

A DESIGN FOR MEASURING AND INTERPRETING EMOTIONAL
RESPONSE TO STANDARDIZED ADVERTISEMENT ACROSS CULTURES:
WHERE EAST MEETS WEST
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One hundred fourteen subjects, 64 Taiwanese and 50 American, whose ages range from 18 to 81 participated in this study to investigate the different emotional responses to 12 global standardized TV commercials. The results indicated that there were no significant overall differences in emotional responses to ads. One ad was found to evoke significantly different emotional response on the pleasure dimension and one ad on the arousal dimension. No significant difference was found for the dominance dimension between countries. The study also demonstrates that AdSAM® is an effective method for measuring emotional response globally, across cultures.

Introduction

1. Global Market and Standardized Advertising

Standardized global advertising, the idea of advertising the same product in the same way in markets around the world, has emerged as an important topic of advertising and marketing research (Mueller, 1992; Onkivist & Shaw, 1987; Culter & Javalgi, 1992). Researchers Elinder (1965) and Fatt (1967) contended that advertisers employ standardized advertising campaigns because they believe that the demands and values of international customers are becoming increasingly homogenized and they find this process more convenient. The development of worldwide mass media and convenient travel transportation will gradually decrease the language boundaries. "Because of better and faster communication, there is a convergence of art, literature, media availability, thoughts, religious beliefs, culture, living conditions, language, and, consequently, advertising" (Onkivist & Shaw, 1987, p.44). Levitt (1983) continued to inflame the global marketing debate. In his theory, the world now has become a common market place, a so-called "global village," in which millions of consumers around the world share the same values, lifestyles and desires for product quality and modernity. It can be seen easily in modern communities around the world, people wear their Polo sport shirts, lace up their Nike sport shoes, put on their Ray-Ban sunglasses, then go out to eat McDonald's burgers and drink their favorite drink, Coke. No matter where they live, people desire the same products and lifestyles (Lynch, 1984). Therefore, the successful global marketing strategy, as suggested by Levitt (1983), should have a common brand name, packaging and communications.

2. Debate of Globalization versus Localization

Proponents of the global standardized advertising, believe that this method would benefit them due to the greater similarity of consumers around the world. Among the benefits of standardized advertising messages, two of the most recognized are savings in cost of commercial production and the ability to create and centrally control an international brand or company image (Biswas, Olsen, & Carlet, 1992; Culter & Javalgi, 1992; Diaz, 1985; Lev, 1991; Rutigliano, 1986). There are a number of global brands that utilize standardized advertising campaigns to create unified global brand images. These include Coca-Cola (Lev, 1991; Lipman, 1992), Pepsi,, McDonald's (Samiee & Roth, 1992), Reebok (Sloan, 1991) and Nike (Magiera, 1991). Advertisers believe that it is the right time for them to launch global messages due to the growth of 'global media' and 'global teenagers' (Lev, 1991). Some researchers also have suggested that high-tech, industrial, and durable goods are more likely to use standardized advertising to generate perceptions of unique quality and brand image (Jain, 1989; Kahler, 1983; Nelson, 1994; Samiee & Roth, 1992). Kahler (1983) argued that "standardization is dependent on a similarity of the motivations for purchase and similarity of use conditions" (p.246). With culture-free products such as high-tech goods, which have higher similar purchase motivations, it is more feasible to utilize the standardized strategies than with culture-bond products.

On the other hand, many researchers and practitioners argue that global standardized advertising campaigns do not work well in every market (Diaz, 1985; Nelson, 1994). Marketers cannot ignore such differences as taste and varying degrees of awareness about a company and its products (Fatt, 1967); social and cultural

customs, values, and lifestyles (DeMooij & Keegan, 1991); and, historical differences among countries (Tansey et al. 1990). Harris (1984) argued that standardized advertising campaigns are good for advertising with low information content, but not appropriate for most brands (unless the universal image is needed). Nevertheless, it seems feasible for some multinational advertisers to launch their standardized advertising to the local markets by translating the language portion of the commercials or producing the commercials without spoken language.

3. Need for Present Study

Some cross-cultural research on advertising messages has used content analysis to examine types of appeals and products in national newspapers of the People's Republic of China, Hong Kong, and Taiwan (Tse, Belk, & Zhou, 1989); advertising themes in U.S. and Brazilian magazines (Tansey, Hyman, & Zinkhan, 1990); and, television commercials in the People's Republic of China and Hong Kong (Stewart & Campbell, 1988). This method has also been used to examine advertising themes in U.S.; Japanese print advertisements (Belk & Pollay, 1985; Hong, Muderrisoglu, & Zinkhan, 1987; Mueller, 1992); and the differences between French and American advertising expressions (Biswas, Olsen, & Carlet, 1992).

Almost none of the cross-cultural advertising research has focused on consumers' emotional responses to advertising in diverse countries, except Morris et al. (1993). Morris et al. (1993) initially applied the measurement of emotional response on the cross-cultural study to examine the similarities (differences) of consumers' emotional responses to advertising. Such an approach focuses more on the consumers' standpoints to examine what people do with advertising, rather than what advertising does to people (Banerjee, 1994). The purpose of this study is not only to explore the cultural differences (similarities) in consumers' emotional responses across markets to standardized advertising, but also to attempt to contribute an empirical analysis of cross-cultural emotional response to standardized global advertising.

4. Assessing Emotional Responses to Advertising

During the last two decades, researchers have devoted significant attention to investigating emotional response to advertising (e.g. Burke & Edell, 1989; Englis, 1990; Holbrook & Batra, 1987; Holbrook & Hirschman, 1982; Holbrook & O'Shaughnessy, 1984; Morris, Bradley, Waine & Lang, 1992; Morris, Bradley & Waine, 1992; Morris, Bradley, Sutherland & Wei, 1993). For example, Holbrook and Batra (1987) found that pleasure, arousal, and dominance clearly mediate the effects of ad content on attitudes toward ads, and these three emotional dimensions plus attitude toward ads partially mediate the effects of ad content on attitudes toward brands. A certain feeling of warmth elicited by commercials appears to be highly correlated with attitudes toward the advertising and also with buying likelihood (Aaker, Stayman & Hagerty, 1986). Furthermore, investigators have argued that some factors such as gender, age, and brand usage would confound the relationship between assessment of advertising and affective response (Weilbacher, 1970).

5. The Evidence of PAD in Cross-Cultural Studies

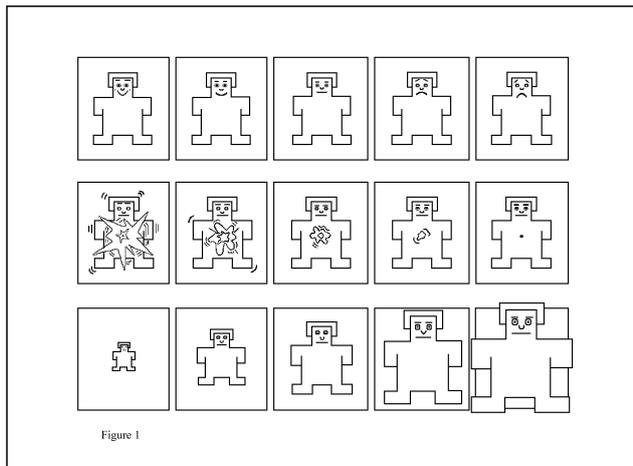
Using a semantic differential technique to study in 22 culturally and linguistically different groups, Osgood, May, and Miron (1975) have reported that the three factors, evaluation, activity and potency are panculturally identified. Herrman and Raybeck (1981) collected data from Spain, Vietnam, Hong Kong (Cantonese Chinese), Haiti, Greece and the United States and used multidimensional scaling to judge the similarity of 15

emotion terms. The results yielded the two dimensions, pleasure and arousal; pleasure was especially significant. Through interviewing the native speakers of each language, the two dimensions: pleasure-displeasure and arousal-sleep were found in Gujarati, Croatian, Japanese, Cantonese Chinese, and English (Russell, 1983). Additionally Russell and his associates' (1989) subsequent research, which studied the facial expression of Greek-, Chinese-, and English-speaking subjects, has yielded the same two dimensions. Corraliza (1987) did find all three factors, pleasure, arousal, and dominance, when analyzing Spanish emotion-related terms.

6. The Self-Assessment Manikin

A problem inherent in verbal measures of emotional response is the lack of universally accepted adjectives. It is difficult to design an instrument that contains words that share the same meaning when translated from language to language. In the present study, therefore, a nonverbal measurement, the Self-Assessment Manikin (SAM), (Lang 1980), was used to analyze advertising across cultures. SAM has been shown to be a reliable method for measuring the three dimensions of affect, pleasure, arousal and dominance. Lang (1980) has used a large subject sample (N=96) to rate the same catalog of situations which were categorized by Mehrabian and Russell (1974). The correlations between Lang's and Mehrabian-Russell's (1974) PAD results were: pleasure (+.937); arousal (+.938); dominance (+.660). The finding has indicated that SAM "generated a similar pattern of scale values for these situations as was obtained for the semantic differential" (Lang, 1980, p.123). SAM visually assesses each PAD dimension with a graphic (cartoon) character arrayed along a continuous nine-point scale. The first row of figures is the pleasure scale, which ranges from a smiling, happy face to a frowning, unhappy face. The second row is the arousal scale, which ranges from extremely calm with eyes closed to extremely excited with eyes open and elevated eyebrows. The third row, the dominance dimension, represents changes in control with changes in the size of SAM: from a large figure indicating maximum control in the situation to a tiny figure which indicates being under control (Figure 1).

The concept of universal facial expressions could provide further support for SAM as a practical instrument to



measure the emotional responses across cultures. Smiles, frowns, glares, and other facial expressions are recognized as sharing similar meanings across cultures. Ekman and his associates (e.g. Ekman & Friesen, 1971; Ekman, Sorenson & Friesen, 1969) have contended that facial expressions are universal and can be identified without language. To date, SAM has been used

effectively to measure emotional responses in a variety of studies, including reactions to, advertisements (Morris, Bradley, Waine & Lang, 1992), pictures (International Affective Picture System, IAPS) (Greenwald, Cook, & Lang, 1989; Lang, Greenwald, Bradley, & Hamm, 1993), images (Miller, Levin, Kozak, Cook, McLean, & Lang, 1987, sounds (Bradley, 1994) and more. Morris et al., conducted a series of studies on emotional response to advertising messages by using the SAM instrument and have developed a system for analyzing this data called, AdSAM®. Morris, Bradley, Waine and Lang (1992) have successfully utilized SAM for determining emotional responses to television advertisements. Another study investigating the relationships between emotional responses to preproduction (storyboards and animatics) and emotional responses to finished television commercials has indicated that SAM is a valid and reliable measure for advertising copy testing (Morris, Wright, Bradley, & Waine, 1992). The results of this study also indicated that emotional responses to storyboards and animatics could reliably predict emotional response to finished versions of television commercials. A cross-cultural comparison in emotional responses to advertisements has used SAM to test the differences (similarities) in emotional responses to standardized advertising between two distinct cultural groups, Taiwanese and Americans (Morris, Bradley, Sutherland & Wei, 1993).

7. Research Questions

The debate over whether to utilize the standardized advertising theme from country to country still exists among researchers and practitioners. Therefore, in the present study, the first research question is: Should multinational advertisers be concerned that there are historical differences and deeply ingrained cultural differences that will effect emotional responses to ads?

Some multinational advertisers contend that problematical language boundaries between countries could be overcome by using translation producing the advertizing without verbal messages. Thus, the second research question: Will different emotional responses be evoked between two cultures (Chinese and American) due to the cultural differences? This also lead to a third question: Do any specific types of advertising executions appear to be more suitable to the standardized approach?

Researcher Morris has used SAM (Self-Assessment Manikin) to rate the respondents' emotional responses to ads among English Speaking groups (Morris, Bradley, Waine, & Lang, 1992; Morris, Wright, Bradley, & Waine, 1992) and non-English speaking groups (Morris, Bradley, Sutherland & Wei, 1993; Morris, Strausbaugh, & Nthangeni, 1994). Several cross-cultural studies (Corraliza, 1987; Herrman & Raybeck, 1981; Russell, 1983; Osgood, May, & Miron, 1975; Russell, Lewicka, & Niit, 1989) have attested that PAD is a valid model, which can identify emotion in diverse countries. Thus, the fifth research question in this study: Is SAM a valid measurement for measuring the emotional responses to ads across cultures?

8. The Pilot Study

A pilot study conducted by Morris, Bradley, Sutherland, and Wei (1993) investigated the differences between Taiwanese and Americans in their emotional responses to 12 standardized TV commercials. Through collecting data from 30 subjects in each country, Morris et al. (1993) found that there were no overall significant differences in emotional responses between Taiwanese and Americans. Six out of twelve commercials were found to have significant differences in pleasure ratings and four commercials in arousal ratings. No significant differences were found in any of the dominance ratings. The results indicated that

there are no overall significant main effects of culture on PAD scores. College students, the subjects of the Morris et al. (1993) study, have been criticized as unrepresentative because they are more modernized and are more likely to accept the Western culture than the general population. In the present cross-cultural comparison, the use of subjects with a broader range of age and occupation may lead to more representative and reliable results. Thus, cultural differences would clearly influence on the respondents' emotional responses to standardized messages.

Methodology

1. Research Design

This study used an experimental design to test the cultural differences (similarities) in emotional responses to standardized advertising and how brand usage affects emotional responses to ads. Two groups of subjects were each exposed to twelve commercials. One group is American subjects, and the other is Taiwanese. American advertisers produced the twelve commercials used in this study and all have been aired in both the United States and Taiwan. Each test group viewed the same set of commercials in different versions, American subjects viewed the commercials in the American version and Taiwanese subjects viewed the

Advertisements used as Stimuli			
Ad #	Brand Name	Title	Product
1)	McDonald	Mac Tonight	Fast Food
2)	Coke	Skysurfer	Soft Drink
3)	Chrysler	Jeep Wrangler	Automobile
4)	Sprite	Rafting	Soft Drink
5)	Nike	Giant / Robinson	Sport Shoes
6)	Pepsi	MC Hammer "Feelings"	Soft Drink
7)	* Volkswagen	Logo	Automobile
8)	* Chrysler	The Livingstones	Automobile
9)	Sprite	Big Wave	Soft Drink
10)	* Reebok	Skysurfer	Soft Drink
11)	Pepsi	Gloria Estefan "Assembly"	Soft Drink
12)	* Nike	Tennis Camp Bogus Label	Sport Shoes
* with minor editing			

Table 1

commercials in the Chinese (Mandarin) version. The Chinese (Mandarin) version of the commercials used in this study were modified by local (Taiwanese) advertisers. The commercials were translated into Chinese using various methods. Some commercials' audio tracks were changed into Mandarin language, some had Chinese captions added, and in

some the audio or visual elements weren't changed (see Table 1).

2. Procedure

The subjects were given the instruction in their local language. The instruction informed respondents how to use the SAM scales to indicate their prompt emotional responses. The respondents were also asked not to evaluate the ads themselves but their immediate emotional responses to the ads.

After reading the instruction, the researchers played the first practice ad and then stopped the VCR. The participants were allowed to ask questions regarding the response procedure before the playing of the experimental ads. After allowing respondents ample time for questions, the videotape was then restarted and played nonstop until the last experimental ad was shown. Following this method, the subjects rated their emotional responses to each commercial on each page of the SAM scales during the 15 seconds period right after each ad. The entire experimental procedure lasted about 25 minutes.

Results

1. Sample

The study was conducted among 114 adult subjects including 64 Taiwanese and 50 Americans. Among Taiwanese respondents, 33 were 18 to 34, 23 were 35-44, and 8 were 45 years old and above. For American group, 13 were 18-34, 13 were 35-44 and 24 were 45 years old or above. In the Taiwanese group, there were 37 males and 27 females. In the American group, there were 25 males and 25 females.

2. Cultural Differences in Emotional Responses to Ads

The PAD responses to the commercials by the two groups were compared using an Analysis of Variance (ANOVA). The results show that there were no significant differences between the Taiwanese group and American group on the three dimensions, Pleasure, $[F(1,112)= 1.05, p= .31]$, Arousal, $[F(1,112)= .62, p= .43]$, and Dominance, $[F(1,112)= .13, p= .72]$.

To examine for significant differences in emotional responses between countries for specific ads, a separate one-way ANOVA was used. Significant differences were found for two ads one ad on the pleasure dimension,

PAD by Ad by Group		Pleasure		Arousal		Dominance	
McDonald *	Taiwanese	5.59	p= .03 *	4.31	p= .15	5.42	p= .43
Mac Tonight	American	6.50		4.92		5.76	
Coke	Taiwanese	7.05	p= .06	6.03	p= .45	5.91	p= .70
Skysurfer	American	6.04		5.72		5.74	
Chrysler	Taiwanese	5.94	p= .30	4.76	p= .09	5.73	p= .72
Jeep, Wrangler	American	5.50		3.92		5.58	
Sprite	Taiwanese	6.73	p= .60	6.05	p= .91	5.83	p= .70
Rafting	American	6.52		6.00		6.00	
Nike	Taiwanese	6.06	p= .23	6.14	p= .55	5.11	p= .89
Giant/Robinson	American	5.56		5.88		5.04	
Pepsi	Taiwanese	6.42	p= .46	5.50	p= .69	5.64	p= .64
MC Hammer	American	6.06		5.34		5.82	
Volkswagen *	Taiwanese	6.16	p= .50	5.27	p= .01 *	5.80	p= .75
Logo	American	5.88		4.26		5.92	
Chrysler	Taiwanese	4.42	p= .18	4.45	p= .11	5.23	p= .89
The Livingstones	American	4.92		3.78		5.30	
Sprite	Taiwanese	6.27	p= .76	5.38	p= .93	5.55	p= .24
Big Wave	American	6.38		5.34		6.02	
Reebok	Taiwanese	6.78	p= .55	6.06	p= .33	5.41	p= .47
Skysurfer	American	6.56		6.44		5.72	
Pepsi	Taiwanese	7.27	p= .12	6.33	p= .48	5.67	p= .76
Gloria "Assembly"	American	6.60		6.04		5.54	
Nike	Taiwanese	5.28	p= .51	4.88	p= .14	5.39	p= .95
Tennis Camp	American	5.00		5.50		5.42	

Note. (*) Significant between-group difference.

Table 2

and one ad on the arousal dimension. No significant differences were found on the dominance dimension.

The commercial "Mac Tonight" evoked significantly different responses on the pleasure dimension, $[F(1,112)= 4.95, p< .03]$, and "Volkswagen Logo" evoked $[F(1,112)= 6.73, p< .02]$ different responses on the arousal dimension. Table 2 lists the mean scores for each ad on each of the three PAD scores.

3. Demographic Analysis

An analysis of the relationship of the emotion variables to the demographic variables was performed for Taiwanese and American groups. Results for the American group showed significant differences between

three age levels [$F(2,47)= 3.87, p< .03$], levels of children [$F(2,47)= 5.49, p=.007$] and occupation levels [$F(6,43)=2.79, p= .02$] on pleasure scores. Significant differences were also found by genders [$F(1,48)= 5.27, p< .03$], marital status [$F(1,43)= 7.57, p< .009$], and occupation [$F(6,43)= 3.97, p= .003$] on arousal rating.

There were no significant differences on dominance scores for the American group.

For the Taiwanese group, there were significant differences between age levels [$F(2,61)= 3.81, p< .03$], marital status [$F(1,62)= 6.64, p= .01$], number of children [$F(2,61)= 3.24, p< .05$] on pleasure ratings as well as a significant difference between income levels [$F(5,55)= 3.75, p= .005$] on dominance ratings. No significant differences were found on arousal ratings for Taiwanese group (See Figure 2 through 10).

PAD ratings were examined for the differences between each level of the demographic variables. The result

Correlation between Pleasure and Dominance for each Group		
Ads	All Respondents (n=114)	American (n=50)
Coke	.2682	.5133
Skysurfer	(p= .004)	(p= .0000)
Chrysler	.1939	.4205
Jeep, Wrangler	(p= .039)	(p= .002)
Chrysler	.2786	.5295
The Livingstones	(p= .003)	(p= .000)
Nike	---	.4392
Giant/ Robinson	---	(p= .001)
Reebok	---	.3399
Skysurfer	---	(p= .016)

Note. No correlation between pleasure and dominance were found for Taiwanese group.
Table 3

showed that significant differences exist by gender [$F(1,110)= 4.22, p= .042$] (See Figure 5), and occupation [$F(96,100)= 2.69, p= .018$] for all respondents (Taiwanese and American) on the arousal rating. There were significant age interactions by country [$F(2, 108)= 6.37, p= .002$], marital status by country [$F(1,105)= 4.18, p= .043$] (See Figure 6) and children by country [$F(2,108)= 7.84, p= .001$] on the pleasure rating. Marital status by country [$F(1,105)= 7.39, p=$

.008] (See Figure 7), number of children by country interacted [$F(92,108)= 2.88 p= .06$] on the arousal rating, and income by country interaction [$F(5,98)= 3.79, p= .004$] on dominance rating.

Discussion and Conclusions

1. Discussion

The results of the comparison between Taiwanese and American adults' emotional responses to 12 commercials did not support the hypothesis that there would be overall significant differences in emotional responses between Taiwanese and Americans across the ads. Only two out of twelve commercials were found to evoke significantly different emotional responses, between Taiwanese and Americans.

This is consistent with earlier findings among college students between the countries (Morris, Bradley, Sutherland & Wei, 1993;) and more importantly may demonstrate that there is less difference in responses to advertisements across cultures.

Some researchers have suggested that ads for certain product categories may travel better across cultures than ads for other product categories (Agnew, 1986; DeMooij & Keegan, 1991). For instance, the high-tech, industrial, and durable goods such as the automobile are more likely to use standardized advertising to build unique quality and universal brand image (Jain, 1989; Kahler, 1983; Nelson, 1994; Samiee & Roth, 1992). However, the results found in present study did not support this idea. The commercial, Volkswagen Logo did show a significant difference on the arousal rating between two groups. Several product categories especially

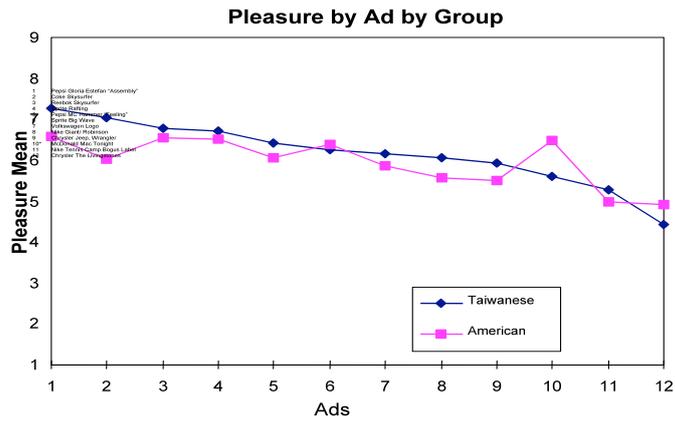


Figure 2

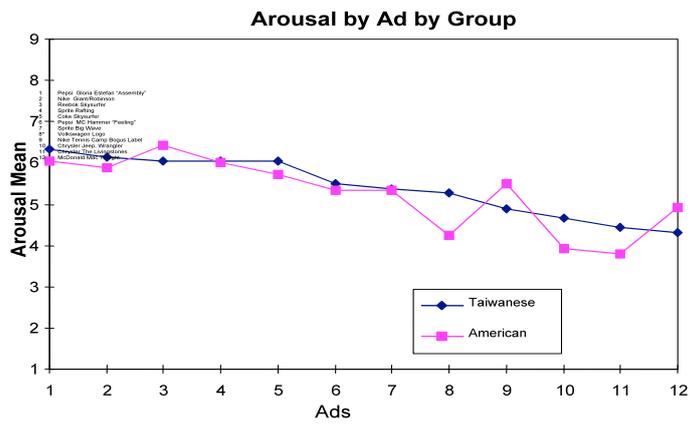


Figure 3

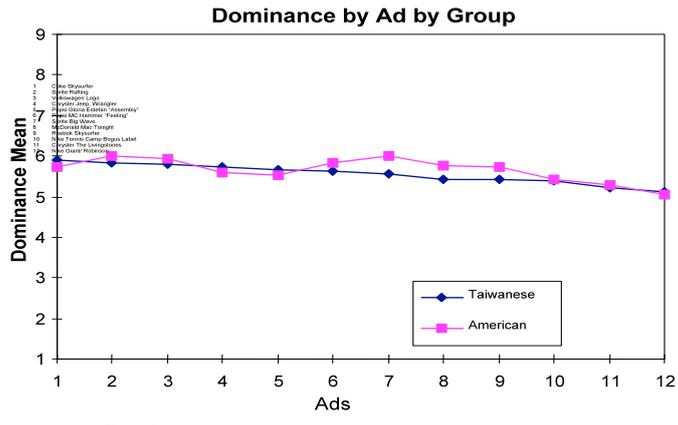


Figure 4

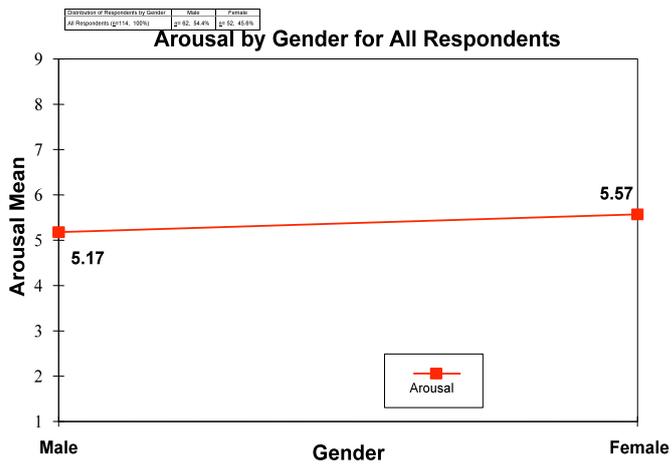


Figure 5

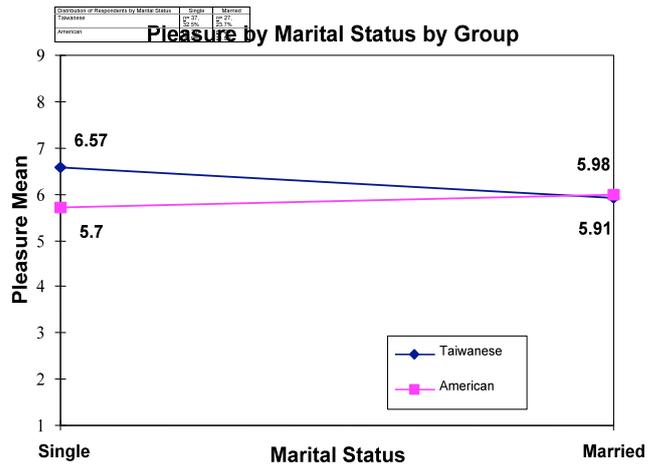


Figure 6

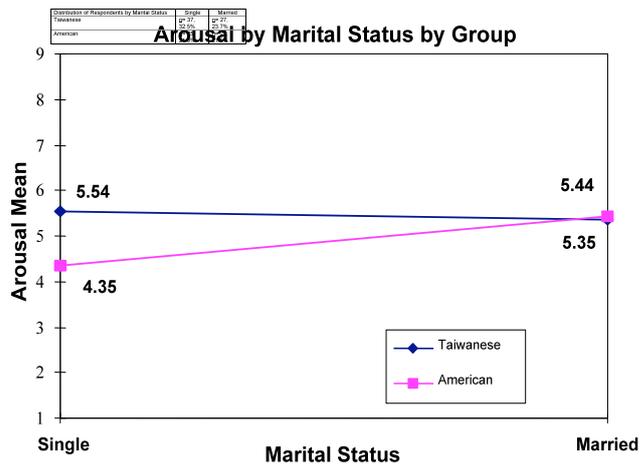


Figure 7

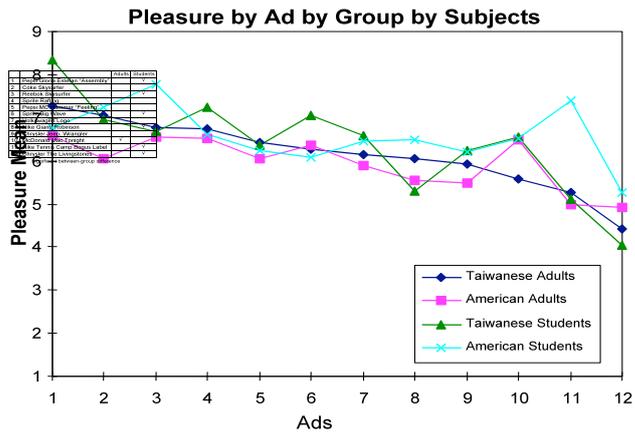


Figure 8

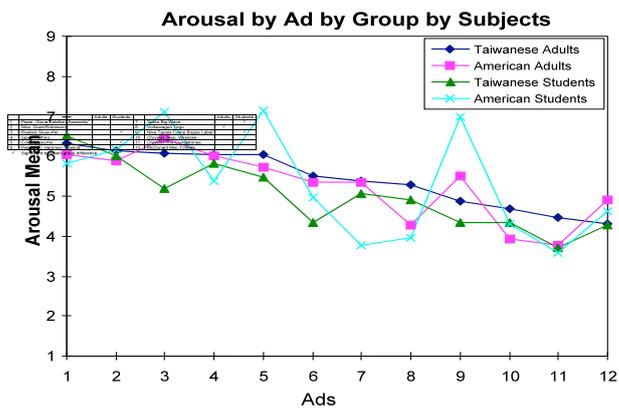


Figure 9

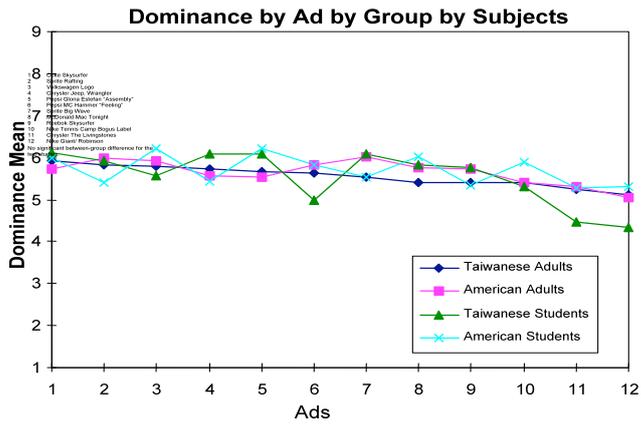


Figure 10

soft drinks (i.e. Coke & Sprite) and sport shoes (i.e. Reebok) evoked more similar emotional responses across cultures than those ads for automobiles. The possible reason for this finding might be due to ad execution, rather than product category. Those differences in emotional responses between the Taiwanese and American groups might be due more to differences in the execution (i.e., music or, photographic techniques), creative themes and concepts, emotionally rich techniques (i.e., humor), people featured in the ads (i.e., celebrities or characters used to link a brand to an activity) or to differences in the needs. This is consistent with earlier findings among college students between the countries (Morris, Bradley, Sutherland & Wei, 1993;) and more importantly may demonstrate that there is less difference in responses to advertisements across cultures. Some researchers have suggested that ads for certain product categories may travel better across cultures than ads for other product categories (Agnew, 1986; DeMooij & Keegan, 1991). For instance, the high-tech, industrial, and durable goods such as the automobile are more likely to use standardized advertising to build unique quality and universal brand image (Jain, 1989; Kahler, 1983; Nelson, 1994; Samiee & Roth, 1992). However, the results found in present study did not support this idea. The commercial, Volkswagen Logo did show a significant difference on the arousal rating between two groups. Several product categories especially soft drinks (i.e. Coke & Sprite) and sport shoes (i.e. Reebok) evoked more similar emotional responses across cultures than those ads for automobiles. The possible reason for this finding might be due to ad execution, rather than product category. The differences include: production (i.e., music or, photographic techniques), creative themes and concepts, emotionally rich techniques (i.e., humor), people featured in the ads (i.e., celebrities or characters used to link a brand to an activity).

McDonald's Mac Tonight evoked significant lower pleasure scores in the Taiwanese group than in the American group. It may be that this animation character doesn't interest the Taiwanese respondents. On the contrary, the American group reported a very high pleasure rating to Mac Tonight. One possible reason for this finding might be that the Taiwanese subjects familiarity with the animated character, the music, or the story of "Mack of the Knife" (the original melody).

In both countries, the Pepsi ads using a pop singer, Gloria Estefan as the spokesperson was rated higher in pleasure and arousal than the ad with pop singer, MC Hammer. Different executional techniques and different celebrities (spokespersons) appear to be evoking different emotional responses.

2. Influence of Demographic Characteristics on Emotional Responses

Among American subjects, demographic variables were found to be significant for age, number of children, and occupation in pleasure scale; gender, marital status, and occupation on arousal scale. For Taiwanese subjects, significant effects of age, marital status, and children were found on the pleasure scale; and annual household income on dominance scale.

The results of this study indicated that there was a significant difference between male and female subjects (both Taiwanese and American) on overall arousal rating (See Figure 5). It indicated that the ads evoked higher arousal response among female respondents than their male counterparts. This finding coincides with Schlinger's (1982) conclusion that females are more susceptible than males to persuasion. Among the Taiwanese group, the single subjects showed significantly higher pleasure feelings (mean = 6.57) than the married subjects (mean = 5.91). The single American subjects reacted significantly lower arousal feelings

(mean = 4.35) than the married American subjects (mean = 5.44) did. Comparing the two cultures, the single Taiwanese respondents showed higher pleasure and arousal responses than the married Taiwanese respondents. Conversely, single American respondent had lower pleasure and arousal responses than the married American respondents (See Figure 6 and 7).

3. Comparison of the Findings of Pilot and Present Study

The major difference in research design between the two studies was the nature and size of sampling. The pilot study (Morris, Bradley, Sutherland, & Wei, 1993) used college students. In present study, the subjects had broader demographic characteristics and were expected to be more representative of the general population.

The results of the present study didn't show as many significantly different emotional responses by ad as the pilot study did (See Figure 2 through 4). It can also be seen that both Taiwanese and American students reacted with stronger feelings than adults did. The possible reasons for this might be the age range of subjects. This supports the notion that the groups, Taiwanese and American, are more alike in response and the differences seem more attributable to age. It is apparent that young people whose average age is less than 21 may not represent the actual feelings of general population. Furthermore, the trend charts also reveal that the young students' responses were greater than the adults' responses (See Figure 8 through 10).

4. Conclusion

Consistent with previous findings (Morris, Bradley, Sutherland & Wei, 1993; Morris, Strausbaugh & Nthangeni, 1994), the results of this study do not negate the idea that the global standardized advertising could work effectively around the world. Nevertheless, the PAD scores for several commercials are different enough to show that culture indeed has some influence on the emotional response to some commercials. Proponents of standardized advertising assert that the unifying advertising message could generate an international brand image and save commercial production costs. However, the evidence of different emotional responses evoked in the two cultures under study here suggests multinational advertisers need to take cultural difference into consideration before producing global advertisements. Multinational advertisers should also consider whether the advertisements executional elements would be accepted in other countries. With these caveats in mind, advertisers should be able to produce standardized messages that deliver similar emotional responses across cultures. In Figure 11, a sample of commercials from this study were plotted on the AdSAM® Perceptual Map. This map is part of a proprietary system and software that matches pleasure, arousal, and dominance scores from the test stimuli, in this case commercial scores, to a database of previously tested emotion adjectives. These adjectives are in English, but are of assistance because they help describe the feelings that occupy the space near the commercials. For example, the AdSAM® Perceptual Map® shows that the Taiwanese Adults were *impressed* by the Pepsi commercial with Gloria Estefan, and *unimpressed* and somewhat *indignant* with the Chrysler commercial. This seems logical since the Pepsi spot featured an international star singing an upbeat song about good times, and the Chrysler commercial featured a dubbed version of the former chairman of the company, espousing the values of the Chrysler airbag system. In addition, the Perceptual Map provides information that helps explain the different reactions of the two groups. Knowing that there are group differences in pleasure, arousal, and dominance is insightful, however

the addition of the adjectives is helpful because the descriptions of emotion characterize these differences.

The adjective matching is accomplished by entering the PAD mean score of each adjective or by downloading the raw data. The process makes it simple to compare the emotional reactions to standardized advertisement and to determine if it produces the same feelings in the East as in the West.

People living in the global village receive the similar news and information, follow the similar fashion trends and share the similar tastes and lifestyles. It seems that country boundaries may be gradually decreasing thanks to the development of international mass media and the convergence of lifestyles. If the last element of the country boundary is language, then AdSAM®, a nonverbal technique to measure emotional responses, has broken the barrier and demonstrated that such a measurement could be reliably utilized across cultures.

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