Emotions have often been characterized as the "animal-side" of human behavior (Panksepp & Panksepp, 2000). As such, one might expect them to be universal and biologically driven. Yet, there is significant disagreement among researchers and disciplines about human emotions. In somatic feeling theory, emotions are biologically determined and certain automatic physiological responses are produced in specific contextual cues. Appraisal theory, in contrast, states emotions are determined by sets of appraisals (judgments) to situations. In addition to this disagreement, the idea that emotions are cognitive processes is open to debate. ...

However, there are very big gaps ignored by these two emotional theories. Somatic feeling theory focuses on automatic biological changes. However, those automatic changes cannot be pinpointed to a specific emotion. For example, higher heart rates can be a sign of happiness such as first kiss. It also can be a sign of nervousness such as taking a very important exam. Therefore, higher heart rate does not specify or map to a specific emotion. Then, somatic changes have to be somehow mapped or connected to situations. Appraisal theory, on the other hand, focuses on judgments on situations. However, situations alone cannot be pinpointed to a specific emotion. Therefore, judgments about the situations are necessary. For example, you see someone hitting somebody. You feel angry toward the person hitting. However, this same situation can induce a different emotion, such as happiness, depending on what the hit person did to you beforehand. ...

The goal and purpose of my research is to determine how culture and language shape the way we feel and categorize contextual cues. Here, I discuss three experiments that I am or will be conducting. ...

In one part of my first experiment, I conducted the study to examine how Japanese and English emotional terms cluster differently (categorization of emotional terms). This was done by examining the language structure of emotional terms with respect to the judgment. First, the table

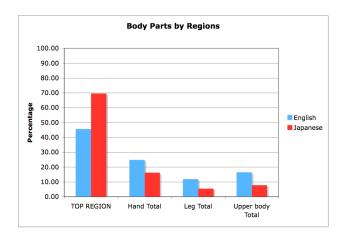
of basic emotion theorist with emotional terms that each theory thought as basic and universal emotions (Ortony & Turner, 1990) was used. 35 emotional terms, such as anger, rage, joy, and so on were ranked ordered based on how many times showing up on the theory table. Mothers in each culture were asked to translate each word to the word that they commonly use toward their children. For example, joy was translated into happy, sorrow was translated into sad, and so on. Because of repeated word on certain emotional terms, such as joy and pleasure were translated into happy, 31 emotional terms and 32 emotional terms were used for this experiment.

Participants were 50 English-speaking adults residing in the U.S. and 50 Japanese-speaking adults residing in Japan. They were asked to freely associate each emotional term to a body part term.

The body part terms were used because past research (Ameka, 2002) indicates that body parts as universal metaphors for emotional expressions. By using these perhaps culturally specific metaphors, one can probe the similarity structure of emotional terms in two cultures. For example, if shame and fear are semantically related concepts in Japanese but not English they should be more similar in the space of basic emotions (as proposed by Ekman, 1984).

The result of this study shows some interesting patterns of language differences. 70% of Japanese emotional terms are associated with the head region of body (including head, face, and neck) where as only 44% of English emotional terms are associated with the same region. English emotional terms are associated with hand region (including hand, arm, shoulder) more than Japanese emotional terms. First, my prediction about differences in contents of categories might be true. In English, they included more hands that they use to act out the emotion whereas in Japanese, they show more on head region implying that expression of emotions occur mostly on head region (most likely on faces) and rarely act out the emotion. For example, in English, anger was strongly associated with hand region where as in Japanese, anger was associated with head region of body. This shows that in English, anger needs to be acted out whereas in Japanese, anger can be just a feeling that expressed mostly on faces. Also, this result suggests that emotional terms and accumulated associations to body parts by adults are different in two

languages. At last, there might be perceptual differences in emotional expressions in two cultures. In Japan, people might express emotions in faces more than in the U.S. This result also suggests that there might be different association processes between body parts and emotions in two cultures. This study shows important differences in how language and culture might influence the process of emotional association between contextual cues and physiological reactions. Also, this study proves that the contents of "emotion" as a category might differ in each culture.



Proposed experiment 2 concerns how we categorize contextual cues and how those differences might make us feel differently in the same situation. The question is if the same contextual cues are given to Japanese and English-speaking person, do they express the same emotion or different emotion? Mothers with their young children will be presented puppet shows depicting an emotionally laden scene. For example, an actor may be building a tower and then another actor may come along and knock it over. Mothers in each culture will be asked to talk about the scenes that they just saw with their children. Planned measures include (1) the emotional terms parents use to describe and explain the event and (2) the perspective taken –that of the perpetrator of the victim. My hypothesis is that Japanese mothers may talk differently and pay attention to different actors than English mothers may do. ...

The third experiment I will conduct is about traits. Traits are the categorized character of a person that usually stable across situations. If emotional terms influence the way we categorize

situational cues and talk about things, then it should influence the way we perceive categorization as well. We will be examining whether Japanese children might be more sensitive to situational cues than American children. Because of harmonious culture, Japanese children might be trained to pay attention to others more often than American children. Also, language might influence the way we categorize people by emotions. In the U.S., people often talk about other people as "she is a happy person" as a stable character of the person. No matter what happens to her, she is still a "happy person" as a default. Therefore, even "she" may not be happy at the moment, she is in general a happy person. Whereas in Japan, we do not talk about people's characters as much when we talk about emotional terms. Emotional terms are used for temporal and situation specific moment, such as "she is happy right now because she got a gift". If this is true, Japanese children should be paying more attention to situations whereas American children pay less attention to situation.