• Shamans charge for services</td>
</tr>
<tr>
<td>• Do not care</td>
<td>• Follow the children</td>
<td>• Men lower their power</td>
</tr>
<tr>
<td>• Cannot change the food we eat</td>
<td>• Do only what they allow us to do</td>
<td>• Learn to accommodate each other</td>
</tr>
<tr>
<td>• Those who cannot change commit suicide</td>
<td>• Change our beliefs</td>
<td>• Be patient and ignore each other’s faults</td>
</tr>
<tr>
<td>• Hmong cannot be like them</td>
<td>• Change the way we talk</td>
<td>• Slowly change</td>
</tr>
<tr>
<td></td>
<td>• Change our spirits and behaviors</td>
<td>• Asks neighbors to excuse our traditional ways</td>
</tr>
<tr>
<td></td>
<td>• Have to follow the clock/time</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• They know best</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• The Americans will take of it</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Go to church</td>
<td></td>
</tr>
</tbody>
</table>

Table 1. Acculturation coping strategies identified in interview responses

Based on this analysis, it appears that Hmong elders mostly use the strategy of assimilation to acculturate into the American culture. There was no indication of any elders using the marginalization strategy, which is the strategy of ignoring both cultures. The elders seemed to use assimilation a lot more in acculturating because, as stated before, they believe that they have no power to control what happens. However, this does not mean that Hmong elders abandoned their cultural beliefs and have fully taken on the American culture. Elders only assimilate when they believe that they are less knowledgeable, or when they have no control over it, such as with government laws. Many of the Hmong elders use the integration strategy.
more when it comes to more personal matters, such as family problems and their cultural beliefs. For example, one participant said:

_Eating habits have changed. Women used to eat last always, but now women have their own table and men have their own. They can eat at the same time. Men and women were also segregated, but now, they can go everywhere together._

Another participant expressed his dissatisfaction at a change that he did not like, “When you go ask for a shaman, he will charge you $40 to $50. In Laos, they never charge you for their services.”

These two quotes demonstrate that the Hmong are changing some of their customs to accommodate the American way of life. The first quote showed the changes of the Hmong elders acculturating into the United States’ perspective of equality, especially the equality of sexes. The Hmong were able to change this part of their culture because of the wealth they found in America. In America, the Hmong have become wealthier although they are only considered middle class. In this country, Hmong families are able to provide more food during parties, and so there is plenty of food for men and women to eat simultaneously. In Laos, because men were regarded in a higher status, they were invited to eat first for fear that there may not be enough food for all.

The second quote also showed the changes of the Hmong culture in America because of wealth. In the United States, money is the currency for services, but in Laos the Hmong do not use such currency, instead they exchange labor. In Laos, shamans do not ask for money because they knew that the family does not have any and that their labor will be repaid some other way. The second quote indicated that, in the United States, some shamans are integrating the American currency for their services because they know that their labor will not be repaid with labor.

An emergent theme brought up among the elders is the child discipline policy in America. It was brought up by three out of the six elders during either the questions about cultural changes here in America or during the questions about status/power change. It was a conflict because they do not know what to do. If the Americans do not let them discipline their children by hitting them, then the elders believe the children would not listen. When the children do not listen, then the Americans blame the parents for not teaching the children. Thus, the elders have significant concerns on how they can discipline their children if the idea of hitting conflicts with United States law.

Similarly, many participants talked about decreases in what might be termed “domestic violence.” Some of the elders brought this up when they talked about child discipline and some brought it up at other points in the interview.
They said that men could not beat or threaten their wives as much as they did when living in Laos because of the American laws. The women said that men are decreasing in their power and are becoming more lenient toward women. However, one man said that he feels that women in this country have more rights than men, because the police and government would always take the women’s side. Overall, both the men and women said that they are acculturating to American ways, and the men are limited in their power and status.

LIMITATIONS

One of the biggest limitations for this research was the accuracy of the translation of the written research materials. The interview questions, consent form, and debriefing form were translated from English to Hmong, to the best of the researcher’s ability, with the help of some peers and the Hmong Women’s Heritage Association staff. Although it is very important to have interview questions and other written study materials translated back from Hmong to English to verify the accuracy of the translation, this was not done for the present research. This was due to limited resources and time and may have affected the accuracy of the translated materials and, therefore, the analysis. In order to keep the analysis as accurate as possible, the researcher did not include information that was not relevant to the questions. There are only a few of these answers that were believed to be irrelevant and were, therefore, thrown out.

Another limitation of the present research was the number of interviewees and the insufficient representation of male participants. There were four female participants, but only two males. It is believed that Hmong men are more reserved and hesitant to participate in this kind of study than Hmong women. However, it is important to collect a variety of views from both men and women because, as discussed in previous studies (Xiong 2000; Tatman 2004), men and women have a different experience of acculturation and acculturation stress. In addition, the small sample size increases the likelihood that other prominent themes may be present in the population but were not discussed by the study participants. There was also not enough information to make a real solid analysis of how the Hmong elders cope with acculturation stress because of the limited number of participants.

FUTURE RESEARCH

For future research, back translation should be used for any translation to ensure the accuracy of the information. A larger sample size and more male participants should be recruited to provide more insights and information about Hmong elders’ experiences in acculturation.
Future research should consider conducting a quantitative study that examines how variables such as social events, Hmong radio, the elders’ ability to drive, and religion affect the elders’ stress level. This quantitative research will help answer the question of what factor help Hmong elders live successfully in the United States. In terms of more qualitative research, researchers should develop more specific questions that will be easier for elders to answer. In this research, some elders were confused by the broad questions and gave unclear answers.

CONCLUSION

The purpose of this research was to understand how Hmong elders cope with acculturation stress in the United States. It is important to explore Hmong elders’ coping mechanism for acculturation stress because, according to the Office of Refugee Resettlement, Hmong have been labeled as one of the most difficult groups to acculturate into the American culture. Research such as the current study will help professionals understand the perspective of Hmong elders and their way of coping so they can better serve the Hmong elders in dealing with their stress. The present researcher explored the Hmong elders’ experiences acculturating to American culture and customs through individual interviews. Through these interviews, Hmong elders were able to share some of their experiences about how they cope and feel about the changes within the Hmong community.

The researcher found that Hmong elders are assimilating and integrating into the American culture; however, they still struggle with power and control over their lives. The Hmong elders felt that education and knowledge constitute power, and because most Hmong elders are illiterate, they feel that they have very little power to control their lives. With this study, the researcher was able to understand that the Hmong elders’ way of coping with this lack of control is to let the problem go and detach themselves from the problem or stress.
REFERENCES


Activity Budgets of Two Captive White-Handed Gibbon (*Hylobates lar*) Populations Housed in Different Types of Environments

by Sara Warren
Faculty Mentor: Dr. Elizabeth Strasser

ABSTRACT

Housing captive primates in environments representative of their wild habitat in many cases can be challenging. Captive white-handed gibbons can be housed in a caged environment or on an island surrounded by a moat. It has been hypothesized that the quality of the captive environment can affect gibbon behavior, as expressed in (or by) their activity budgets. The researcher observed the activity budgets of captive white-handed gibbons at two Northern California zoos. The captive primates’ activity budgets were compared against those of wild gibbons to gauge similarities or differences between captive and wild animals. Both captive populations’ activity budgets were similar, but varied from those of wild populations, as the captive animals have no need to travel for food.

Recreating any wild animal’s habitat in a zoo environment is always going to be a challenge (Hosey 2005). Zoo visitors will sometimes comment on how captive animal exhibits are small or cage-like. There are regulations on animal enclosures and health laid out by United States Department of Agriculture’s (USDA 2010) Animal and Plant Health Inspection Service (APHIS), though many zoos follow the guidelines of the Association of Zoos and Aquariums (AZA), which, according to its Web site, are more stringent about animal well-being. The “activity budgets” of animals, or the time an animal devotes to various activities, such as traveling, resting, eating, and socializing, are indicators of the quality of an enclosure.

Although it is important for all captive species to have high quality enclosures to live in, the impact of the relatively small enclosures on the activity budgets of two captive white-handed gibbons populations is the focus of this study.

The white-handed gibbon, *Hylobates lar*, is an ape of the family *Hylobatidae* (Rowe 1996). In the wild, these arboreal, or tree dwelling, primates are found in the deciduous and evergreen rainforests (Roonwal and Mohnot 1977; Rowe 1996) of Northern Sumatra, in parts of Malaysia, Burma, and Thailand (Groves 2001). Within their natural environments, white-handed gibbons live
in small monogamous groups, consisting of an adult female-male pair and their offspring (Chivers 1972; Crandall 1964; Rowe 1996). In captive settings, white-handed gibbons are usually paired similarly (Geissmann 1995), though it has been noted that two adult female gibbons can cohabit peacefully, although adult male gibbons are far too aggressive to be housed together in a captive setting (Crandall 1964; Geissman 1995).

Gibbons are classified in the same superfamily as humans and other apes and are the smallest of the living apes. The behavior of our fellow apes provides a window to understanding our evolutionary past. For example, it has been suggested by Geissmann (2000) that gibbon “dueting,” the songs adult gibbons engage in to strengthen their relationship and to secure their territory, could be linked to the human capability for music and singing. Because it is easier to study captive apes than those in the wild, it is imperative that we provide environments that support healthy activity budgets.

As of March 2010, there were approximately 478 white-handed gibbons in zoos worldwide, according to the Gibbon Network Web site. Given the large number of captive gibbons, it is important for zoo management and staff to know what kind of environment the animal originates from and, therefore, is adapted to. A diet similar to their wild diet should be provided for the captive animals, and the space in which they are kept should take into account their activity budgets and travel needs. Enrichment, such as the introduction of novel items, can also be provided to captive animals to stimulate their activity levels.

Newberry (1995, 229) defines “environmental enrichment” as “an improvement in the biological functioning of captive animals resulting from modifications to their environment.” Enrichment items can be novel foods, cardboard boxes, mirrors, browse (a straw-like substance), old clothing, stuffed toys, or virtually anything with which the primate can interact that is not commonplace in their captive habitat. Enrichment can also be provided to captive animals to stimulate their brains and encourage interaction with their environment (Vick et al. 2000).

The Sacramento Zoo in Sacramento, California, houses many animals including a fair number of primates. The exhibit for the chimpanzees is much more naturalistic than those for many of the other primates in that it has an earthen floor and a variety of flora. In addition, there is plenty of space for the chimps to move about. Before the 1980s, these same chimpanzees lived in a smaller cage-like enclosure (Sacramento Zoo 2010). The exhibit that houses the two white-handed gibbons is similar to the pre-1980’s chimp enclosure in that it is a medium-sized cage with a concrete slab on the ground and seven 4x4 metal bars located along the top to simulate a “canopy” for the gibbons to swing in. The chimpanzees appear to interact more with their larger, lush
environment than the gibbons do in their smaller cage-like environment, suggesting that the type of enclosure each primate is housed within might affect their activity budgets.

Located two hours south of Sacramento, California, the Oakland Zoo also boasts many primate species, two white-handed gibbons being among them. The captive environment for the gibbons at the Oakland Zoo is very different from that at Sacramento Zoo. The gibbons at the Oakland Zoo are situated on an island habitat with a moat around it, which they will not attempt to traverse because gibbons cannot swim (Carpenter 1941; Keeling and McClure 1972). The island has many towering trees, ropes, vegetation and no cages. The Oakland Zoo’s white-handed gibbons perform ricochetal brachiation (e.g., like a ball ricocheting in a closed court), and they appear to be very interactive with their naturalistic environment. The Oakland Zoo’s exhibit is a veritable forest, with no bars, cages, or glass employed to keep the animals from the public, while the captive gibbons at the Sacramento Zoo are housed in an exhibit with no trees and minimal foliage.

RESEARCH QUESTION

Perhaps the size and scope of captive white-handed gibbon enclosures affects their activity budgets, as might be seen in a comparison of the activity budgets of the gibbons in two contrasting zoo environments. This research seeks to answer the question: Do both groups of gibbons show similar activity budgets regardless of their different captive environments? If it proves to be the case that the white-handed gibbons at the Sacramento Zoo are less active than those at the Oakland Zoo, more research can be conducted in order to provide a more expansive and foliage-rich environment for the Sacramento gibbons. This study takes into account the variation in the habitat provided for the captive white-handed gibbons at the two California zoos described previously, in order to discern if habitat size and offered environmental enrichment have an effect on the activity budgets of their inhabitants.

LITERATURE REVIEW

Much of the current literature on gibbons comes from research on wild populations, as more field studies have been conducted in the wild than in captivity. According to Melfi (2005, 102), “It would appear that most primatologists do not conduct research in zoos. The number of research projects undertaken on zoo-housed primates is surprisingly low,” hence, the need for research on captive primates such as the white-handed gibbons.
Wild vs. Captive Gibbon Diet
The diet of most primates comprises solids as well as water. White-handed gibbons are frugivorous primates (Bartlett 2009; Carpenter 1940) with 50% to 75% of their diet consisting of fruit (Chivers 1972; Rowe 1996). According to Rowe (1996), the rest of their diet consists of leaves (29%), insects (13%), and flowers (7%).

Both the zoos in the present study provide their captive white-handed gibbons at different times throughout the day a variety of greens, fruits, vegetables and leaf-eater chow (“monkey biscuits”). A captive gibbon drinks in one of two ways: they either dip their hands into a water source to lick it off, or they put their lips to the source and suck up the water. While these methods were not thought to be common in wild gibbon populations (Carpenter 1941), recent evidence shows that some wild gibbons will dip their hands into river water for a drink (YouTube 2010).

Locomotion and Travel
In the wild, white-handed gibbons travel mainly to find food resources (Bartlett 2009), which is not necessary in captivity as food is regularly provided. The ways in which a gibbon can travel are varied. The most widely used mode of travel is brachiation with bipedal walking coming in second (Carpenter 1941; Crandall 1964; Rowe 1996; Tuttle 1972). “Brachiation” employs the gibbon’s long arms to swing from branch to branch. With its shortened thumbs and strongly curved fingers, the gibbon’s long, hook-like hands allow brachiation to be skillfully executed (Groves 1972; Tuttle 1972).

Wild white-handed gibbons do not often come down from the safety of their arboreal habitat (Crandall 1964), but captive gibbons have been seen in many instances walking bipedally, either on the ground or on wide, sturdy branches (Crandall 1964; Napier and Napier 1967; Tuttle 1972). Though wild gibbons do travel bipedally, Carpenter (1941, 74) writes that, “brachiation predominates over walking” and that “in the forest where supports are mainly flexible branches, brachiation is used approximately nine times as frequently as walking.” Like a tight-rope walker, gibbons use their hands and arms to keep balance while walking bipedally (Carpenter 1941); they also possess well-developed thigh muscles (Groves 1972) that assist in any bipedal travel.

Wild Gibbon Activity Budgets
A large portion of a wild gibbon’s day is taken up with eating and traveling to feeding trees (Bartlett 2009; Carpenter 1941). Gibbons are “diurnal primates,” in that they are active during the day time (Carpenter 1941; Crandall 1964), and have been observed waking at 5:30 a.m. in Doi Dao, Thailand (Carpenter 1941). After traveling from tree to tree and feeding for a large portion of the day, the wild gibbons of Doi Dao would move to a sleeping tree
where they were asleep by sundown, resting anywhere from 10 to 11 hours (Carpenter 1941). Bartlett (2009) most recently published research on wild gibbon activity budgets in Khao Yai, Thailand. Table 1 shows the average frequencies of the activities engaged in by the Khao Yai gibbon study groups (Bartlett 2009), where it is apparent that feeding occupies much of these gibbons’ time, with resting and traveling as close seconds. While vocalizing is considered by many to be a form of social activity, Bartlett (2009) recorded it as a separate activity (Table 1).

<table>
<thead>
<tr>
<th>Type of activity</th>
<th>% time engaged per day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeding</td>
<td>32.6</td>
</tr>
<tr>
<td>Resting</td>
<td>26.6</td>
</tr>
<tr>
<td>Traveling</td>
<td>24.2</td>
</tr>
<tr>
<td>Social activity</td>
<td>11.3</td>
</tr>
<tr>
<td>Vocalizing</td>
<td>4</td>
</tr>
</tbody>
</table>

**Table 1.** Activity budgets of white-handed gibbons in Khao Yai, Thailand (Bartlett 2009)

The most important form of social interaction among gibbons is grooming (Bartlett 2009). For his research in Khao Yai, Bartlett divided the social interactions of gibbons into sub-classes, two of which are groom and play (Table 2). Most of the grooming was performed by adult members of the group (Bartlett 2009).

<table>
<thead>
<tr>
<th>Type of social activity</th>
<th>% time engaged per day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groom</td>
<td>6.2</td>
</tr>
<tr>
<td>Play</td>
<td>4.1</td>
</tr>
</tbody>
</table>

**Table 2.** Two types of social activity

Play behavior occurs in both wild and captive gibbon populations, though it is restricted mainly to juveniles (Bartlett 2009; Carpenter 1941; Chivers 1972). Chivers (1972, 123) described the playful behaviors of juvenile gibbons as, “modifying their locomotion and...elaborations of usual postures.” Bartlett (2009, 50) employs the colorful language of “chasing, wrestling, slapping and biting” to describe the behavior of playful gibbons. Play behavior decreases in juvenile gibbons as they approach sexual maturity (Carpenter 1941).

**Captive Gibbon Activity Budgets**

There has not been much of a record on captive white-handed gibbon activity budgets, aside from the work of Ng (2004). The research done by Ng focused on the activity budgets of captive gibbons in a Thailand sanctuary before and after implementing an environmental enrichment program. Ng (2004) found that the gibbons were resting 70% of the day prior to the introduction of an enrichment program. After enrichment was provided, Ng
reports an increase in “species-typical” activity, in that the gibbon’s activity budgets were closer to those seen in wild populations.

**Captive Environment**

There are two main types of captive gibbon environments: island and caged. Whether captive or wild, gibbons do not like to be in water and cannot swim (Carpenter 1941; Napier and Napier 1967). Carpenter’s research (1941) demonstrated the gibbon’s lack of swimming capabilities when he placed a female gibbon into a pool of water, and after some time of her failing to stay afloat, he retrieved her. With their aversion to water, gibbons will stay within a designated enclosure surrounded by a moat (Crandall 1964). Based on a survey of gibbon exhibits at zoos in China and Vietnam, Geissmann (1995, 6) wrote that, “Island settings with natural vegetation are not only extremely attractive to visitors but also come closer to imitating a naturalistic environment than most indoor enclosures.” The only problem that could occur in an island habitat would be if a gibbon were to accidentally fall into the water it would definitely drown, without human assistance (Crandall 1964).

As gibbons require more space than other non-human primates to move around in (Keeling and McClure 1972), the overall area of a caged habitat needs to be spacious enough to accommodate such movement. Providing the needed space for captive gibbons is not always possible if a zoo’s budget is unable to fund such construction (Ng 2004). In terms of the actual dimensions of an enclosure, the recommended size varies from 2.74 meters to 6.09 meters in length as well as height (Keeling and McClure 1972; Crandall 1964). Dahl (1989) recommends that actual and simulated branches be spread out at a proper distance for gibbons to perform ricochetal brachiation. Caged habitats should also include bars, poles, and perches to increase the captive primate’s activity area (Geissmann 1995).

**METHODOLOGY**

Both the Sacramento Zoo and the Oakland Zoo, two Northern California zoos, house a pair of white-handed gibbons (Table 3). White-handed gibbons, unlike other gibbons, are “asexually dichromatic,” meaning the coat color of males and females can be either black or buff (Bartlett 2009; Groves 2001). The gibbons at the Sacramento Zoo include a buff male (Figure 1) and his black daughter (Figure 2); at the Oakland Zoo, the adult male (Figure 3) and female (Figure 4) gibbons are both black. In their wild habitats, white-handed gibbons protect a sizable territorial range of 12 to 53.5 hectares, with a day range of approximately 1,490 to 1,600 meters (Rowe 1996). They are considered to be more territorial than many other primates (Bartlett 2009).
Individual | Photo | Age (yrs) | Zoo         | Relationship   
--- | --- | --- | --- | --- 
Buff male | Fig. 1 | 38 | Sacramento | Father 
Black female | Fig. 2 | 22 | Sacramento | Daughter 
Black male | Fig. 3 | 26 | Oakland | Pair-bonded 
Black female with shaved spot | Fig. 4 | 28 | Oakland | Pair-bonded 

Table 3. Description of study subjects

Figure 1. Male gibbon at Sacramento Zoo (2010)  
Figure 2. Female gibbon at Sacramento Zoo (2010)  
Figure 3. Male gibbon at Oakland Zoo (2010)  
Figure 4. Female gibbon at Oakland Zoo (2010)

Research Sites
The enclosure at the Sacramento Zoo is a large cage structure (Figure 5) that measures 7.92 meters long, 4.27 meters wide and 4.88 meters high. The habitat at the Oakland Zoo is an island (Figure 6) measuring 16.76 meters by 10.97 meters, with trees close to 7.62 meters high. It is surrounded by a moat
approximately 3.05 meters wide. Both of the white-handed gibbon habitats in the zoos featured in this study have an indoor structure to which the primates can retreat to escape noisy crowds or poor weather conditions, and both zoos provide branches or poles from which the gibbons can suspend themselves.

Figure 5. Gibbon habitat at Sacramento Zoo (2010)

Figure 6. Gibbon island habitat at Oakland Zoo (2010)

There are various types of enrichment items in each habitat as well. The white-handed gibbons at the Sacramento Zoo have hammocks, ropes, grass
and other hanging flora, and a mirror with which they can interact. The gibbons at the Oakland Zoo have many trees, bushes, rock structures, and woven baskets. A mirror was incorporated into the habitat in late April 2010.

**Recording Methods**

Martin and Bateson (2007) state that there is a distinct difference between recording methods and recording media. The “method” is the manner by which the behavioral information is gathered. The “medium” is the physical device that will be employed to collect the data. In order to identify any variation between the two captive white-handed gibbon populations in the present study, visual observations were taken. Throughout the months of April and May 2010, a total of 30 hours of observations were recorded. Considering the scope of this project, the component reported here is a preliminary survey designed to gauge if further research would be warranted.

Data were collected using instantaneous scan sampling at predetermined intervals. Martin and Bateson (2007, 50) define “instantaneous scan sampling” as when “a whole group of subjects is rapidly scanned, or censused,” at regular intervals and the behavior of each individual at that instant is recorded.” At the end point of each interval, the observer notes the activities performed by the animals. Ng (2004) employed the instantaneous scan sampling method on captive gibbons. Based on this, instantaneous scan sampling was used to record 12 activities performed by the gibbons (discussion follows). Observations were made at 30-second intervals in the space of 10 minutes. Primate observations recorded as “out of sight” for 10 consecutive intervals were eliminated from the data set, as studying activity budgets requires the subject to always be in view.

**Recording Medium**

Observations were recorded by hand on the Checklist of Activities (Appendix A), using the a personally developed Ethogram (Appendix B). Patterson (1992, 115) describes the ethogram as “a catalog of an animal’s behavioral repertoire, essentially a listing of the forms of behavior displayed by an animal.” In the case of the present research, the checklist is a simple and concise way to record what activity is occurring.

**Data Analysis**

Frequency statistics were generated for each observed behavior by dividing the count for each activity by the total of all activities. The frequency data were examined by first comparing differences in activity budgets between the male and females in each zoo. Second, the activity budgets of the males in both zoos and those of the females in both zoos were compared. These first two analyses were performed to understand the basis for differences in the subsequent comparisons between zoos. Thus, the third comparison between
zoo involved activity budgets based on the combined male/female data sets. Finally, the budgets for the captive samples were contrasted with the budgets reported for wild gibbons (Bartlett 2009).

**RESULTS**

Data were collected for 15 hours between April 1, 2010 and May 12, 2010, at the Sacramento Zoo and for 15 hours between April 6, 2010 and May 2, 2010, at the Oakland Zoo. The researcher recorded 3,475 data points (observations) at the Sacramento Zoo and 3,410 data points at the Oakland Zoo.

The female and male at the Sacramento Zoo differed in their activity budgets (Table 4). Regarding feeding, the female gibbon fed 40% more than the male. When it came to traveling, the male gibbon traveled 25% more than the female gibbon and, in turn, the female spent 20% more of her time resting compared to the male. The male gibbon groomed himself three times more often than the female gibbon and vocalized twice as often. Both gibbons spent 3% of their time interacting with their environment.

<table>
<thead>
<tr>
<th>Zoo</th>
<th>Sex</th>
<th>Feed</th>
<th>Travel</th>
<th>Rest</th>
<th>Self-groom</th>
<th>Vocalize</th>
<th>Environ. Inter.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sacramento</td>
<td>Male</td>
<td>6</td>
<td>12</td>
<td>56</td>
<td>15</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>10</td>
<td>9</td>
<td>65</td>
<td>5</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Oakland</td>
<td>Male</td>
<td>3</td>
<td>25</td>
<td>57</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>5</td>
<td>9</td>
<td>43</td>
<td>7</td>
<td>2</td>
<td>22</td>
</tr>
</tbody>
</table>

Table 4. Frequency of activity by sex per zoo

The individual gibbons at the Oakland Zoo also differed in their activity budgets (Table 4). The female fed nearly twice as often as the male gibbon. The male gibbon traveled nearly three times as often as his female counterpart. The male rested 25% more than the female gibbon who groomed herself seven times more often then did the male. The female vocalized while the male did not. Their environmental interaction frequencies also were very different, as the male did not interact with his environment frequently, while the female spent over 20% of her time doing so.

A comparison of the males from the two zoos yielded some interesting differences (Table 5). With regard to feeding, the Sacramento Zoo male fed twice as much as the Oakland Zoo male who, in turn, traveled twice as much as the Sacramento Zoo male. The males had similar resting frequencies. The Sacramento Zoo male engaged in self-grooming fifteen times more than the Oakland Zoo male. Vocalization was not displayed by the Oakland Zoo male, while the Sacramento Zoo male spent a small amount of his time
vocalizing. The Sacramento Zoo male was three times more interactive with his environment than the Oakland Zoo male.

<table>
<thead>
<tr>
<th>Sex</th>
<th>Zoo</th>
<th>Feed</th>
<th>Travel</th>
<th>Rest</th>
<th>Self-groom</th>
<th>Vocalize</th>
<th>Environ. Inter.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>Sacramento</td>
<td>6</td>
<td>12</td>
<td>56</td>
<td>15</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Oakland</td>
<td>3</td>
<td>25</td>
<td>57</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Female</td>
<td>Sacramento</td>
<td>10</td>
<td>9</td>
<td>65</td>
<td>5</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Oakland</td>
<td>5</td>
<td>9</td>
<td>43</td>
<td>7</td>
<td>2</td>
<td>22</td>
</tr>
</tbody>
</table>

Table 5. Comparison of activity budgets by sex

A comparison of the females from the two zoos also yielded some interesting differences (Table 5). The difference in feeding frequencies of the females was identical to what was seen for the males: that is, the Sacramento Zoo female fed twice as much as the Oakland Zoo female. While the females were identical in how much they traveled, the Sacramento Zoo female rested a third again more than did the Oakland Zoo female. Both females groomed themselves, with the Oakland female doing so 30% more than the Sacramento Zoo female. The Sacramento Zoo female vocalized one half as much as the Oakland Zoo female. The Sacramento Zoo female did not interact nearly as much with her environment as did the Oakland Zoo female, who was seven times more interactive with her environment.

The differences in the activity budgets of the two zoo samples (Table 6) were driven by the contributions of either: (1) both sexes, (2) the males, or (3) the females. Those differences in budgets affected by both sexes included the activities of feeding, social behavior and vocalizations: the Sacramento Zoo individuals fed and vocalized twice as often as their Oakland Zoo counterparts, while the Oakland Zoo individuals socialized nearly twice as often as those at the Sacramento Zoo. The differences in budgets affected primarily by the males included the activities of traveling and self-grooming: the Oakland Zoo male traveled nearly twice as often as the Sacramento Zoo male, while the latter self-groomed more than twice that of the Oakland Zoo male. The differences in budgets affected primarily by the females included the activities of resting and environmental interaction: the Sacramento Zoo female rested more than the Oakland Zoo female, while the latter engaged more with her environment.

<table>
<thead>
<tr>
<th>Zoo</th>
<th>Feed</th>
<th>Travel</th>
<th>Rest</th>
<th>Self-groom</th>
<th>Social</th>
<th>Vocalize</th>
<th>Environ. Inter.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sacramento</td>
<td>8</td>
<td>10</td>
<td>60</td>
<td>10</td>
<td>7</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Oakland</td>
<td>4</td>
<td>17</td>
<td>50</td>
<td>4</td>
<td>12</td>
<td>1</td>
<td>11</td>
</tr>
</tbody>
</table>

Table 6. Comparison of activity budgets by zoo samples
There were differences between the captive gibbons and those studied by Bartlett in 2009 (Table 7). Bartlett’s study did not include any information on how the wild gibbons interacted with their environment, therefore, that activity is dropped in this comparison.

<table>
<thead>
<tr>
<th>Population</th>
<th>Feed</th>
<th>Travel</th>
<th>Rest</th>
<th>Social</th>
<th>Vocalize</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sacramento</td>
<td>8</td>
<td>10</td>
<td>60</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Khao Yai</td>
<td>33</td>
<td>25</td>
<td>27</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>Oakland</td>
<td>4</td>
<td>17</td>
<td>50</td>
<td>12</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 7. Captive population compared with wild population

The Sacramento Zoo population fed one quarter as much as the Khao Yai gibbons and the Oakland Zoo one-eighth as much. The Sacramento Zoo gibbons traveled less than half as often as the Khao Yai gibbons, while the Oakland Zoo gibbons traveled nearly three quarters as much. Both captive gibbon populations rested more than twice that of the wild gibbon population. The frequency of socializing between the Oakland Zoo individuals is comparable to that of the Khao Yai gibbons, although that is not the case for the Sacramento Zoo individuals. Finally, the Khao Yai gibbons vocalized much more often than either of the captive populations.

DISCUSSION

The guiding question underlying this investigation had to do with whether differences in the size and quality of the gibbon enclosures at the Sacramento and Oakland zoos would affect the activity budgets of the individuals housed there. The activity budgets of gibbons studied in the wild, specifically in Khao Yai, Thailand, were used to evaluate the differences in the captive animals’ activity budgets.

The most salient (or interesting) differences seen between the two zoo populations had to do with their frequencies of self-grooming, social interaction and environmental interaction. Specifically, the Sacramento Zoo gibbons self-groomed more, perhaps as a function of their lower frequency of social interaction in comparison to the Oakland Zoo gibbons. Additionally, the Oakland Zoo gibbons engaged in much more environmental interaction, perhaps because their environment was more stimulating, due to the higher level of enrichment provided for them. The activity budgets generated for both captive populations also demonstrate that the Sacramento Zoo gibbons showed more resting than traveling behaviors than their Oakland Zoo counterparts. The Oakland Zoo gibbons have twice as much space in which to travel and that could be the reason that they travel more than the Sacramento Zoo gibbons.
When comparing the activity budgets of the captive populations with the budget of those in the wild some major differences emerged. The wild population traveled and fed much more than did its captive counterparts and, as a consequence, it also rested much less. Interestingly, it was the activity budgets of the Oakland Zoo gibbons that were more similar to those of the wild gibbons, particularly with regard to the amount of time spent traveling and interacting socially. This strongly suggests that the more spacious and stimuli-filled habitat at the Oakland Zoo enables its gibbon inhabitants to retain a more naturalistic activity budget.

Much of Bartlett’s (2009) work on the wild gibbons of Khao Yai was on the primates’ need to travel and hold a large territory in order to utilize food resources. Since the captive gibbons do not need to travel great distances to access food resources, they have a less immediate need to keep moving. As the captive gibbons’ habitats are considerably more finite than the hectares of open territory wild gibbons enjoy, habitats also appears to affect the gibbons resting and traveling frequencies. If the captive habitats at both zoos were larger, there would be a chance for more traveling and ranging behavior in the captive populations.

LIMITATIONS
One of the limitations of this research was the insufficient number of hours of observation. More hours of observation would be beneficial in order to better assess differences or similarities between the two captive gibbon populations and wild gibbon populations. Another limitation of this research was the need for more zoos to be sampled. With more captive zoo and wild samples, better comparisons could yield further evidence of how a captive gibbon’s habitat can affect its activity budgets.

FUTURE RESEARCH
As suggested previously, the first step in advancing the present research would be to incorporate more observation time. Conducting a survey of more than two captive gibbon populations would increase the potency of the data comparisons. Studying three or four captive island populations and three or four captive caged populations would lend much needed depth to the research. With more hours of observations at a greater number of captive environments, the number of wild population data would also need to be increased. Locating more wild population data could prove difficult, but doing so would be immensely beneficial to understanding the activity budgets of white-handed gibbons and how those budgets do or do not transfer to captive populations.
Designers and builders of captive gibbon enclosures need to consider that primates housed in small cages, which restrict activity, can suffer generalized muscular weakness within relatively short periods of time (Keeling and McClure 1972). In response to an increase in concern for captive animal welfare, there has been a shift to building more expansive environments that simulate the animals’ natural environments (Ng 2004). Further research could provide more information to designer, builders, and zoo management about the need for captive gibbon enclosures to be more conducive to the primates’ healthy activity budgets as observed in the wild.

CONCLUSION

The present research is but a small portion of a larger project from which the white-handed gibbon will benefit, whether in a captive or native environment. The Oakland Zoo promotes conservation as a major factor of its institution. The Oakland Zoo gibbons displayed more normal activity budgets, though the Sacramento Zoo gibbons fed and vocalized more often. The Oakland Zoo gibbons’ traveling and resting periods were more similar to those of the wild Khao Yai gibbons’. The more normal activity budgets of the Oakland Zoo gibbons could be due to the fact that their habitat is twice as large as the Sacramento Zoo’s habitat and more naturalistic. If the gibbons at the Sacramento Zoo had an exhibit double in size and full of trees, their activity budgets would most likely match those at the Oakland Zoo. The Sacramento Zoo has less space for their captive gibbons, but cannot increase its limited square footage to, in turn, increase habitat dimensions. Enhancing each captive primate’s habitat becomes very difficult when a zoo is not able to acquire the land to do so.

This present research shows that gibbon enclosures worldwide need to be studied to identify and provide healthier and most natural habitats for captive white-handed gibbons. Information collected from each captive gibbon population should be shared to increase the knowledge of how captive gibbons need to be housed to best simulate their wild habitat and, thereby, create more species-typical activity budgets. When data on both captive and wild gibbons’ activity budgets are compared and applied under such improved circumstances, captive populations should see a normalization in their activity budgets.
## Appendix A: Checklist of Activities

<table>
<thead>
<tr>
<th>Interval</th>
<th>Substrate</th>
<th>Solitary Activity</th>
<th>Social Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TRL</td>
<td>ARB</td>
<td>DS</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### APPENDIX B. ETHOGRAM

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terrestrial (TRL)</td>
<td>Any activity performed on the ground or rock structures.</td>
</tr>
<tr>
<td>Arboreal (ARB)</td>
<td>Any activity performed off ground; on trees, poles, ropes, perches.</td>
</tr>
<tr>
<td>Out of Sight (OS)</td>
<td>Primate is behind foliage or has gone indoors.</td>
</tr>
<tr>
<td>Walk/Run (WKR)</td>
<td>Any bipedal locomotion.</td>
</tr>
<tr>
<td>Brachiate (BRC)</td>
<td>Swinging, jumping, or climbing locomotion.</td>
</tr>
<tr>
<td>Rest (RST)</td>
<td>Reclining, lying, sitting, hanging.</td>
</tr>
<tr>
<td>Groom (GRM)</td>
<td>Picking stuff out of hair, methodical scratching, cleaning lips with hand or tongue.</td>
</tr>
<tr>
<td>Feeding (FED)</td>
<td>Holding or eating food.</td>
</tr>
<tr>
<td>Inspect (INS)</td>
<td>Using hands, feet, or nose to inspect object or other primate.</td>
</tr>
<tr>
<td>Touch (TCH)</td>
<td>Touching another primate w/ hand, foot, or head. (Not GRM, SEX, PLY).</td>
</tr>
<tr>
<td>Play (PLY)</td>
<td>Chasing, slapping, biting, or wrestling.</td>
</tr>
<tr>
<td>Sexual (SEX)</td>
<td>Any sexual activity.</td>
</tr>
</tbody>
</table>
REFERENCES


