

**International Comparison of Consumer Attitudes
to Anthropomorphic Products:
Empirical Tests in Thailand and Japan**

Baba Seminar, Faculty of Commerce, Kansai University

Team Anthropomorphism

Haruhiko Furukawa

Miku Hashimoto

Yuto Inada

Kazuya Tamura

Momoko Tashiro

Akari Tsujimura

Kazuya Tamura

Tel: 090-1676-5488

E-mail: kandai.anthropomorphism@gmail.com

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Abstract

This paper aims to extend anthropomorphism study with focusing on characters and international comparison. We investigate how product characteristics (non-anthropomorphism, anthropomorphism and characters) influence the consumer attitudes toward products (product evaluation, purchase intention and attachment) moderated by consumer characteristics (shyness, materialism and general trust) in two countries. In study 1, we found that product characteristics differently affect attitudes toward products. In study 2, our findings are as follows: (1) shy people put higher attachment on character products, (2) materialists exhibit more preference for anthropomorphic products than character products, whereas non-materialist prefer character products to anthropomorphic products, (3) high truster react more favorably in all conditions of product characteristics. In study 3, we found that anthropomorphic products get high evaluations in Thailand while products attaching characters earn high evaluations in Japan. Finally, we suggest some recommendation for international

marketers and future direction of anthropomorphism study.

Keywords: Anthropomorphism, Characters, Shyness, Materialism, General Trust,

International Comparison

words: 6911 words

1 Introduction

Today, many types of anthropomorphism surround us. When people look up at the moon, they sometimes take it as a human face. Some people treat an animal, especially their pet, as human being with emotion or intention. People historically have anthropomorphized various things around themselves. When it rains, people express “The sky is crying.” People have anthropomorphized not only things but also natural phenomenon such as the weather. Moreover, people tend to perceive the front part of cars as human face. This human-like facial expressions change the consumers’ familiarities with the cars (Landwehr, McGill and Herrman, 2011). Some companies use anthropomorphic strategies in the marketing to manipulate the consumer attitudes toward products and convey features of new products to consumer easily.

This paper aims to extend anthropomorphism study with focusing on characters and international comparison. We investigate how product characteristics (non-anthropomorphism, anthropomorphism and characters) influence the consumer attitudes toward products (product evaluation, purchase intention and attachment) moderated by consumer characteristics (shyness, materialism and general trust) in two countries.

We will make literature review in section 2, present framework and hypothesis

in section 3, show methods and results of empirical analysis in section 4 and finally discuss findings, implications, limitations and direction of further research in section 5.

2 Literature Review

2-1 Anthropomorphism studies

According to Epley, Waytz, and Cacioppo (2007, p. 864), anthropomorphism is “the tendency to imbue the real or imagined behavior or nonhuman agents with humanlike characteristics, motivations, intentions, or emotions.” Anthropomorphism studies can be classified into three fields: social psychology, engineering and marketing.

First, in the social psychology field, researchers verified about why and when people anthropomorphize objects by mechanism of cognition (Epley, Waytz and Cacioppo, 2007; Epley, Akais and Cacioppo, 2008). They explained about the mechanism of anthropomorphism by three conditions. The first condition is the human features that are applicable to an object. The second one is the motivation to understand the object of the action. The third one is the motivation to connect socially. Therefore, when people perceive an object to have a similarity with human, they anthropomorphize it. In other words, people try to understand an object that they cannot understand through anthropomorphizing. Moreover, lonely people are more likely to make relationships

with their pets and electronic devices like personal relationships because of motivation to connect with others. In the social psychology field, generally, researchers showed that anthropomorphism is the effects composed many factors such as object identifications, motivations and loneliness.

Second, in the engineering field, researchers study about anthropomorphism with more practical manner. For example, the users who know and master all the functions of PC and mobile phones may be rare, because today's electronic devices are so complicated. Then, anthropomorphic agents active play roles to promote understanding the usage and familiarity with them. Anthropomorphic agents are "digital representations of computer programs that have been designed to interact with, or on behalf of, a human" (Bailenson, Swinth, Hoyt and Blascovich, 2005, p. 379). Anthropomorphic agents are effective in application software, education and medical fields. An example is i-Concier of NTT docomo. It is new mobile application software that an anthropomorphic agent "Shitsuzikun" is displayed on a standby screen of smart phone and deliver a train delay information, nearest supermarket's sales flyers and so on. Yamane and Sato (2016) mentioned that people believe robots and agents as if they were human being and were influenced by their actions. In a study of user's attitude change, Suzuki and Yamada (2005) examined the influence of communication styles by

anthropomorphic agents to user attitude: regular communication (direct communication from anthropomorphic agent to subjects) vs. overheard communication (in-direct communication from anthropomorphic agent to subjects via other person). They found that in-direct communication had greater impact on subjects than direct communication. Moreover, Hari, Yamada and Terada (2013) experimented product recommendations from human, robots and anthropomorphic agents. They found that anthropomorphic agents have the most favorable influence on product recommendations.

Third, in prior studies of marketing field, researchers verified the factors that influence user's attitude and action. Generally, anthropomorphism pulls out consumer's favorable emotions. For example, Delbaere, McQuarrie, and Philips (2011) conducted a comparative study about consumer reactions for anthropomorphic and non-anthropomorphic advertisement photos. They showed that anthropomorphic advertisement pull out user's more favorable emotions than non-anthropomorphic advertisement. Moreover, there is a study about relation of anthropomorphism and self-control. Hur, Koo, and Hofman (2015) showed non-anthropomorphic and anthropomorphic cookie to people who are on a diet and measured the degree of conflict that they wanted to lose weight and wanted to have cookies. As a result, when people who are on diet looked anthropomorphic cookie, the conflict decreased compared with

when people looking non-anthropomorphic cookie. However, strength of their desire was not change. Furthermore, Chandler and Schwarz (2009) examined whether anthropomorphism influences the consumer's willingness to replace their products. When consumers perceive that the products are anthropomorphized, they will not replace the product, comparing with products are not anthropomorphized. In addition, consumers exclude the products' qualities and functions from the decision of the replacement for the anthropomorphized products; this is because users regarded products as old friends. In other words, anthropomorphism creates an emotional connection with consumers and reduces willingness to replace. In brand research, Rauschnabel and Ahuvia (2014) surveyed relationship between anthropomorphism and brand attachment. Participants were randomly assigned to one out of four product categories and answered their favorite brand within a particular category. They found that brand attachment and brand anthropomorphism have positive relationship. In other words, anthropomorphized products and brands appeal to consumer's emotion and influence favorably on consumer's attitudes and behavior.

2-2 Limitations of Prior Research and Domain of This Research

Although prior researchers showed the mechanisms of anthropomorphism,

the new usage of anthropomorphism and the factors influencing the consumer behaviors and attitudes, it remains, at least, two important issues: the role of characters and international perspective. We will discuss these two issues in next sections.

2-2-1 Characters as Marketing Tool

In prior study, comparative research between anthropomorphism and non-anthropomorphism has been conducted, but there is little research on characters (e.g. Mickey Mouse, Hello Kitty, Doraemon and so on). Marketers utilize and apply anthropomorphism widely on marketing. It should be noted that there is a distinction between anthropomorphism and spokes-characters. When companies use non-human characters to promote their product or brand, these characters are called spokes-characters (Phillips, 1996; Garretson and Niedrich, 2004; Phillips and Lee, 2005; Hosany, Prayag, Martin and Lee, 2013). Spokes-characters are not characters created for animation movies, cartoon programs or comics, but characters created for the purpose to promote product, brand, service or idea (Garretson and Niedrich, 2004). For example, Scrubbing Bubbles from SC Johnson and Qoo from Coca-Cola Japan are both spokes-characters. These are more likely to be used to advertise brands in necessities

sectors such as fast-moving consumer goods and foods (Costa, 2010).

The character employed in our research is not spokes-characters but licensed characters of cartoons and movies. We except spokes-characters from our research, because they are created to promote a certain product or brand. The existent character studies showed that children preferred the foods which printed a popular movie character on the package, compared with foods with no character on them, and they gave much higher evaluation on the taste of foods that has a cartoon character on the box than the same foods without characters (Roberto, Baik, Harris and Brownell 2010; Lapierre, Vaala and Linebarger, 2011). Thus, characters have impact on consumer attitudes for products. Most of prior research about characters, however, investigated the reactions of children for the food products printed a character on the packages, and didn't handle with the possibilities to use characters for the other product categories or consumer types.

There are three reasons to focus on characters as marketing tool. First, the characters of cartoons and movies are widely used for promotional purpose. Second, these characters are different from the simple anthropomorphism we described above. Character awareness occurs during childhood, ingrains in their mind and remains after they grow up. The famous characters are historically evolved and have great connections with fans.

For example, Mickey Mouse have symbolizes hope and fantasy for American people since the World War I (Hosany, Prayag, Martin and Lee, 2013). In this respect, characters are different from both of anthropomorphism agents created for dealing with complexity of things and spokes-characters promoting products or brands. Finally, marketers can use and manipulate characters as marketing tools. Since companies like Walt-Disney and Sanrio started to assign their character licenses to independent manufacturers and retailers, the use of characters have been remarkably spread all over the world (Hosany, Prayag, Martin and Lee 2013). Thus, Characters born from cartoons and movies have many possibilities in marketing fields. We focus on comparison between anthropomorphism agents and characters that can be manipulated by marketers, also include Non-anthropomorphism for comparison, and investigate how these product characteristics influence to consumer attitudes for products.

2-2-2 International Comparison

Early research on anthropomorphism focused only on consumer characteristics in a specific country. Culture influences the ways consumer use and understand products. However, at our knowledge, there are only a few prior researches making international comparison. Consumers from different cultural backgrounds do not

similarly perceive anthropomorphic products. Therefore, we claim that the anthropomorphism study should be conducted with international perspective with following reasons.

First, culture influences anthropomorphism and shapes people's knowledge (Aguirre-Rodriguez, 2013; Epley, Waytz and Cacioppo 2007) . For example, rural dwellers are more likely to anthropomorphize nonhuman mechanical devices than city dwellers, because members of non-industrialized cultures more likely to rely on nature for their daily needs than members of industrialized cultures. In contrast, members of industrialized cultures more likely to interact with complicated machines than members of non-industrialized cultures. Therefore, they are more likely to avoid anthropomorphic representations relying on their detailed knowledge about the devices the use. That is, cultivated knowledge and culture collectively influences the way people anthropomorphize the objects. It is necessary to understand different culture in order to advance anthropomorphism study and the finding will have implications for international marketers.

Second, adaptation to consumers in global society should be considered. As use of the Internet and SNS became widespread, understanding cross-cultural differences is imperative for marketing theory and practice. As described above, cultural differences

influence the images of anthropomorphized products or character products. However, international marketers require attention to negative impact of character use. For instance, it took more than thirty years to broadcast Doraemon of Japanese animation in U.S. Because, Nobita's lazy personality in its animation is not good for audiences in educational terms. Also, Gian's action of character urges bullying. If a character representing a firm has a negative image, it would suffer from bad reputation. Therefore, it is essential to comprehend cultural difference, when firms use characters as marketing tools. Accordingly, conducting international comparison contributes theoretical development of this field.

This research chooses Japan and Thailand as target countries for international comparison. As a reason for this, Thai people tend to rely on animism and worshipping of spirits in their decision-making and it is fairly different from that of Japanese people. We can observe two phenomena ("Luk Thep" and "Phii") in Thailand.

The dolls called "Luk Thep" are popular in recent years. Luk thep means angel of children in Thailand. Thai people believe that soul reside in this doll. Surprisingly, some people arranged a flight for the doll like family. CATT (The Civil Aviation Authority of Thailand) urgently warned that Luk Thep dolls could not be consider as human, thus, were needed to be stored in storage rack during takeoff and landing. This

case is concerned with animism and worshipping of spirits in the cultural background. Hase (2009, p. 743) defined animism as “recognizing the existence of souls in natural objects.” Classic research in cultural anthropology, Tylor (1871) mentioned that main part of human is soul and it dwells in the body. Also, when people rely on animism in their daily life, they tend to anthropomorphize the objects they encounter (Guthrie, 1993). That is, Thai people anthropomorphize dolls as human being based on their animistic religion.

In addition, the spirits called “Phii” are widely believed in Thailand (Pongsapitaksanti 2016). Onosawa (1983) described various kind of Phii: for example, spirit of village, guardian god of one’s birthplace, evil spirit and so on. Moreover, worshipping of spirits is the important part of life for Thai people.

Animism and worshipping of spirits are both anthropomorphizing behavior and constitute specific characteristics of Thai people not only in daily life but also in economic decision-making. The extent that regular Japanese rely on Animism and worshipping of spirits is much lower than Thai people. Therefore, we expect that there is difference for treating anthropomorphized and character products between Thai and Japanese people and claim that Thailand is appropriate research site in conducting international comparison with Japan.

3 Framework and Hypothesis of This Study

3-1 Framework

Figure1 : Framework of this research

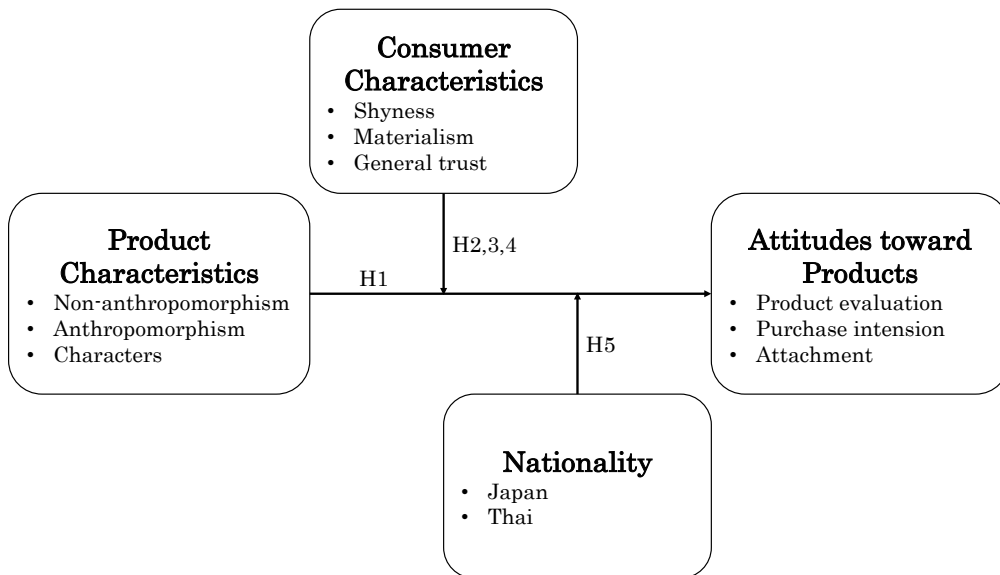


Figure 1 shows that product characteristics influence the consumer attitudes toward products moderated by consumer characteristics and nationality. The product characteristics include three conditions: non-anthropomorphic products, anthropomorphic products and products attaching characters. As mentioned above, prior study mainly focused on non-anthropomorphic or anthropomorphic conditions. Incorporating the third condition – i.e. character – into our framework, we can expect more practical analysis. The consumer attitudes toward products include product

evaluation, purchase intention and attachment. Each variable represents time series of purchasing behavior: product evaluation for the pre-purchase point, purchase intention for the point of purchase and attachment for the after-purchase point. We put consumer characteristics (shyness, materialism and general trust) and nationalities (Japan vs. Thailand) as moderating variables into our framework. Among consumer characteristics, whereas materialism and general trust are well-cited variables in prior research (Kim and Kramer, 2015; Touré-Tillery and McGill, 2015), shyness is selected in terms of its impact on possession of products attached characters. Nationality as another moderating variable is set to find out cultural differences for the relationship between product characteristics and attitudes for products.

3-2 Hypothesis

Relationship between Product Characteristics and Consumer Attitudes

We predict that consumer attitudes for products vary on product characteristics. Consumer attitudes are divided in time series of buying behavior. Therefore, we assume that there are relationships between 3 conditions (non-anthropomorphism, anthropomorphism and characters) and 3 dependent variables (product evaluation, purchase intention and attachment).

H1: Under each condition of non-anthropomorphism, anthropomorphism, and characters, there are differences among (a) product evaluation, (b) purchase intention, and (c) attachment.

Shyness

Shyness is defined as “being nervous or embarrassed about meeting and speaking to other people” (Oxford Advance Learner’s Dictionary of Current English 2005, p. 1595). Narita (1993) classified shyness into consciousness of shyness (awkward and self-insecurity feelings) and communication anxiousness (abashment, interpersonal tension and sexual situation). We focus on “awkward” factor. Awkward feeling tends to occur when consumers are conscious about others’ eyes. We think that when consumers use anthropomorphic and character products, they feel awkward to possess these products.

H2: Under each condition of non-anthropomorphism, anthropomorphism, and characters, shyness moderates (a) product evaluation, (b) purchase intention, and (c) attachment.

Materialism

Materialism is defined as “the importance ascribed to the ownership and acquisition of material goods in achieving major life goals or desired states” (Richins, 2004, p. 210). The existent research showed the relationship between materialism and anthropomorphism. Kim and Kramer (2015) investigated whether materialists saw the product under anthropomorphism condition as a partner or a servant and how materialism affects purchase intention. As a result, materialists tended to regard the anthropomorphic product as a servant more than non-materialists did. This shows that materialists desire the connection with the product like a master-servant relationship, want to become a master and consequently enhanced their possessiveness and their purchase intention. Materialists emphasize on the possession of things without the spiritual connection with the things. We focus on this materialists’ characteristic and investigate how materialism affect the consumer attitudes toward products under each product condition of non-anthropomorphism, anthropomorphism and products attaching characters.

H3: Under each condition of non-anthropomorphism, anthropomorphism, and

characters, materialism moderates (a) product evaluation, (b) purchase intention, (c) attachment.

General trust

General trust is defined as “a belief in the benevolence of human nature in general and thus is not limited to particular objects” (Yamagishi and Yamagishi 1994, p. 139). Because anthropomorphic products have human-like attributes, we consider that consumers form general trust to anthropomorphic products in their attitudes. Touré-Tillery and McGill (2015) examined how general trust of consumers influenced persuasiveness of advertisement messages conveyed by human or anthropomorphic messenger. The result of this research proved that high trusters reacted similarly to anthropomorphic and human messenger, but low trusters reacted more favorably to anthropomorphic messenger than human messenger. This prior research compared anthropomorphism with human, but we investigate how general trust affects the consumer attitudes for each condition of products (non-anthropomorphism, anthropomorphism and characters).

H4: Under each condition of non-anthropomorphism, anthropomorphism, and

characters, general trust moderates (a) product evaluation, (b) purchase intention and (c) attachment.

Nationality

As mentioned above, since it is important to conduct international research in anthropomorphism study, we set nationality as a moderating variable. We predict that consumers differently react to anthropomorphic products and the products attaching characters due to differences of cultural backgrounds. It is noted that nationality is a surrogate variable for culture. We claim that it is appropriate to use nationality (Thailand vs. Japan) as surrogate variable for culture, because the cultural heterogeneity between two countries is so considerable and the cultural homogeneity within each country is respectable.

H5: Under each condition of non-anthropomorphism, anthropomorphism, and characters, nationalities moderates (a) product evaluation, (b) purchase intention, and (c) attachment.

4 Empirical Study

4-1 Sample

We collected 300 undergraduate student' samples at Kansai University in 21-23th September 2016 (132 male, 166 female, 2 unclear). Their average age is 19.67 years old (range from 18 to 24 years old, SD = 1.090). Similarly, we collected 300 undergraduate student' samples at of Chulalongkorn University in 4-10th September 2016 (122 male, 167 female, 11 unclear). Their average age is 19.07 years old (range from 17 to 31 years old, SD = 1.806). A procedure of data collection is as follows. First, we asked respondents about shyness, materialism, and general trust to measure personal characters of participants. Next, we divided 300 samples into three groups (each group consist of 100 respondents). Then, we showed to each group three types of product photos that correspond to non-anthropomorphism, anthropomorphism and character (see Appendix). In previous studies of anthropomorphism, cars were used for stimulus. In contrast, since products features influence participant's answers, we choose the iPhone that is familiar with university students in both countries. Finally, we asked about demographics (age, gender, faculties and so on). We collected 296 valid responses in Thailand and 300 valid responses in Japan.

4-2 Scale

Table 1: Average, Standard deviation, Correlation coefficient and Cronbach's α reliability coefficient.

	Average	Standard Deviation	The coefficient of correlation and Cronbach's α reliability.					
			Shyness	Materialism	General Trust	Product Evaluation	Purchase Intention	Attachment
Shyness	4.2	0.88	$\alpha=.905$					
Materialism	3.87	0.965	.216**	$\alpha=.805$				
General Trust	4.02	1.088	.106*	.063	$\alpha = .851$			
Product Evaluation	4.34	1.073	.072	.151**	.178**	$\alpha = .871$		
Purchase Intention	4.35	1.536	.040	.171**	.120**	.677**		
Attachment	4.04	1.063	.051	.143**	.209**	.531**	.581**	$\alpha = .824$

** . Correlation coefficient is significant at the 1% level.

* . Correlation coefficient is significant at the 5% level.

Table 1 shows average, standard deviation, correlation coefficient and Cronbach's α reliability coefficient. All scales are 7-point Likert scale (1 = “strongly disagree”, 7 = “strongly agree”). 5 out of 6 scales are multi-item measures and purchase intention is single-item measure. As to Cronbach's α coefficient, all values exceed 0.8 and we think that this is fairly acceptable level. We employed established scales from previous studies (see Table 2).

Table2: Source of Scale

Consumer Characteristic		Attitudes Toward Products	
Shyness	Arimitsu (2001)	Purchase Intention	Taylor, Houlahan and Gabriel (1975)
Materialism	Richins (2004)	Product Evaluation	Sugitani (2009)
General Trust	Yamagishi (1994)	Attachment	Schifferstein, Zwartkruis-Pelgrim (2008)

4-3 Study 1

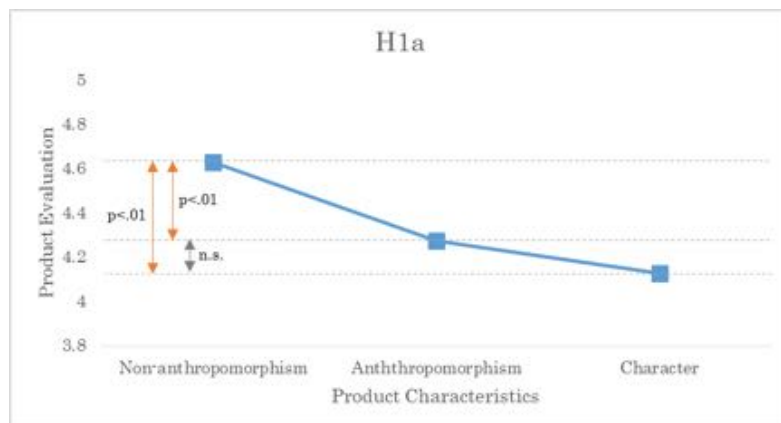
In study 1, we test H1. As shown in figure 2, significant difference can be observed between non-anthropomorphic products and anthropomorphic products, and non-anthropomorphic products and characters for all dependent variables (product evaluation, purchase intention and attachment). In other words, there are not significant difference between characters and anthropomorphic products.

We can see that consumer attitudes for products are higher in non-anthropomorphic products, followed in order by anthropomorphic products and characters. The detailed values are as follows. H1a (product evaluation): non-anthropomorphic products (M = 4.63, SD = .913) and anthropomorphic products (M = 4.28, SD = 1.063) and products attaching characters (M = 4.13, SD = 1.170). H1b (purchase intention): Non-anthropomorphic products (M = 4.90, SD = 1.35) and anthropomorphic products (M = 4.20, SD = 1.486) and products attaching characters (M

= 3.95, SD = 1.605). H1c (attachment): non-anthropomorphic products (M = 4.44, SD = .938) and anthropomorphic products (M = 3.85, SD = 1.013) and products attaching characters (M = 3.84, SD = 1.123).

As to H1a, there is significant difference between non-anthropomorphic products and anthropomorphic products ($p < 0.01$) and non-anthropomorphic products and characters ($p < 0.01$). As to H1b, there is significant difference between non-anthropomorphic products and anthropomorphic products ($p < 0.1$) and non-anthropomorphic products and characters ($p < 0.1$). As to H1c, there is significant difference between non-anthropomorphic products and anthropomorphic products ($p < 0.1$) and non-anthropomorphic products and characters ($p < 0.1$). Therefore, H1a, H1b and H1c are partially supported.

Figure 2: Results of H1



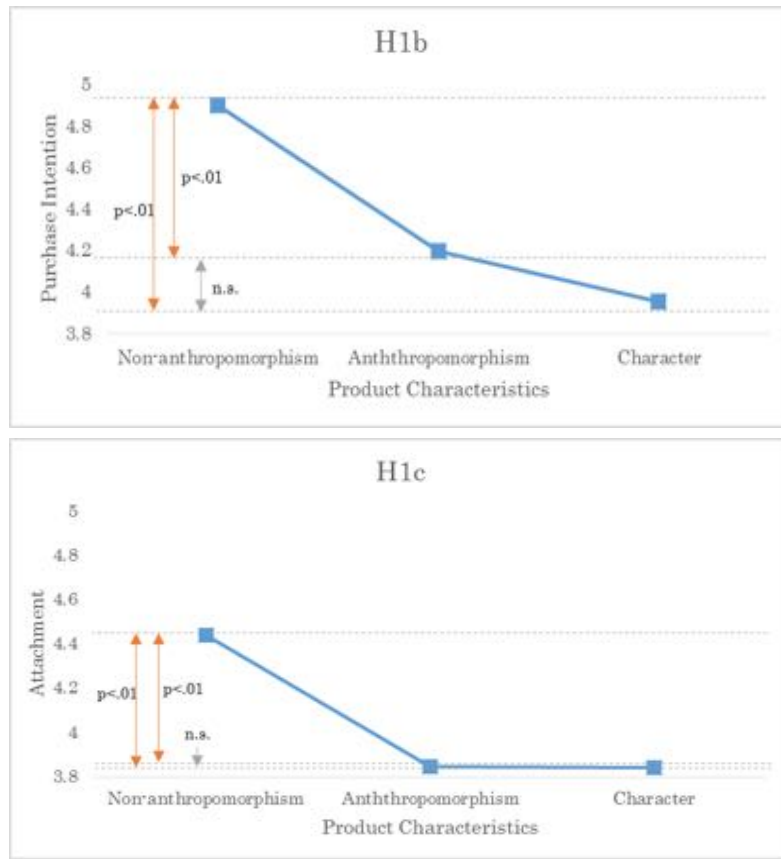


Table 3: Summary of Results for H2, H3 and H4

H/Consumer characteristics		Product Evaluation (a)		Purchase Intention (b)		Attachment (c)	
		Main effect/Interaction	Level of significance	Main effect/Interaction	Level of significance	Main effect/Interaction	Level of significance
H2	Shyness	Main effect	p < 5%	Nothing	n.s.	Main effect	p < 5%
H3	Materialism	Interaction	p < 5%	Main effect	p < 1%	Main effect	p < 1%
H4	General Trust	Main effect	p < 1%	Main effect	p < 5%	Main effect	p < 0.1%

4-4 Study 2

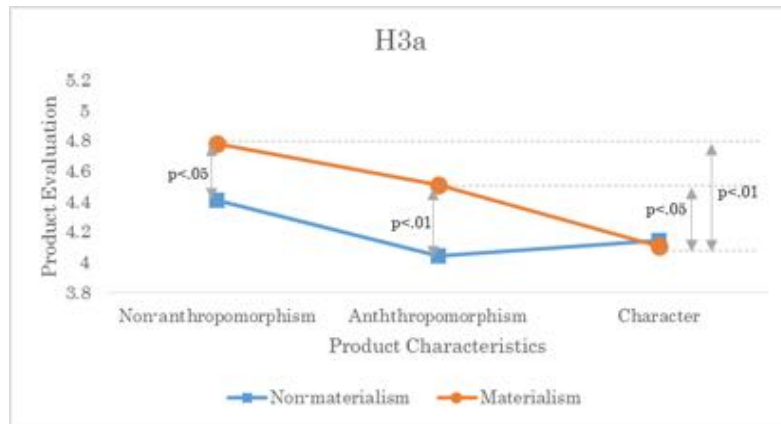
In study 2, we test H2, H3 and H4. Table 3 is the summary of hypothesis testing. We conduct two-way ANOVA employing 2 (consumer characteristics: low, high) × 3 (product characteristics: non-anthropomorphism, anthropomorphism, character)

design. The level of significance in Table 3 shows significant difference between consumer characteristics and consumer attitude for products. Each hypothesis are supported, when main effect and/or interaction is observed; we found interaction only in H3a.

As to H2a, there is main effect of shyness ($F(1, 538) = 4.042, p < .05$) on product evaluation. As to H2b, there is not main effect of shyness ($F(1, 544) = 2.957, p > .05$) on purchase intention. As to H2c, there is main effect of shyness ($F(1, 533) = 4.135, p < .05$) on attachment. The consumer group with higher shyness rates product evaluation and the attachment (but not purchase intention) much higher than the consumer group with lower shyness. Therefore, H2a and H2c are supported, but H2b is not supported.

As to H3a, there is main effect of materialism ($F(1, 573) = 9.409, p < .01$) on product evaluation. As to H3b, there is main effect of materialism ($F(1, 582) = 10.026, p < .05$) on purchase intention. As to H3c, there is main effect of materialism ($F(1, 566) = 12.034, p < .01$) on attachment. The consumer group with higher materialism rates product evaluation, purchase intention and the attachment much higher than the consumer group with lower materialism. Therefore, H3a, H3b and H3c are supported.

Figure 3: Result of H3a



In addition, as shown in Figure 3, there is interaction in the product evaluation ($F(2, 573) = 3.184, p < .05$). That is, the consumer group with high materialism rates product evaluation much higher than the consumer group with low materialism in non-anthropomorphism and anthropomorphism conditions, but reverse relationship can be seen in character condition. In other words, less materialistic consumers tend to put value on products attaching characters.

As to H4a, there is main effect of general trust ($F(1, 570) = 11.237, p < .01$) on product evaluation. As to H4b, there is main effect of general trust ($F(1, 578) = 4.787, p < .05$) on the purchase intention. As to H4c, there is main effect of general trust ($F(1, 564) = 17.485, p < .01$) on attachment. The consumer group with higher general trust rates product evaluation, purchase intention and the attachment much higher than the consumer group with lower general trust. Therefore, H4a, H4b and H4c are supported.

4-5 Study 3

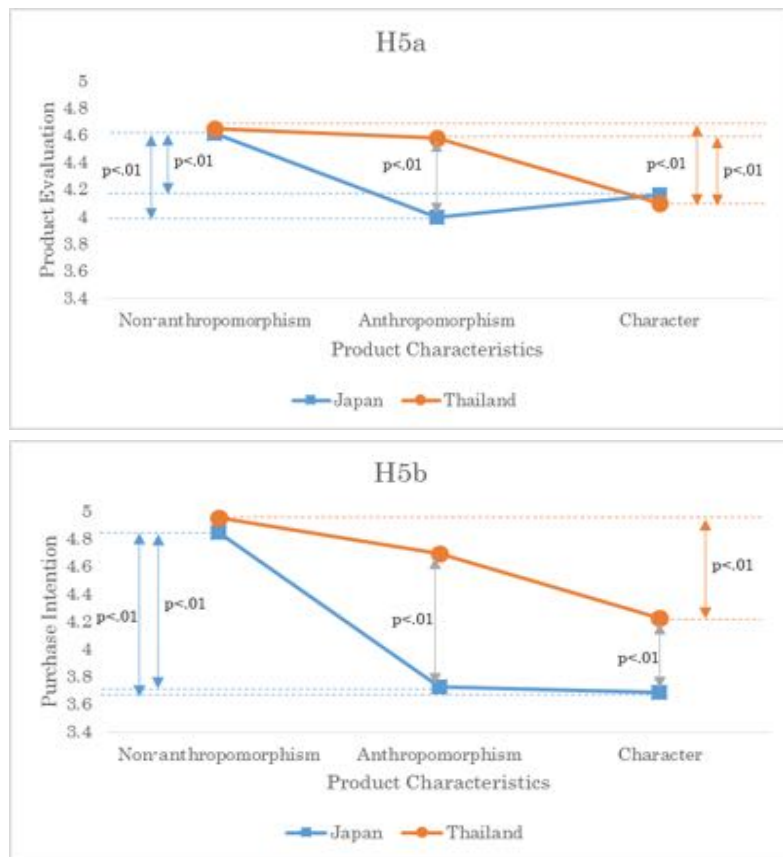
In study 3, we test H5. We conduct two-way ANOVA employing 2 (Nationality: Japan or Thailand) \times 3 (Product characteristic: non-anthropomorphism, anthropomorphism and character) design. As shown in Figure 4, Thai people tend to rate anthropomorphic products much higher than Japanese people.

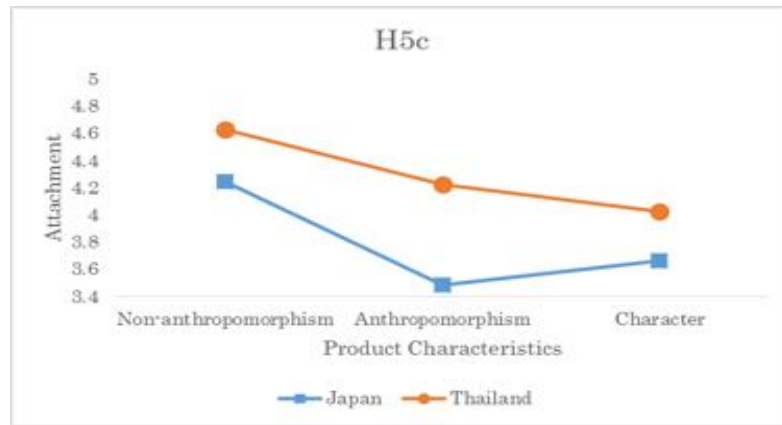
As to H5a, there is main effect of nationality ($F(1, 575) = 4.674, p < .05$) and interaction ($F(2, 575) = 5.555, p < .01$) on product evaluation. Under the condition of non-anthropomorphic products, product evaluation is high regardless of nationality. In contrast, product evaluation of Thai people is much higher than Japanese in anthropomorphic products condition ($p < .01$). Finally, there is interaction in character condition. This means Japanese people evaluate the products attaching characters much more than Thai people. Therefore, H5a is supported.

As to H5b, there is main effect of nationality ($F(1, 584) = 20.323, p < .01$) on purchase intention. Similar with H5a, purchase intention is high in each country in non-anthropomorphic products condition and purchase intention of Thai people is much higher than Japanese in anthropomorphic products condition ($p < .01$). Contrary to H5a, purchase intention of Thai people is much higher than Japanese in character condition. Thus, H5b was supported.

As to H5c, there is main effect of nationality ($F(1, 568) = 35.785, p < .01$) on attachment. Thai people tend to rate attachment much higher than Japanese in three conditions ($p < .01$). Thus, H5 (c) is supported.

Figure 4: Result of H5





5 Conclusion

5-1 Findings and Managerial Implications

Today, we see many products and advertisements using characters not only in Japan but also in many countries. However, the most of prior researches have focused on the reaction of consumers only when character is attached to package of foods for children. This brings some questions. How do consumers except children react to products attaching characters? How do consumers except children respond to products attaching characters except foods? Do consumers differently react to products attaching characters depending on cultural backgrounds? To resolve these questions, we developed framework with character condition and conducted survey on non-child consumers.

From results of our empirical tests, we found that consumers showed higher

attitudes toward non-anthropomorphic products than anthropomorphic products. However, consumer attitudes toward anthropomorphic products and products attaching characters were different depending on consumer characteristics and nationality. In study 1, consumers showed the lowest attitudes for products attaching characters. However, in study 2, we found that materialistic consumers put higher product evaluation toward products attaching characters than anthropomorphic products.

Based on finding from study 1 and 2, we claim that using characters as marketing tool is not necessarily effective for every consumer. Marketers must identify conditions that make character strategy more effective. Analyzing our data, we can say that (1) shy people have greater attachment to character products than anthropomorphic products, (2) non-materialists prefer character products to anthropomorphic products and (3) low-trusters' purchase intention and attachment of character products are much higher than that of anthropomorphic products.

In study 3, under each condition of product characteristics, we found that nationality influences attitudes toward products. Thai and Japanese people showed to different attitudes toward products: whereas Thai people prefer anthropomorphic products, Japanese people do character products.

Given finding from study 3, we recommend anthropomorphic strategy in

Thailand and character strategy in Japan. This recommendation seems to be counter-intuitive. We choose Thailand for target country of international comparison, because we assumed that animism and worshiping of spirits in Thailand connected to anthropomorphism and characters as marketing tool. Conducting international comparison between Thailand and Japan, we re-realize effectiveness of anthropomorphic strategy in Thailand and Japanese character preference. We believe that knowledge created by cross-cultural experiences is useful and helpful for international marketers.

5-2 Limitations and Further Research

Finally, we mention the limitations of our study and the direction of further research. First limitation is concerning to sampling. We collected only student samples. As a result, there is possibility of bias arising from limited sampling frame. Extending sampling frame to lower age respondents than university students, we will be able to conduct more proper analysis of character strategy.

Second limitation is questionnaire development. Compared to prior research, since the amount of information on our stimulus (i.e. smart phone pictures and explanatory texts) was not sufficient, respondents might be hard to understand

research context. To solve this problem, we recommend making more pre-tests in advance, reflecting the result of pre-test to questionnaire development and identifying proper amount of information on stimulus.

Third, we conducted international comparison only in two countries. The effectiveness of managerial implications is closely related to and depends on the research contexts. Therefore, future research should be extended to more diverse research contexts and this leads to development of international marketing theory and practice.

Reference

和文書籍

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インターネット引用

「タイでブームの人形、航空当局が「人間でない」と表明」

<http://www.afpbb.com/articles/-/3074819> (2016年9月23日アクセス)

Appendix

1. Please answer the following questions.

	Questions	strongly disagree	disagree	slightly disagree	neither agree nor disagree	slightly agree	agree	strongly agree
1	When you meet people who have not met for a long time (e.g. childhood friend), you feel shy.	1	2	3	4	5	6	7
2	When your writing (e.g. essay) are read aloud in public, you feel shy.	1	2	3	4	5	6	7
3	When you talk with your favorite person, you feel shy.	1	2	3	4	5	6	7
4	When you talk about yourself to stranger, you feel shy.	1	2	3	4	5	6	7
5	When you tell your favorite person your love, you feel shy.	1	2	3	4	5	6	7
6	When you give up the seat to the old person, you feel shy.	1	2	3	4	5	6	7
7	When you are talked to your favorite person, you feel shy.	1	2	3	4	5	6	7
8	When you wear different clothes as usual (e.g. dress and suit), you feel shy.	1	2	3	4	5	6	7
9	When you meet others gaze directly, you feel shy.	1	2	3	4	5	6	7
10	When you meet people who you loved before, you feel shy.	1	2	3	4	5	6	7
11	When you call your friends and their parents answer the phone, you feel shy.	1	2	3	4	5	6	7
12	When you introduce yourself in front of many audience, you feel shy.	1	2	3	4	5	6	7
13	When you walk with your boyfriend or girlfriend and meet your friends, you feel shy.	1	2	3	4	5	6	7
14	When you attract everyone's gaze in front of many people, you feel shy.	1	2	3	4	5	6	7
15	When you talk with a stranger who you meet for the first time, you feel shy.	1	2	3	4	5	6	7
16	When you are told "I love you" by someone, you feel shy.	1	2	3	4	5	6	7
17	When you have to be alone with many strangers, you feel shy.	1	2	3	4	5	6	7
18	When you are praised in public, you feel shy.	1	2	3	4	5	6	7
19	When you are stared at by person of the opposite sex, you feel shy.	1	2	3	4	5	6	7
20	When you called over the wrong name, you feel shy	1	2	3	4	5	6	7
21	When you are alone in a lot of other sex, you feel shy.	1	2	3	4	5	6	7
22	When you are flattered by person of the opposite sex, you feel shy.	1	2	3	4	5	6	7
23	When you have one-on-one communication with elders, you feel shy.	1	2	3	4	5	6	7
24	When you express your opinions in front of a lot of people, you feel shy.	1	2	3	4	5	6	7
25	I admire people who own expensive homes, cars, and clothes.	1	2	3	4	5	6	7
26	The things I own say a lot about how well I'm doing in life.	1	2	3	4	5	6	7
27	I like to own things that impress people.	1	2	3	4	5	6	7
28	I try to keep my life simple, as far as possessions are concerned.	1	2	3	4	5	6	7
29	Buying things gives me a lot of pleasure.	1	2	3	4	5	6	7
30	I like a lot of luxury in my life.	1	2	3	4	5	6	7
31	My life would be better if I owned certain things I don't have.	1	2	3	4	5	6	7
32	I'd be happier if I could afford to buy more things.	1	2	3	4	5	6	7
33	It sometimes bothers me quite a bit that I can't afford to buy all the things I'd like.	1	2	3	4	5	6	7
34	I admire people who own expensive homes, cars, and clothes.	1	2	3	4	5	6	7
35	The things I own say a lot about how well I'm doing in life.	1	2	3	4	5	6	7
36	I like to own things that impress people.	1	2	3	4	5	6	7
37	I try to keep my life simple, as far as possessions are concerned.	1	2	3	4	5	6	7
38	Buying things gives me a lot of pleasure.	1	2	3	4	5	6	7
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40	My life would be better if I owned certain things I don't have.	1	2	3	4	5	6	7
41	I'd be happier if I could afford to buy more things.	1	2	3	4	5	6	7
42	It sometimes bothers me quite a bit that I can't afford to buy all the things I'd like.	1	2	3	4	5	6	7
43	Most people are basically honest.	1	2	3	4	5	6	7
44	Most people are trustworthy.	1	2	3	4	5	6	7
45	Most people are basically good and kind.	1	2	3	4	5	6	7
46	Most people are trustful of others.	1	2	3	4	5	6	7
47	I am trustful.	1	2	3	4	5	6	7
48	Most people will respond in kind when they are trusted by others.	1	2	3	4	5	6	7

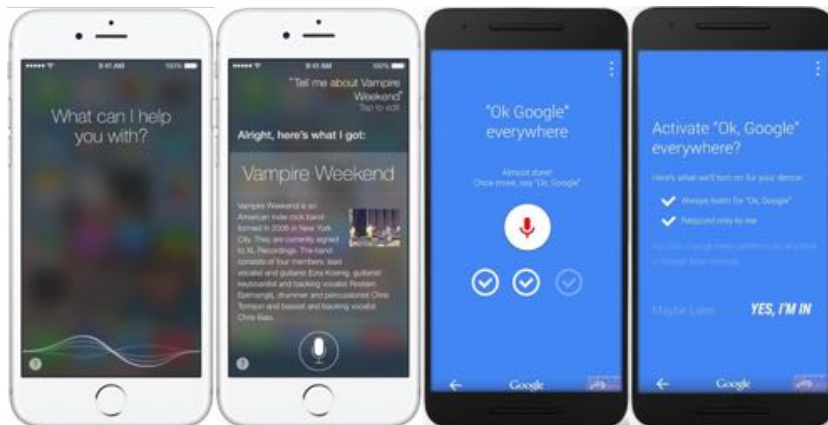
- Non-anthropomorphism condition

2. Please answer the following questions, seeing the smartphones as simple things.



- Anthropomorphism condition

2. Please answer the following questions, focusing on the function which can respond like human (e.g. voice-recognition application)



- Character condition

What character do you like? ()

3. Please answer the following questions, focusing on characters.



Questions		strongly disagree	disagree	slightly disagree	neither agree nor disagree	slightly agree	agree	strongly agree
1	This product is fashionable.	1	2	3	4	5	6	7
2	You are proud of this product.	1	2	3	4	5	6	7
3	This product is attractive.	1	2	3	4	5	6	7
4	This product is innovative.	1	2	3	4	5	6	7
5	This product is good design.	1	2	3	4	5	6	7
6	This product have good taste.	1	2	3	4	5	6	7
7	You want to buy this product.	1	2	3	4	5	6	7
8	I feel emotionally connected to this product.	1	2	3	4	5	6	7
9	This product is very dear to me.	1	2	3	4	5	6	7
10	I have a bond with this product.	1	2	3	4	5	6	7
11	This product has no special meaning for me.	1	2	3	4	5	6	7
12	This product does not move me.	1	2	3	4	5	6	7
13	I am very attached to this product.	1	2	3	4	5	6	7
14	This product has a special place in my life.	1	2	3	4	5	6	7
15	This product means a lot to me.	1	2	3	4	5	6	7
16	I have no feelings for this product.	1	2	3	4	5	6	7

3. Please answer the following questions about yourself.

- ① Sex 1. male 2. female
- ② Age ()
- ③ Nationality 1. Japan 2. Thailand 3. others ()
- ④ Occupation ()
- ⑤ When you answer “student” at ④.
Faculty ()
- ⑥ How much money can you spend freely for a month? ()
- ⑦ Do you like Japan? dislike 1-----2-----3-----4-----5 like