EXAMINING AFFECTIVE VALENCE IN JAPANESE AND BRAZILIAN CULTURAL PRODUCTS: AN ANALYSIS ON EMOTIONAL WORDS IN SONG LYRICS AND NEWS ARTICLES

Igor DE ALMEIDA and Yukiko UCHIDA

Kyoto University, Japan

Across cultures, emotions are valued differently. In East Asia, individuals avoid extremely positive or negative emotions, while in Latin America, individuals value positive emotions and dampen negative emotions. This paper investigates how these tendencies are present in cultural products across Japan and Brazil. We analyzed the valence of the emotion in song lyrics (Study 1) and news articles (Study 2). The analysis was based on a database of 1034 words that were previously validated in terms of valence (negative, neutral or positive). Results from both studies suggest that positive words are more frequently used in Brazil than in Japan, and neutral words are more frequently used in Japan than in Brazil. These results are consistent with the hypothesis that Brazilian culture is more likely to value positive emotions than Japanese culture.

Key words: culture, Latin America, East Asia, emotion, cultural products

INTRODUCTION

Positive and negative emotions are valued differently across cultures. Despite the conventional understanding that positive emotions are more valued across cultures, evidence suggests that the value placed on seeking positive emotions differs depending on cultural context.

For example, in East Asian contexts, positive emotions are mitigated as people seek and prefer mild and balanced emotions over intense emotions, as an ideal emotional state (Tsai, Knutson, & Fung, 2006). As a result, for Japanese contexts the definition of "happiness" is more likely to be "mild and calm," and this is because intense emotions are viewed as harmful to social relationships (Uchida & Kitayama, 2009). This compares to American contexts, in which happiness is defined as more of an "exciting" emotion (e.g., Uchida, Norasakkunkit, & Kitayama, 2004; Kitayama, Mesquita, & Karasawa, 2006). Specific to East Asians, there is also the belief that negative events will follow positive events and vice-versa (Ji, Nisbett, & Su, 2001). Thus, individuals tend to avoid intensely positive events, due to the belief that an intensely negative event may follow. Actually, Miyamoto and Ma (2011) showed that even in positive situations, Japanese show a greater tendency to dampen positive emotions in order to balance their feelings, compared to Americans.

So far, previous studies have mainly focused on emotional preferences between East Asian and Western cultural contexts. Due to the nature of this comparison, cultural differences in affect were interpreted as consistent with the independence and interdependence axis (Markus & Kitayama, 1991). As a result, interdependence was assumed to be related to mitigation of positive emotions, while independence to enhancement of positive emotions. However, this may not be true for all interdependence or independence oriented cultures (see San Martin et al., 2018), by including other interdependence oriented cultures such as Latin American cultures, alternate patterns may emerge.

Both East Asian and Latin American societies are considered to be cultures that foster interdependence. As such, the difference in preference for positive emotions can be examined without the factor of independence versus interdependence posing as a potential confound. Nevertheless, while interdependence is a common characteristic of both cultures, the way it manifests may differ. As stated above, in East Asian contexts, extreme emotions are regarded as potentially harmful to social relationships, but in Latin American contexts, showing strong positive emotions is seen as appropriate, especially in social situations. In Latin America, social relationships are promoted through vibrant positive emotions, therefore positive emotions are valued and encouraged over neutral or negative emotions. In particular, people are encouraged to boost and emphasize their positive emotions in positive situations and de-emphasize negative emotions in negative situations (Triandis, Marín, Lisansky, & Betancourt, 1984).

For example, in Mexico, being animated, happy, and glad, are related to success, while being sad is regarded as the principal determinant of psychopathology (Diaz-Loving, 2005). The main purpose of the studies presented here is to explore the differences in affect between Japan and Brazil through the analysis of cultural products.

Cultural Products

Previous studies predominantly relied on subjective emotional experience in order to measure cultural differences in emotions, therefore lacked in external validity. However, this limitation can be avoided through the analysis of cultural products (Lamoreaux & Morling, 2012).

Cultural products, such as books, religious texts and art, often reflect a society's cultural values through the culturally-imbued aesthetic of their creators. Cultural products are designed to attract as much attention as possible from audiences in a given cultural context, in particular by displaying cultural values. Cultural products that have been studied so far include media coverage (Markus, Uchida, Omoregie, Townsend, & Kitayama, 2006), textbooks, picture books (Imada, 2012; Tsai, Louie, Chen, & Uchida, 2007), and song lyrics (Rothbaum & Tsang, 1998; Dodds & Danforth, 2010). Song lyrics pose the advantage of containing greater emotional contents. For example, Rothbaum and Tsang (1998) compared romantic song lyrics from the US and China and found that Chinese song lyrics convey more depictions of love, negative expectations about relationships, and suffering than American song lyrics. Meanwhile media coverage can be considered generally as being more neutral, for instance a study from Uchida et al.

(2015) on the Japanese news coverage about the Great East Japan Earthquake of 2011, revealed that even in a moment that obviously evoked negative emotions, the news articles concerning the issue remained predominantly neutral. These intrinsic aspects of the products, combined with the cultural characteristics of the society in which the products were created, can be analyzed to better understand emotional differences across cultures. This neutrality described in the Japanese products was interpreted as a way of seeking balanced emotions. However, such analyses have not yet been conducted within a Latin American cultural context.

In the current research, we test our hypothesis that Brazilian cultural products convey more positive emotions than neutral and negative emotions, whereas Japanese cultural products convey more neutral, than negative and positive emotions.

Methods of Comparison Throughout the Studies

In order to compare valence in the song lyrics from each culture, we used the affective norms for English words (ANEW) database. The database contains 1034 words previously rated in terms of valence in a 9-point scale by people from the US (Bradley & Lang, 1999), and subsequently translated and adapted to Japan (Honma, 2014) and Brazil (Kristensen, Gomes, Justo, & Vieira, 2011). This word database is commonly used for studies about emotions in numerous ways, which include analysis of song lyrics (e.g., Kim et al., 2010) and the relationship between valence and arousal (Brainerd, 2018)[1].

The database creators suggest a classification of words into three groups based on the mean score of valence levels. These include: positive words (valence score of > 6, e.g., "friend", "home"), negative words (valence score of < 4, e.g., "illness", "terrible"), and neutral words (valence score between 4 and 6, e.g., "industry", "serious"; Bradley & Lang, 1999; Kristensen et al., 2011; see Table 1 for a comparison between adaptations).

For the current studies, what was called "mild" or "balanced" emotional words were considered as neutral words, and emotionally intense words were categorized as negative or positive. For each unit of analysis (song lyrics in Study 1 and news articles in Study 2), a word frequency list was created. For each of the frequency lists, we excluded words that were not present in the ANEW word lists, to create a filtered word list, one for song

Table 1.   Comparison between adaptations of the ANEW

Adaptation	Positive words	Neutral words	Negative words	Total	Words found in lyrics (Study 1)	Words found in news articles (Study 2)
Brazil	432	258	356	1046	834	433
Japan	386	334	297	1017	701	326

[1] The original ANEW and its adaptations also contain scores for arousal. However, the Brazilian Portuguese adaptation does not have enough words that could be classified as high arousal positive (scores > 6), which creates a great imbalance between adaptations, making cross cultural comparisons biased and overly complicated. Also, none of the authors of the original or adaptations clearly specified a way of classifying words based on arousal. For these reasons, we opted to focus our analyses on valence.

lyrics, and another for news articles. Within each filtered word list, the frequency of positive, neutral and negative words were calculated and divided by the number of all words analyzed. This produced a standardized score representing the proportion of positive, neutral and negative words (for each artist in Study 1 and each news article in Study 2)[2].

Data Treatment

Considering structural differences in Brazilian Portuguese and Japanese, each corpus were analyzed differently with respect to such linguistic differences. All data was processed using the R programming language.

For the Brazilian data, all verb conjugations with an equivalent in the ANEW list were reverted to their infinitive form. For example, words such as "*abraçando*" and "*abraçada*", "hugging" and "hugged", respectively, were changed to "*abraçar*", "to hug". Similarly, adjectives that have a feminine and a masculine form, for example "*agressiva*" and "*agressivo*", meaning "agressive", were changed to its masculine form. All text was then transformed into a word frequency list using the "tidytext" package (Silge & Robinson, 2016).

For the Japanese data, the "Rmecab" R package (Ishida, 2008) was used to process the data. Similar to Portuguese, conjugated verbs, adjectives and other words were reverted to their most basic form to create a word frequency list. Words used as suffixes were omitted from the analysis. For example, the character for person in Japanese (人) can mean person when used as a noun, but when used as a suffix it can indicate nationality, as in アメリカ人 / *amerikajin*, meaning "person from America" or simply "American".

As a last note, due to language related issues (e.g., English words having more than one translation in Portuguese or Japanese, or not being translatable) the number of words listed in the ANEW adaptations to Brazilian Portuguese and Japanese are different; consequently, so are the proportion of positive, neutral and negative words.

As such differences could bias analyses, two slightly different styles of analysis were conducted. In the main analysis of this article, all the words contained in the ANEW adaptations were used to create the valence scores of emotions for comparison.

For a parallel analysis, words from the ANEW adaptations to Portuguese and Japanese were randomly selected in equal amounts for ten sample sizes of words, five variations contained 600 words of each ANEW adaptation (200 positive, 200 neutral and 200 negative), and the other five variations with 750 words (250 positive, 250 neutral and 250 negative) of each ANEW adaptation. The statistical analysis following this part was the same as described in the methods and results sections. Results regarding means, standard errors, and analysis of variance (ANOVA) interaction effects (culture x valence) of this parallel analyses are reported in Table 2 (Study 1) and Table 3 (Study 2).

---

[2] For example, one artist could have a score of positive = 0.62, neutral = 0.27, negative = 0.11, and another artist would score positive = 0.71, neutral = 0.14, negative = 0.15.

STUDY 1: SONG LYRICS

METHOD

Sampling

In September of 2016, lyrics were extracted from popular song lyrics websites in each country (http://www.vagalume.com.br in Brazil and http://j-lyric.net in Japan). Both websites provide a list of top 100 popular artists[3], and 25 songs per artist were retrieved. In total, this resulted in lyrics from 2464 Japanese songs and 2445 Brazilian songs[4]. A unit of analysis was composed of the aggregation of all song lyrics for each artist[5].

RESULTS AND DISCUSSION

Fig. 1 shows the mean proportion of word valence per culture, and Table 2 states the means, standard errors, and ANOVA interaction effects (culture x valence). A 2 x 3 (Culture [Brazil, Japan], Valence of Words [positive, neutral, negative]) ANOVA was conducted to examine the relationship between culture and valence. The main effect of valence was significant, $F(2,588) = 2906.6$, $MSE = 12.4$, $p < .001$, $\eta p^2 = 0.9$ as was the interaction term between Valence and Culture, $F(3,588) = 549$, $MSE = 2.35$, $p < .001$, $\eta p^2 = 0.7$. Bonferroni p-value adjusted post-hoc tests were performed to evaluate each difference in proportions. Across countries, positive words were more frequent in Brazil ($M = .75$, $SD = .07$) than Japan ($M = .49$, $SD = .08$) but neutral words were more frequent in Japan ($M = .36$, $SD = .07$) than in Brazil ($M = .12$, $SD = .04$). Use of negative words did not significantly differ across cultures (Brazil, $M = .13$, $SD = .07$; Japan, $M = .14$, $SD = .05$). Within Brazilian data, positive words were more frequent than negative and neutral words, but the frequency of neutral and negative words were not significantly different. Meanwhile within Japanese data, frequency of all three categories were significantly different from each other (see Fig. 1).

While the predicted interaction was significant, both cultures also contained more positive than neutral or negative words. This result does not support the predicted hypothesis that Japanese lyrics would contain more neutral words. However, this may reflect a recent trend specific to popular songs, considering the United States for example, Dodds and Danforth (2010) found that popular song lyrics are generally positive, even though there was a tendency towards less positivity from the 1960s to mid 1990s. Nevertheless, the significant amount of neutral words in the Japanese data reveals

---

[3] An analysis with the program G*Power (Erdfelder, Faul, & Bucher, 1996) showed that to detect a medium-effect (0.5), power 0.8, and alpha of .05 (Cohen, 1988), a total sample size of at least 82 units of analysis is needed.

[4] As some artists have less than 25 songs registered on the website, it was not possible to extract 2500 song lyrics from each country. Due to a broken link on the Brazilian websites, only data from 99 artists were retrieved from Brazil. One Japanese artist was excluded from analysis because this artist's lyrics were written only in English.

[5] The lyrics were grouped before analysis because the amount of available text from each song lyric was, in many cases, insufficient for the analysis conducted. Nevertheless, an analysis for each song lyric as a unit of analysis was also conducted, and the results remained equal.
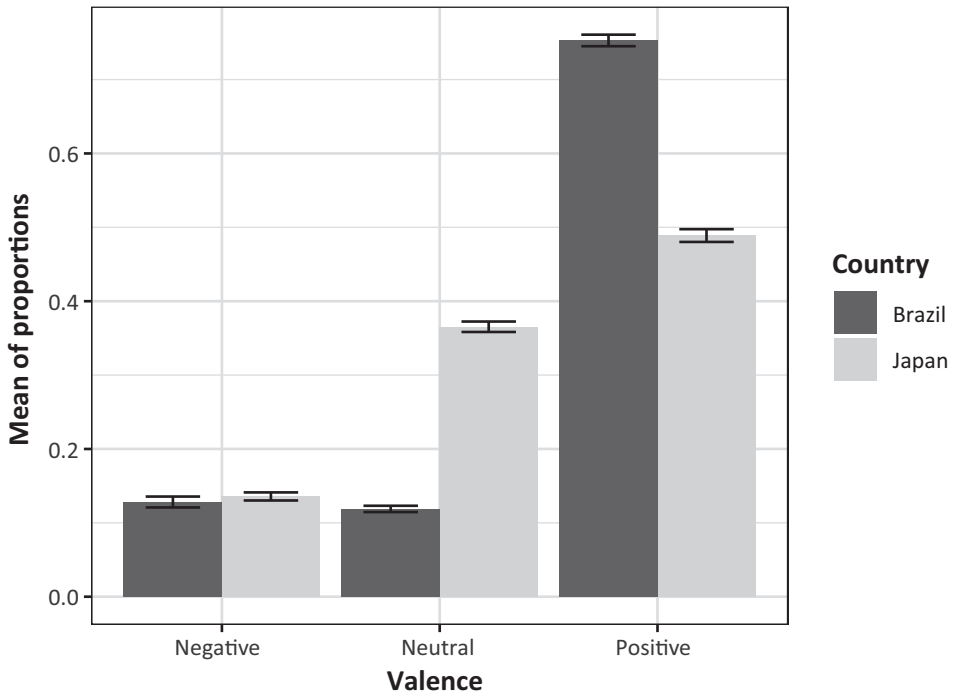
Fig. 1. Means of proportions of each type of word (Negative, Neutral and Positive) in song lyrics by culture. Error bars indicate one standard error above and below the mean.

how much more neutrality is emphasized in Japanese compared to Brazilian culture, considering given this predominantly positive cultural product. For Brazilian songs, the proportion of positive words is around three times the proportion of negative and neutral words combined, which gives some insight into how highly valued positive affect is in Brazilian culture.

STUDY 2: INTERNATIONAL NEWS ARTICLES

METHOD

Sampling
    Similar to Study 1, a corpus of news articles in October 2016 from the international news[6] page of two popular news websites: *Yahoo News*[7] from Japan and *Folha de São Paulo*[7] from Brazil were retrieved on the same day. This resulted in 136 articles from Brazil, and 482 from Japan. To create equivalent samples, 140 articles were randomly selected from the already extracted Japanese news articles. Data treatment and analyses were conducted in a similar manner to Study 1, however in Study 2 the unit of analysis was each news article.

    [6] We chose to analyse international news, as the contents is likely to be more similar across cultures than local news.

Table 2.   Randomization of ANEW words, means, sem and ANOVA of Study 1 (Song Lyrics)

Randomization	Culture	Positive	Neutral	Negative	ANOVA (Culture X Valence)
#1, 200 each	Brazil	.61(.01)	.22(.01)	.16(.01)	$F(2,588) = 442.3$, $MSE = 2.85$ ***
	Japan	.35(.01)	.44(.01)	.19(.01)	
#2, 200 each	Brazil	.68(.01)	.17(.01)	.15(.01)	$F(2,588) = 1001.8$, $MSE = 5.28$ ***
	Japan	.32(.01)	.44(.01)	.23(.01)	
#3, 200 each	Brazil	.71(.01)	.15(.01)	.14(.01)	$F(2,588) = 765.56$, $MSE = 4.55$ ***
	Japan	.39(.01)	.43(.01)	.17(.01)	
#4, 200 each	Brazil	.69(.01)	.18(.01)	.13(.01)	$F(2,588) = 745.77$, $MSE = 4.17$ ***
	Japan	.37(.01)	.43(.01)	.19(.01)	
#5, 200 each	Brazil	.72(.01)	.19(.01)	.09(.01)	$F(2,588) = 558.96$, $MSE = 3.5$ ***
	Japan	.41(.01)	.37(.01)	.21(.01)	
#6, 250 each	Brazil	.68(.01)	.19(.01)	.12(.01)	$F(2,588) = 848.07$, $MSE = 4.27$ ***
	Japan	.36(.01)	.45(.01)	.18(.01)	
#7, 250 each	Brazil	.71(.01)	.16(.01)	.13(.01)	$F(2,588) = 87.76$, $MSE = 4.5$ ***
	Japan	.38(.01)	.41(.01)	.2(0)	
#8, 250 each	Brazil	.72(.01)	.17(.01)	.11(.01)	$F(2,588) = 1231.53$, $MSE = 5.02$ ***
	Japan	.37(.01)	.43(.01)	.19(.01)	
#9, 250 each	Brazil	.66(.01)	.18(.01)	.15(.01)	$F(2,588) = 809.27$, $MSE = 3.72$ ***
	Japan	.37(.01)	.43(.01)	.19(0)	
#10, 250 each	Brazil	.61(.01)	.2(.01)	.19(.01)	$F(2,588) = 391.54$, $MSE = 1.87$ ***
	Japan	.4(.01)	.38(.01)	.2(0)	

Note. ***$p < .001$. **$p < .01$. *$p < .05$.

RESULTS AND DISCUSSION

Fig. 2 shows the mean proportion of word valence per culture, and Table 3 states the means, standard errors, and ANOVA interaction effects (culture x valence). A 2x3 (Culture [Brazil, Japan], Valence of Words [positive, neutral, negative]) ANOVA was conducted to examine the relation between country and valence. The main effect of Valence was significant, $F(2,822) = 188.4$, $MSE = 5.86$, $p < .001$, $\eta p^2 = .31$, as was the interaction term between Valence and Culture, $F(3,822) = 48.39$, $MSE = 1.5$, $p < .001$,

---

[7] Yahoo News Japan is one of the most famous and frequently accessed news aggregator websites that displays news from numerous sources, including traditional newspapers such as *Yomiuri Shimbun* and *Asahi Shimbun*. *Folha de São Paulo* is a well-known newspaper in Brazil that also has an on-line version and it's currently the most widely spreading news source in Brazil (Folha de São Paulo, 2019). These websites were chosen based on their wide native audience base, thus representing mainstream culture, as well as the advantage that both websites allowed for data extraction (scraping) without technical difficulties.

$\eta p^2 = .15$. Bonferroni p-value adjusted post-hoc tests were performed to evaluate each difference in proportions. Across countries, positive words were more frequent in Brazil ($M = .58$, $SD = .17$) than in Japan ($M = .25$, $SD = .19$) but neutral words were more frequent in Japan ($M = .57$, $SD = .21$) than in Brazil ($M = .23$, $SD = .14$). There was no cross-cultural difference in negative words. In the Brazilian data, positive words were more frequent than negative and neutral words, and neutral words more frequent than negative words. In the Japanese data, neutral words were more frequent than positive and negative words, and positive words were more frequent than negative words.

While popular song lyrics tended to be more positive, news articles were generally more neutral. Nevertheless, this data revealed that in news articles in Brazil, positive words were more commonly used, reinforcing the argument that positivity, as an important part of Latin American cultures, is conveyed in cultural products. In the Japanese data, neutral words were predominant, which is consistent with previous research showing that news in Japan tend towards neutrality, regardless of the content of the articles (Uchida et al., 2015).
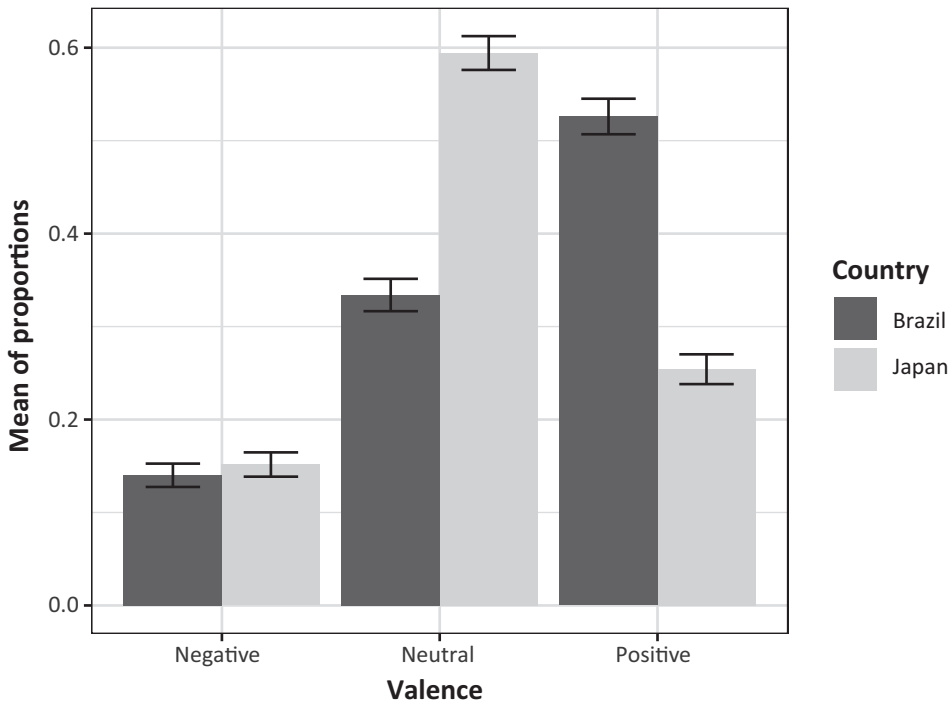

Fig. 2. Means of proportions of each type of word (Negative, Neutral and Positive) in news articles by culture. Error bars indicate one standard error above and below the mean.

Table 3. Randomization of ANEW words, means, sem and ANOVA of Study 2 (News Articles)

Randomization	Culture	Positive	Neutral	Negative	ANOVA (Culture X Valence)
#1, 200 each	Brazil	.55(.02)	.28(.02)	.13(.02)	$F(2,822) = 124.8$, $MSE = 6.94$ ***
	Japan	.22(.02)	.58(.02)	.2(.02)	
#2, 200 each	Brazil	.7(.02)	.14(.01)	.16(.01)	$F(2,822) = 302.09$, $MSE = 11.37$ ***
	Japan	.28(.02)	.54(.02)	.18(.02)	
#3, 200 each	Brazil	.43(.02)	.4(.02)	.18(.02)	$F(2,822) = 4.13$, $MSE = .22$ *
	Japan	.37(.02)	.45(.02)	.18(.02)	
#4, 200 each	Brazil	.37(.02)	.44(.02)	.17(.02)	$F(2,822) = 19.02$, $MSE = .85$ ***
	Japan	.31(.02)	.57(.02)	.12(.01)	
#5, 200 each	Brazil	.44(.02)	.38(.02)	.18(.02)	$F(2,822) = 123.45$, $MSE = 4.55$ ***
	Japan	.23(.01)	.67(.02)	.1(.01)	
#6, 250 each	Brazil	.61(.02)	.23(.01)	.16(.01)	$F(2,822) = 244.1$, $MSE = 7.57$ ***
	Japan	.31(.02)	.58(.02)	.11(.01)	
#7, 250 each	Brazil	.4(.02)	.37(.02)	.22(.02)	$F(2,822) = 33.4$, $MSE = 1.37$ ***
	Japan	.37(.02)	.53(.02)	.1(.01)	
#8, 250 each	Brazil	.6(.02)	.29(.02)	.11(.01)	$F(2,822) = 103.71$, $MSE = 3.26$ ***
	Japan	.36(.02)	.48(.02)	.16(.01)	
#9, 250 each	Brazil	.47(.03)	.3(.02)	.21(.02)	$F(2,822) = 62.3$, $MSE = 3.68$ ***
	Japan	.26(.02)	.55(.02)	.18(.02)	
#10, 250 each	Brazil	.54(.02)	.3(.02)	.15(.01)	$F(2,822) = 154.74$, $MSE = 6.44$ ***
	Japan	.22(.02)	.58(.02)	.2(.02)	

Note. ***$p < .001$. **$p < .01$. *$p < .05$.

GENERAL DISCUSSION

The present research contributes to the scarce body of literature comparing East Asian and Latin American cultures. Analyzing cultural products obtained from real world environments revealed that the cultural values of preference for balanced emotions in Japan and positive emotions in Brazil is consistent with previous research (Miyamoto & Ma, 2011; Triandis et al., 1984). More importantly, this shows that cultural differences in emotions can emerge not only between societies that differ in independence and interdependence, but also within interdependence-fostering societies.

The present results likely reflect how interdependence takes form across these two countries. Both in East Asia and Latin America, the maintenance and promotion of interpersonal relationships is highly valued, however, this is achieved in each culture via distinct paths.

Since cultural products are made by members of a culture for other members of the same culture as conveyors of values, they can be understood as an indirect way of socialization, which can explain the reason why the above mentioned patterns of emotions are displayed in these products. Future research could investigate this via the study of direct ways of socialization, such as parent-child or peers interaction, or even internet texting and board discussion.

In addition, some limitations in the current studies can provide a starting point for future research. For instance Study 1 found that positive words are the most common type of word in popular song lyrics despite culture. This could be related to the nature of popular music. Future research can address this issue.

Another limitation of the studies presented here is that the cultural products studied here reflect societal values based on the notion that these cultural products are widespread and consumed by the majority. However, this is not necessarily true; for instance, it might be the case that popular cultural products are imposed to the majority by a dominant class, but not supported by culturally marginalized people (e.g., Norasakkunkit & Uchida, 2011). Future research can address this issue.

Future research could include or focus on other emotional dimensions, explore cultural products directed at different groups within the same culture, cultural products that are popular in more than one country or cultural group, and finally, how cultural products change over time.

REFERENCES

Bradley, M. M., & Lang, P. J. (1999). *Affective norms for English words (ANEW): Instruction manual and affective ratings* (Technical Report C-1). University of Florida, The Center for Research in Psychophysiology.

Brainerd, C. J. (2018). The emotional-ambiguity hypothesis: A large-scale test. *Psychological Science*, *29* (10), 1706–1715. doi: 10.1177/0956797618780353

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.

Diaz-Loving, R. (2005). Emergence and contributions of a Latin American indigenous social psychology. *International Journal of Psychology*, *40*(4), 213–227. doi: 10.1080/00207590444000168

Dodds, P. S., & Danforth, C. M. (2010). Measuring the happiness of large-scale written expression: Songs, blogs, and presidents. *Journal of Happiness Studies*, *11*(4), 441–456. doi: 10.1007/s10902-009-9150-9

Erdfelder, E., Faul, F., & Bucher, A. (1996). GPOWER: A general power analysis program. *Behavior Research Methods, Instruments, & Computers*, *28*(1), 1–11.

Folha de São Paulo. (2019, April 21). *Com crescimento digital, Folha lidera circulação total entre jornais brasileiros* [Growing digitally, Folha leads total circulation among Brazilian newspapers]. Retrieved from https://www1.folha.uol.com.br/poder/2019/04/com-crescimento-digital-folha-lidera-circulacao-total-entre-jornais-brasileiros.shtml

Honma, Y. (2014). Tango no kanjoka to kakuseido ni motoduita tangoshigeki no sakusei [Drawing up of the Japanese word stimulus based on the emotional valence and arousal of the word]. *Aichikogyodaigaku Kenkyuhokoku*, *49*, 13–24.

Imada, T. (2012). Cultural narratives of individualism and collectivism: A content analysis of textbook stories in the United States and Japan. *Journal of Cross-Cultural Psychology*, *43*(4), 576–591. doi: 10.1177/0022022110383312

Ishida, M. (2008). *R niyoru tekisuto maininig nyumon* [Introduction to text mining with R] (1st ed.).

Tokyo, Japan: Morikita.

Ji, L., Nisbett, R. E., & Su, Y. (2001). Culture, change, and prediction. *Psychological Science*, *12*(6), 450–456.

Kim, Y. E., Schmidt, E. M., Migneco, R., Morton, B. G., Richardson, P., Scott, J., . . . Turnbull, D. (2010). Music emotion recognition: A state of the art review. In J. S. Downie & R. C. Veltkamp (Eds.), *Proceedings of the 11th International Society for Music Information Retrieval Conference* (pp. 255–266). Utrecht, Netherlands: ISMIR.

Kitayama, S., Mesquita, B., & Karasawa, M. (2006). Cultural affordances and emotional experience: Socially engaging and disengaging emotions in Japan and the United States. *Journal of Personality and Social Psychology*, *91*(5), 890–903. doi: 10.1037/0022-3514.91.5.890

Kristensen, C. H., Gomes, C. F. A., Justo, A. R., & Vieira, K. (2011). Normas brasileiras para o affective norms for English words [Brazilian norms for the affective norms for English words]. *Trends in Psychiatry and Psychotherapy*, *33*(3), 135–146. doi: 10.1590/S2237-60892011000300003

Lamoreaux, M., & Morling, B. (2012). Outside the head and outside individualism-collectivism: Further meta-analyses of cultural products. *Journal of Cross-Cultural Psychology*, *43*(2), 299–327. doi: 10.1177/0022022110385234

Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, *98*(2), 224–253. doi: 10.1037/0033-295X.98.2.224

Markus, H. R., Uchida, Y., Omoregie, H., Townsend, S. M., & Kitayama, S. (2006). Going for the gold: Models of agency in Japanese and American contexts. *Psychological Science*, *17*(2), 103–112. doi: 10.1111/j.1467-9280.2006.01672.x

Miyamoto, Y., & Ma, X. (2011). Dampening or savoring positive emotions: A dialectical cultural script guides emotion regulation. *Emotion*, *11*(6), 1346–1357. doi: 10.1037/a0025135

Norasakkunkit, V., & Uchida, Y. (2011). Psychological consequences of postindustrial anomie on self and motivation among Japanese youth. *Journal of Social Issues*, *67*(4), 774–786. doi: 10.1111/j.1540-4560.2011.01727.x

Rothbaum, F. M., & Tsang, B. Y. (1998). Lovesongs in the United States and China: On the nature of romantic love. *Journal of Cross-Cultural Psychology*, *29*(2), 306–319.

San Martin, A., Sinaceur, M., Madi, A., Tompson, S., Maddux, W. W., & Kitayama, S. (2018). Self-assertive interdependence in Arab culture. *Nature Human Behaviour*, *2*(11), 830–837. doi: 10.1038/s41562-018-0435-z

Silge, J., & Robinson, D. (2016). tidytext: Text mining and analysis using tidy data principles in R. *Journal of Open Source Software*, *1*(3), 37. doi: 10.21105/joss.00037

Triandis, H. C., Marín, G., Lisansky, J., & Betancourt, H. (1984). Simpatía as a cultural script of Hispanics. *Journal of Personality and Social Psychology*, *47*(6), 1363–1375. doi: 10.1037/0022-3514.47.6.1363

Tsai, J. L., Knutson, B., & Fung, H. H. (2006). Cultural variation in affect valuation. *Journal of Personality and Social Psychology*, *90*(2), 288–307. doi: 10.1037/0022-3514.90.2.288

Tsai, J. L., Louie, J. Y., Chen, E. E., & Uchida, Y. (2007). Learning what feelings to desire: Socialization of ideal affect through children's storybooks. *Personality and Social Psychology Bulletin*, *33*(1), 17–30. doi: 10.1177/0146167206292749

Uchida, Y., Kanagawa, C., Takenishi, A., Harada, A., Okawa, K., & Yabuno, H. (2015). How did the media report on the Great East Japan Earthquake? Objectivity and emotionality seeking in Japanese media coverage. *PLOS ONE*, *10*(5), e0125966. doi: 10.1371/journal.pone.0125966

Uchida, Y., & Kitayama, S. (2009). Happiness and unhappiness in East and West: Themes and variations. *Emotion*, *9*(4), 441–456. doi: 10.1037/a0015634

Uchida, Y., Norasakkunkit, V., & Kitayama, S. (2004). Cultural constructions of happiness: Theory and emprical evidence. *Journal of Happiness Studies*, *5*(3), 223–239. doi: 10.1007/s10902-004-8785-9