Trait or Situation?
~ Cultural Differences in Judgments of Emotion ~

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Abstract

Traditional research in cognition assumes that fundamental processes such as memory and attention are universal. However, a growing number of studies suggest cultural differences in the attention and evaluation of information (Masuda & Nisbet 2001; Maass, et al 2006; Markus & Kitayama 1991; Heddenn, et al 2008). One cultural comparison, between Westerners, such as Americans and Easterners such as Japanese suggest that whereas Westerners typically focus on a central single object in a scene Easterners often integrate their judgment of the focal object with surrounding contextual cues. The research reported here considers this cultural difference in the context of children's developing understanding of emotions. The results demonstrate cultural differences in children as young as 3 and 4 years of age. In particular, Japanese children judge emotions based more on contextual information than facial expressions whereas the opposite is true for American children. The addition of language (labeling the emotions) increases the cultural differences.

Introduction

Traditional research in cognition assumes that fundamental processes, such as memory and attention are universal. However, other evidence suggests that these fundamental processes may themselves be influenced by experience and cultural context. Understanding if and how this is so is essential to understanding human intelligence and to building artificial agents who can successfully engage with individuals in different cultures. The research reported here concerns the attention and memory in the context of social stimuli and shows that they are apparent in children as young as preschoolers.

The starting point for the work is more general hypotheses about how cognition and attention differ among individuals in western (e.g., American) versus eastern (e.g., Japanese) cultures. Markus & Kitayama (1991) hypothesized that there were broad differences in attention to and interpretation of events construal in the two cultures. They suggested that an "independent construal" often characterizes thought in western culture, which consists of a focus on uniqueness, individuals, and independence. In contrast, they suggested that an "interdependent construal" often characterizes thought in eastern cultures; here there is a focus on harmony, relationships, and the connectedness of individuals.

One study that illustrates these cross-cultural differences in memory and attention was reported by Masuda & Nisbet (2001). They showed American and Japanese college students underwater scenes and asked them to describe what they had seen. They found that Americans talked and focused more on the focal objects whereas Japanese talked about the relationship among objects. Interestingly, by changing a background, Japanese students even had very difficult time remembering whether they had seen the focal objects before; instead, Japanese participants paid more attention to and remembered the situational/contextual cues (color of water, background plants) than the American population did. Finally, consistent with the proposal of broad and fundamental differences in attention, Hedden, et al. (2008) showed that there were cross-cultural differences in activation of the left inferior parietal lobule and right precentral gyrus between people from western cultures and people from eastern cultures when engaging in the simple visual judgment task.

Emotion

The general difference between "independent" and "interdependent" construals may also relate to two different approaches to thinking about personality and emotion. One can think of emotions as transient states that shift with context; for example, one can be happy because one has gotten a present or one can be scared because there is

a frightening snake nearby. Or, one can think of emotions as stabilized tendencies like personally traits; for example, Mary might be a happy person whereas John might be a "scaredy-cat." Here is our question: Do individuals from eastern cultures interpret emotional expressions in a more context-like way (happy because of the context) but do individuals from western cultures interpret emotional expressions in a more trait-like way (happy because he is a happy kind of person)? And, when in development do such differences emerge?

There are some hints in the literature that these cultural differences in interpreting emotional expressions do exist. For example, Maass et al. (2006) found that westerners describe and memorize people using trait-like adjectives whereas easterners use behavior-descriptive verbs. Similarly, Cousins (1989) found cross-cultural differences in self-description based on contextual cues. He asked Japanese and American high school and college students to fill out the twenty-statement test about self-perception. He conducted the free form – without contexts and the contextualized version – with context of this test. In the free form condition, Japanese students gave more enduring roles, such as "I am a student" whereas American students gave more personality traits, such as "I am friendly". In the contextualized version, the result reversed. Japanese give personality traits when talking about transient and context specific aspects of self whereas Americans give personality traits when talking about enduring aspects of self. There is almost no evidence concerning these issues with children, although Yuill (1997) reported that young children in England tended to perceive characteristics such as grumpy, shy, fussy, mean, fat, and thin as a stable character.

All together these results suggest the possibility that cross-cultural difference in focal versus more contextual evaluation of information may also be seen in judgments of emotion and that these differences may begin at a young age.

Language and thought

Traditionally, researchers thought that language and thought went through the predetermined course in the mind. Because of this tradition, researchers thought that there should not be cross-cultural differences in how languages shape the mind, such as how we view the world.

However, there has been renewed interest in the how different languages capture different regularities in the world and how language cues attention, creating systematic differences in speakers of different languages (Boroditsky, 2001; Yoshida, H. & Smith, L. B., 2003). Within the context of the larger cross-cultural differences between western and eastern individuals, then, the question emerges as to whether emotion labels in the western and eastern languages have different implications. When an individual is labeled as "happy" in English, does that imply a stable tendency to be happy? When an individual is labeled as "happy" in Japanese, does that imply a transient context-specific emotion that is not predictive of future states?

Questions

Understanding the development of cross-cultural differences in cognition (and social judgments) would seem to be a first step to understanding the underlying mechanisms. Accordingly, this research was designed to answer three questions:

(1) Are Japanese children's judgments of emotion more situationally and contextually based and are American children's judgments more trait-like?
(2) Are these differences evident in preschool children?
(3) Does adding language – explicit labels of emotions –increase these cross-cultural differences?

Experiment 1: Context Effect

Method

Rationale. Each trial consisted of two phases: a familiarization phase and a test phase. On the familiarization phase, the child was shown a picture of a cartoon person with an emotional expression. That picture was then removed. Then in the test phase –in a manner consistent with some early childhood puzzles – the child was shown the body of that cartoon person and asked to select the appropriate head (and put it on the body) –from a set of 4 heads. The question was whether the child would select the head with the same emotional expression or a different one and whether this would depend on the context in which the person was presented during familiarization and test. That context could be either neutral (not associated with any particular emotion) or context laden (and associated with either a positive or negative emotion). The prediction was that American children would pick the same emotional expression but the Japanese children would shift to the face appropriate to the emotional context.

Subjects

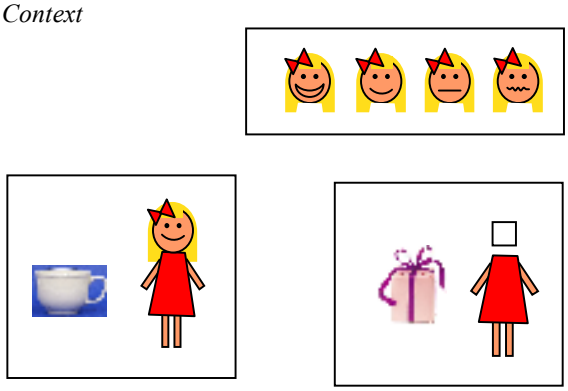
The participants are 64 children residing in Yamanashi, Japan and Indiana, USA. We have 27 English-speaking children and 24 Japanese-speaking children for this analysis. The mean age of English

speaking children was 50.61 months and Japanese-speaking children was 49.84 months ranging from 40 to 60 month olds. The gender of participants was about equally distributed in both populations.

Stimuli

The laminated pictures of a cartoon figure and contextual cue (object that signifies specific emotion or neutral object) were used for this experiment. There were paired pictures of the same character. First pair was shown to children as an introduction of the character with his/her name. The other pair was shown later to children did not have a face, but the card has a Velcro that children can put the face on to complete the picture. Four choices of head were laminated individually and cut in the round shapes with Velcro on the back. Those choices are on the form with strip of Velcro to put them in line randomly.

Figure 1
Example: Neutral Context to Emotionally Laden Context



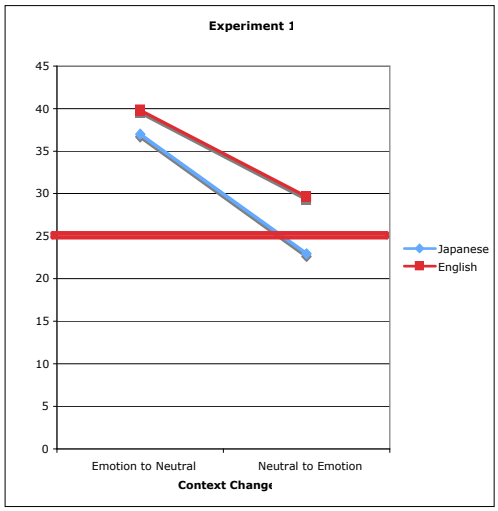
Procedure

Children were shown the first laminated picture to introduce a character, such as "This is Tiffany" in English and *"kore ha Yuko-chan dayo"* in Japanese. Here, we did not say anything about context or emotional expression of the character. Then, children were asked to put the laminated card into the box face down. This was done so to give enough time for children to look at the picture. Then, another laminated card was given to them with four faces with different facial expressions on the strip. Children were asked to pick one of the expressions, such as "Pick Tiffany's head" in English and *"Yuko-chan no atama wo erande"* in Japanese. Children would put the face of their choice on the Velcro and were asked to put the card with head choice in the box.

Results

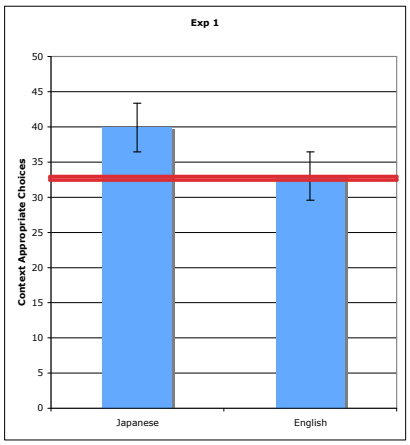
The first measure considered was the "stay" responses, the likelihood that children picked the same facial expression in the introduction context. Overall, English-speaking children picked the face with the same emotional expression more than Japanese speaking children and they did so for both shifts from emotional to neutral contexts and for shifts from neutral to emotional contexts as shown in Figure 2. The likelihood of choosing the same expression is much greater in both groups when the initial context is emotionally laden which suggests that children in both groups did attend to context. A second measure examined children's choice of the emotionally correct facial gesture given that they shifted. Japanese children chose this face more than did American children (40% in Japanese and 33% in American children).

Figure 2
Graph of stay responses with contextual changes



These results clearly show early cross-cultural differences in children as young as 4 years of age. American children's choices of the face are unaffected by context whereas Japanese children's judgments are. These differences are consistent with attention to the focal object versus more distributed attentional differences that have been reported earlier in adults from these two cultures. They are also consistent with a more trait versus situation construal of emotions. Experiment 2, which replicates the finding in the context of linguistic cues provides further evidence.

Figure 3
Graph of context appropriate choice given they shifted



Experiment 2: Effect of Language

If the terms used to describe a person's emotion have different effects in different languages, then, adding words might increase the magnitude of the effects observed in Experiment 1. To test this, we replicate Experiment 1 using only the Strong to Neutral context condition, the condition in which children in both cultures often select the original expression. Will labeling the face in the familiarity phase with an emotion term make the Japanese children more likely to choose a face with a less emotional expression when the context shifts to an emotionally neutral one? If emotion words in Japanese imply a transient state, it should. Will such labeling make English-speaking children even less likely to shift? It should if English emotional terms imply trait-like characteristics.

Method

The experimental method was identical to the experiment 1 except that we only used the emotionally laden to neutral context change.

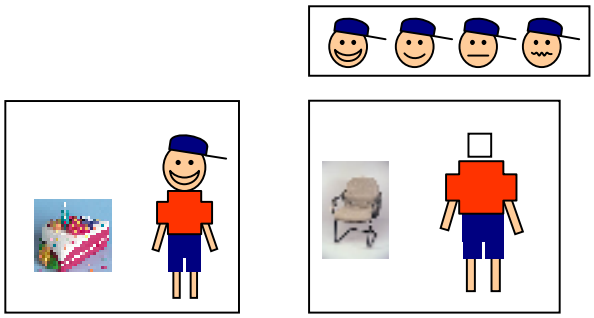
Subjects

The complete experiment will have 48 children residing in Yamanashi, Japan and Indiana, USA. We have 19 English-speaking children and 21 Japanese-speaking children for this analysis. The mean age of English speaking children was 50.26 months and Japanese-speaking children was 50.62 months ranging from 40 to 60 month olds. The gender of participants was about equally distributed in both populations.

Stimuli

Same stimuli from experiment 1 were used in experiment 2.

Figure 4
Example: Change from Emotionally Laden Context to Neutral Context



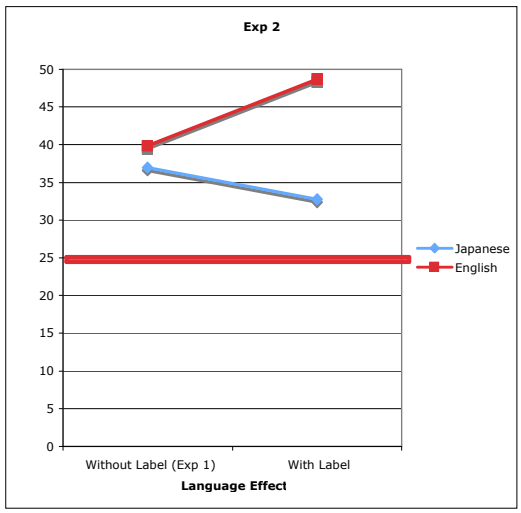
Procedure

Procedure was exactly same as the Experiment 1 except that children heard the explicit label for the emotional expression of the character. For example, when we introduced a character by saying "This is David. David is happy." in English and *"kore wa Wataru kun dayo. Wataru kun wa ureshii n dayo."* in Japanese. Here, we did not say anything about contextual cues.

Results

The dependent variable here was again the likelihood of a stay response that is choosing the same face. The results (to date) suggest that the added emotional terms substantially increased the group differences with Japanese children much less likely to choose the face with the same emotional expression than the American children.

Figure 5
Graph of stay response comparing labeling effects



The result suggests that emotional terms in English and Japanese have different meaning when it is labeled to describe a person. In English, the label will have an enduring, trait-like tendency for emotional judgment of the person whereas in Japanese, the label will have a transient, context dependent on emotional judgment of the person.

General Discussion

The method we used here is an interesting new way of testing children for context sensitivity in judgment of emotion. These results showed that there is a cross-cultural context sensitivity differences in judgment of emotion in children by age 40 months. Japanese-speaking children were attentive to emotionally laden context, relevant for emotional judgment. In addition, terms that we use to talk about a person have a different effect in two cultures. English has an enduring, trait-like tendency to describe a person whereas Japanese seems to be more temporal and context bounded.

There are some limitations to this study. We observed this cross-cultural difference in attention to contextual cues. However, we are not sure whether these general cognitive styles may carry over into a variety of domains, such as language, and so on. Also, how much of this trend differ in cross-cultural differences in language and thought.

A further question is the underlying mechanism. Does the context cue, automatically prime an expression that then influences the Japanese participants choice? Or perhaps does the choice reflect a causal narrative imposed on the pictures. That is, Japanese-speaking children may be filling in the gap between the term and context. For example, when they hear “David is happy”, they may interpret this sentence as “David is happy because he has a present”. Therefore, the next step is to see whether if we give all information (name of the person, how the person is feeling, the context cue) to children, do they fill in the gap such that Japanese-speaking children and English-speaking children will respond in the same manner.

Understanding how individuals from different cultures differ in essential human skills, such as the judgment of emotional expressions, would help understand human intelligence in general and would be a necessary knowledge to build artificial intelligence that can engage with people from different countries in the cross-culturally appropriate way.

Acknowledgments

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Reference

Boroditsky, L. (2001). Does language shape thought? English and Mandarin speakers' conceptions of time. Cognitive Psychology, 43(1), 1-22.

Cousins, S.D. (1989). Culture and self-perception in Japan and the United . Journal of Personality and Social Psychology, 56(1), 124-131.

Hedden, T., Ketay, S., Aron, A., Markus, H.R., & Gabrieli, J.D.E. (2008). Cultural influences on neutral substrates of attentional control. Psychological Science, 19 (1), 12-17.

Maass, A., Karasawa, M., Politi, F., & Suga S. (2006). Do verbs and adjectives play different roles in different cultures? A cross-linguistic analysis of person representation. Journal of Personality and Social Psychology, 90(5), 734-750.

Markus, H.R. & Kitayama, S. (1991). Culture and the self: implications for cognition, emotion, and motivation. Psychological Review, 98(2), 224-253.

Masuda, T. & Nisbett, R.E. (2001). Attending holistically versus analytically: comparing the context sensitivity of Japanese and Americans. Journal of Personality and Social Psychology, 81(5), 922-934.

Yoshida, H. & Smith, L. B. (2003) Shifting Ontological Boundaries: How Japanese- and English-Speaking Children Generalize Names for Animals and Artifacts. Developmental Science, 6(1), 1-36.

Yuill, N. (1997). English children as personality theorist: Accounts of the modifiability, development, and origin of traits. Genetic, Social, & General Psychology Monographs, 123, 5-26