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Psychological Distance and Media Coverage Regarding Foreign Nations

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Abstract

This study explored the relationship between media representation of foreign countries and social distances toward those countries, focusing on psychological distance. Research on the construal-level theory has shown that as psychological distance in terms of time, space, social distance, and hypotheticality increases, the level of construal becomes abstract and vice versa. Moreover, according to the linguistic category model, adjectives are more abstract than verbs concerning linguistic abstraction. News reports the actual events of the day. Additionally, the spatial distance between Japan and a specific foreign country is usually constant. Assuming that the distances in time, space, and hypotheticality are constant to some extent, social distance toward a country would lead to more abstract language expression. This study targets the sentences with China and the United States as the subjects extracted from newspaper articles appearing on the front pages in the morning papers from 1991 to 2020 ($N=865$). Further, the annual national survey data regarding familiarities with these countries was collected from the Japanese Cabinet Office's homepage. The results of this study showed that the average number of adjectives per year in sentences about the United States was more than that of China. Nonetheless, no such difference was seen for verbs, and that there was no relationship between familiarities and appearance rate of adjectives and verbs in both countries. Furthermore, there was no significant difference between the average valences of adjectives from sentences about China and those from sentences about the United States. The results of this study are also discussed.

Keywords: psychological distance, social distance, linguistic abstraction, foreign news, morphological analysis

Many studies on the construal-level theory have determined that substantial psychological distances, regarding time, space, social distance, and hypotheticality, lead to more abstract construal and vice versa. Moreover, according to the linguistic

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category model, adjectives are more abstract than verbs concerning linguistic abstraction. The purpose of this study is to explore the relationship between linguistic abstraction in media coverage of foreign countries and social distance toward those countries.

Japanese newspaper articles about foreign countries were the targets of this study. Newspapers often report on actual events on the day. Additionally, the spatial distance between Japan and a specific foreign country is usually constant. In Japanese media, assuming that the distances in time, space, and hypotheticality are constant to some extent, the substantial social distance toward a country would lead to more abstract language expression.

This study makes two contributions to the literature. First, as a study of the construal-level theory, this study examines the relationship between linguistic abstraction and social distance in a real-world setting. Although there is a large body of research on this theory, most have examined this theory under artificial settings such as experiments (with a few exceptions, e.g., Bhatia & Walasek, 2016; Menegatti & Rubini, 2013). Second, as media research, the results of this study might provide a new perspective for research on media content. For example, research on the construal-level theory suggests that merely reporting on a specific country abstractly might cause those who expose it to construe that country as psychologically distant. This means that the media could affect how foreign nations are perceived in ways that differ from traditional media research examining media content. Therefore, this study also offers a new idea of media effects.

This study examines sentences with China and the United States as subjects extracted from newspaper articles from 1991 to 2020. Both China and the United States receive comprehensive coverage in Japan (Hagiwara, 2006; Kanayama & Cooper-Chen, 2005). Furthermore, the annual national survey conducted by the Japanese Cabinet Office collected data regarding the familiarities of these countries on their homepages. The current study explores whether linguistic abstraction in news reports changes depending on familiarity (social distance) with China and the United States or vice versa.

Literature Review

Construal-Level Theory

Construal-level theory (Liberman & Trope, 2008; Rim et al., 2013; Soderberg et al., 2014; Trope & Liberman, 2010, Trope, Liberman, & Wakslak, 2007) of psychological distance is a theoretical framework that links distance and abstraction in mental representation. Psychological distance is a subjective experience that something is close or far away from the self, here, and now (Trope & Liberman, 2010).

Herein, “distant” includes several aspects. For example, it may mean that an

object is physically located at a distance. Alternatively, it could mean that something will happen in the distant future. Interestingly, these different dimensions of psychological distance, regarding time, space, social distance, and hypotheticality, are interrelated: distance in one aspect is mentally related to distance in another aspect.

The psychological distance toward an object in these dimensions is related to how an object is represented mentally. While lower-level construal is concrete, relatively unstructured, and contextualized representations that include subordinate and incidental features of events, higher-level construal is abstract, schematic, and decontextualized representations that extract the gist from the available information (Liberman & Trope, 2008). Research on the construal-level theory has shown that the greater the psychological distance to an event or object, the higher the construal level used to represent it. Moreover, the reverse is true: higher construal levels lead to a psychologically greater distance. Furthermore, the level of construal influences one's judgments and actions regarding that object (the downstream consequences of abstraction).

Social distance, the target of this study, has been a classical research topic since Park (1924), which refers to social distance as the degree of intimacy that measures the influence with which each has over the other, or Bogardus (1933), which developed a social distance scale. Research on the construal-level theory has demonstrated that perceived distance in space (Matthews & Matlock, 2011; Won, Shriram, & Tamir, 2018), time (Stephan, Liberman, & Trope, 2011) correlate with social distance. The actions of similar others are mentally represented and judged concerning lower-level construals relative to those of dissimilar others (Liviatan, Trope, & Liberman, 2008). Additionally, when spatial, temporal, and social distance increased, linguistic expressions became more abstract, as the construal-level theory held (Snefjella & Kuperman, 2015), as described later.

The construal-level theory is increasingly being applied to media studies. For example, the construal-level theory has been used to reinvestigate classical media effects. For instance, Ellithorpe, Brookes, and Ewoldsen (2016) revealed that a concrete mindset was associated with the first-order cultivation effect. The more media use a person exhibited, the more likely they gave the "media answer" when making judgments. However, when a person was thinking abstractly, the role of the media in making frequency or probability judgments diminished.

Another line of research using the construal-level theory regards psychological distance and online communication in which communicators are free from temporal or spatial distance. For example, Sungur, van Koningsbruggen, and Hartmann (2019) showed that the association between spatial distance and hypothetical distance appeared in Twitter. Additionally, Kwon, Chadha, and Pellizzaro (2017) examined the framing of terrorism news on Twitter and found that greater distance generally engenders more abstract storytelling. Furthermore, Kwon, Chadha, and

Wang (2019) analyzed Twitter textual data on hate crime news using structural topic modeling and found that individual-oriented conversations (low construal) were more prominent in tweets that originated from geographically close locations. Contrastingly, tweets that originated from geographically distant distances tended to contain macro-level thematic discussions (high construal). However, the effects of geographic distance were not always consistent with the construal-level theory when nationalities were considered. These studies show that the assumptions of the construal-level theory generally hold true even in the context of online communication.

Meanwhile, some research focuses on means of communication, such as words or pictures. Pictures are concrete representations that bear a physical resemblance to their referent objects, whereas words are abstract representations that carry the essence of that object (Amit, Algom, & Trope, 2009). These studies demonstrate that the processing of pictures is facilitated when they are psychologically near, and the processing of words is facilitated when they are psychologically distant (Amit, Algom, & Trope, 2009). As a means of communication, people increasingly prefer pictures for communication with those who are proximal, whereas words are increasingly chosen for communication with distal others (Amit, Wakslak, & Trope, 2013).

Psychological Distance and Linguistic Abstraction

One of the clues of abstractness in a person's mental representation of an object or an event is the person's verbal description of those things. The linguistic category model classifies verbs and adjectives in linguistic abstraction (Semin & Fiedler, 1988, 1992). According to Semin and Fiedler (1988), adjectives are more abstract than verbs, and verbs are classified into three types according to their level of abstraction: descriptive action verbs (DAVs), interpretive action verbs (IAVs), and state verbs (SVs), in order of concreteness. DAVs refer to one particular activity and at least one physically invariant feature of the action; action has a clear beginning and end; usually do not have positive or negative connotations. IAVs refer to a general class of behaviors, have a defined action with a beginning and end, and have positive or negative semantic connotations. Finally, SVs refer to mental or emotional states; there is no clear definition of beginning and end; they do not readily take the progressive form; not freely used in imperatives (Semin & Fiedler, 1988, p. 560).

This model has been applied to research on the construal-level theory to demonstrate the links between psychological distance and abstraction. For example, in Fujita et al. (2006, Study 2), participants watched a video ostensibly filmed at a spatially distant or near the location and then described what they saw in writing. These written descriptions were analyzed for the abstractness of the language using the coding scheme of the linguistic category model. The results showed that participants used more abstract language to describe an event that ostensibly

occurred at a spatially distant location than to describe an event that occurred at a spatially near location. Hansen and Wänke (2010) examined the relationship between linguistic concreteness and construal on subjective truth using concrete vs. abstract statements based on the linguistic category model and found that concrete statements were judged as more probably true than abstract statements. Menegatti and Rubini (2013) found that politicians tailor the level of abstraction of their messages to meet the characteristics of their addressees. Finally, Wakslak, Smith, and Han (2014, Experiment 4), using the scheme of the linguistic category model, revealed that participants reading previous respondents' statements judged the abstract respondents as more powerful than the concrete respondents.

In this study, the rate of occurrence of verbs and adjectives per sentence was used to measure language abstraction. Although there are cultural differences in adjectives and verbs in describing a person that East Asians prefer verbs whereas Westerners prefer adjectives (Maass et al., 2006), adjectives would be generally more abstract and stereotypical than verbs, because adjectives often describe properties by their nature.

Research on the linguistic category model has found the relationship between language abstraction and stereotypes. Maass et al. (1989) found that the same socially desirable behavior was encoded at a higher level of abstraction when performed by an in-group member than when performed by an out-group member. Contrastingly, desirable out-group behavior was more likely to be encoded as concrete behavioral instances without abstraction beyond the given information (linguistic intergroup bias). From these results, Maass et al. (1989) pointed out the implications of differential language use that might contribute to the persistence of stereotypes. Linguistic intergroup bias has been partially confirmed in Japan (Tanabe & Oka, 2001). In addition to linguistic intergroup bias, Wigboldus, Semin, and Spears (2000) proposed and demonstrated linguistic expectancy bias that expectancy-consistent behavior is described at a higher level of abstraction than expectancy-inconsistent behavior. Suga and Karasawa (2006) showed that stereotypes for out-groups were strongly reflected in linguistic expressions and that linguistic terms have a beneficial effect in maintaining out-group stereotypical expectations. In contrast, stereotypical expectations of the in-group were weaker and less likely to be reflected in linguistic expressions and consequently less likely to be maintained.

Media Content Regarding Foreign Countries and Its Effects: Focusing on the Japanese Media

Media content has long been a significant concern in media studies. As Shoemaker and Reese (1996) described, mass media does not mirror the world around us; somewhat, media content is shaped by various factors that result in different versions of reality. Nevertheless, it is the basis of media impact.

Among media content targeted for previous research, foreign news, the focus of this study, has continued to draw researchers' interest as an essential topic for consideration because of its contribution to the formation of the viewers' images or favorabilities of foreign countries. Additionally, news on foreign affairs was supposed to significantly impact readers because it is usually challenging to experience foreign countries. The less direct experience people have with a given issue, the more they rely on news media for related information and interpretation (Zucker, 1978).

Regarding research on the Japanese news media, for example, Kanayama and Cooper-Chen (2005) revealed that Japanese national newspapers covered more international news than television and that among international news, "Foreign News Abroad" (news about foreign countries that occurred overseas) accounts for nearly 60%. Based on an analysis of news coverage on Japanese TV programs, Hagiwara (2006) found that the United States, China, South Korea, Iraq, and North Korea received the most considerable news coverage. Moreover, while the United States, China, and South Korea had stable coverage and a wide range of content, the coverage of Iraq and North Korea focused on specific aspects, and its amount fluctuated considerably depending on the time of year. Hagiwara (2006) also found that news coverage increased rapidly whenever there was an incident involving Japanese people. Yamamoto (2006) found that when foreign-related TV news was categorized into international regions, Asia was the most common region for hard news, while Europe was the most common region for soft news. Kamise (2007) analyzed foreign-related information in the Athens Olympic coverage and revealed that Greece and the United States accounted for nearly 30% of the coverage. Almost 60% of the Olympic coverage was mentioned in Japan's opponents. Shibuya (2009) focused on images of China in TV coverage on the Beijing Olympics and found that more than 80% of the news items were directly related to the Beijing Olympics. Furthermore, the most significant number of Chinese speakers appearing in China-related news items were ordinary citizens. Beijing was the most common location, followed by Sichuan Province, where a powerful earthquake occurred in May.

Another study of foreign images depicted in the media is Hagiwara (2004), who examined foreign elements in Japanese TV commercials and found a high dependence on foreign images in Japanese TV commercials with dominant Western images. Taka (2014, 2015) analyzed Japanese tweets about Korean and Chinese people and found that many Japanese tweets about Korean people and Chinese people were negative, with a small number of accounts posting many posts.

There is also a growing body of research on the impact of foreign information on the media. First, some research has examined the relationship between media use, including news about foreign countries and foreign images. For example, Hagiwara (2007) examined the relationship between undergraduate students' media use and their images of foreign countries. The study revealed that among undergraduate

students in Japan, compared to Asia and Europe, the knowledge about Africa, the Middle East, and Latin America was generally lower. The recall of country names in these regions was facilitated by news exposure in newspapers and the Internet, including watching international sporting events. Sakuma and Hiyoshi (2016a) also examined the relationship between undergraduate students' media use and their images of foreigners. They found that the image of foreigners based on the two dimensions of intellectual ability and physical ability could have a two-sided value stereotype in those two dimensions. Further, media use generally formed a positive image of foreigners.

Some studies have examined the relationship between foreign images and media exposure regarding international sporting events such as the Olympics and the World Cup, mainly based on the mere exposure effect (Zajonc, 1968) and positive media coverage. For example, Mukaida et al. (2001) found from a panel survey that favorabilities and similarity perceptions toward other countries generally increased immediately after the Atlanta Olympics. The most influential factor in these changes was the amount of media exposure. Sakuma, Yatsunami, and Li (2010) also found that national images changed positively through the surveys on national images conducted before and after the Beijing Olympics. Sakuma and Hiyoshi (2012) found that regarding the dimensions related to warmth, intellectual ability, and physical ability, many national images has changed. Most of the changes were positive, compared to before and after the 2010 FIFA World Cup in South Africa. Sakuma and Hiyoshi (2016b) explored factors affecting changes in national images. They indicated that TV viewing was suggested to affect changes in national images before and after the 2010 FIFA World Cup in South Africa.

However, some studies on this topic have found that international sporting events are associated with negative foreign images. For example, Takagi and Sakamoto (1991) found that the Seoul Olympic Games have degraded images of other countries based on the results of their panel study. Regarding the reason for this result, Takagi and Sakamoto (1991) argued that Japanese respondents might feel a threat to their self-esteem in other countries because Japan performed poorly in this game. Kamise and Hagiwara (2003) also examined the effects of the Japan-Korea Joint World Cup in 2002 on images about foreign countries and foreigners using a panel survey. They found that the image of Koreans changed negatively, and this change depended on whether respondents were "happy" or "frustrated" with Korea's success. Furthermore, Kamise, Hagiwara, and Lee (2010), from a panel survey results targeted undergraduate students, showed that Chinese names were rarely mentioned in the names of foreigners who were recalled as Asians and that the Beijing Olympics caused a short-term negative change in images of Chinese people. Four months later, the image returned to that before the Olympics.

Some studies on this topic have found mixed results. For example, Mukaida et al. (2007) examined foreign people and Japanese images before and after the Sydney

Olympics. They found that significant increase in favorability after the Olympics was found only regarding the Japanese. In comparison, similarity perception increased after the Olympics than in the past regarding 9 out of 16 countries. It was confirmed that the greater the exposure to foreign athletes through the media, the higher the degree of favorability toward people from that country. Sakuma and Hiyoshi (2017) found that national images both positively and negatively changed before and after the London Olympics. Media use was supposed to contribute to changes in national image. Such inconsistent results in these studies have been attributed to factors such as the performances of Japanese athletes and teams, as discussed by Takagi and Sakamoto (1991).

Study Objective

As described above, research on the construal-level theory has showed that the dimensions of psychological distance, time, space, social distance, and hypotheticality are interrelated. Further, psychological distance is related to the level of construal. Additionally, research on the linguistic category model proposed the classification of verbs and adjectives in terms of linguistic abstraction and showed that adjectives are more abstract than verbs.

Regarding media depictions of foreign countries in Japan, various media content, including news, TV commercials, and social networking sites, has been analyzed, and their effects on images of foreign nations and foreign people were also investigated. These studies have showed that media use generally changed images of foreign countries positively, but some studies have shown results in the opposite direction.

The present study explores the relationship between linguistic abstraction in news reports about China and the United States and familiarity with those countries in Japan. Findings of previous studies on the construal-level theory led to the prediction that the linguistic abstract representations of those countries could make those countries psychologically distant and play a role in maintaining stereotypical expectations about those countries because abstract representations in media could make the object psychologically distant to the audience who read or watch them. This study investigates whether media maintains stereotypes from a perspective different from traditional media stereotyping studies. In exploring the direction of the effect, this study employs time series analysis to investigate the relationship between linguistic abstraction in news reports about China and the United States and familiarity with those countries. To this end, this study analyzes 30 years of data on language abstraction in newspaper reporting and social distance obtained from the Japanese Cabinet Office surveys in the corresponding year. Furthermore, for additional analyses, this study investigates the favorability of media depiction in news reports about China and the United States to explore the relationship between favorability and concreteness.

Method

Sentences from Japanese Newspaper Articles

Sentences with China and the United States as the subject, extracted from the Japanese newspaper *Yomiuri Shimbun* article database *YOMIDASU REKISHIKAN*, were used for analyses. *Yomiuri Shimbun* was selected for study because it is the most widely circulated newspaper in Japan and worldwide according to *Yomiuri Shimbun* homepage. If articles about China or the United States are analyzed, the adjectives and verbs contained in them will not necessarily be about China or the United States. Therefore, sentences with China and the United States as the subject extracted newspaper articles were analyzed because they could be guaranteed to be statements about China or the United States. However, notably, adjectives and verbs in sentences about China or the United States, the primary concern of this study, do not necessarily describe those countries.

Among articles appearing on the front pages in the morning papers from 1991 to 2020, sentences with China and the United States as the subject were extracted by searching “中国は,” “アメリカは,” and “米国は.” “中国” refers to China and both “アメリカ” and “米国” refer to the United States. “は” is one of the Japanese postpositional particles. Postpositional particles are parts of speech attached to other words, and “は” is often attached to a word to indicate that the word is the subject. From the keyword research results, sentences about China or the United States were selected for analysis.

Among them, (1) sentences that report about an event other than the day of or the day before, (2) sentences that report hypothetical content or guesses, and (3) sentences with two or more subjects were excluded. Interrogative sentences and sentences describing an event that continued from the past to the present were included in the analysis. Finally, the publication dates of sentences for analysis were recorded. Further, adjectives and verbs were extracted from those sentences using *McCab*, a morphological analysis tool for the Japanese language. The morphological analysis divides a sentence into morphemes (units of words that cannot be further divided).

Annual Data Regarding Familiarities

The annual national survey data regarding the familiarities toward China and the United States from 1991 to 2020, the same period as the sentences appearing in newspapers, were collected from the homepage of the Japanese Cabinet Office. According to the homepage of the Japanese Cabinet Office, this survey, titled “The Public Opinion Survey on Diplomacy,” has been conducted almost every year to ascertain the public’s awareness of diplomacy and serve as a reference for future policies by the Japanese Cabinet Office since 1975. Although the questionnaire

items used in this survey did not necessarily remain the same during this period, the questionnaire on familiarities to China and the United States used in this study was asked at least throughout the target period.

For the response categories used in “The Public Opinion Survey on Diplomacy,” “Feel strong affinity” was coded as 4. “Feel some affinity” was coded as 3. “Do not feel much affinity” was coded as 2. Finally, “Do not feel any affinity” was coded as 1. “I do not know” was omitted from the analysis. Average values were calculated for each country and year.

Results

Overview

A total of 865 sentences (421 sentences regarding China and 442 sentences regarding the United States) were analyzed. The average number of sentences for each year was 14.03 ($SD=9.56$) for China and 14.73 ($SD=8.98$) for the United States. The t-test results showed no significant difference in the average number of sentences per year between China and the United States (*n.s.*).

From these sentences, adjectives and verbs were extracted. The average number of adjectives per sentence for each year was 0.04 ($SD=0.04$) in China and 0.18 ($SD=0.12$) in the United States. Further, each year’s average number of verbs was 2.15 ($SD=0.68$) in China and 2.18 ($SD=0.49$) in the United States. There was a significant difference between the average per year between China and the United States for adjectives ($t(34.42)=-5.89$, $p<.001$), but not for verbs (*n.s.*). Regarding adjectives, the average number of adjectives per sentence from newspaper articles was significantly higher in China than in the United States.

The time-series changes of the average of adjectives and verbs per sentence for China and the United States are shown in Figures 1 and 2, respectively.

Figure 1. The Time-Series Change of Average of Adjectives and Verbs Per Year for China

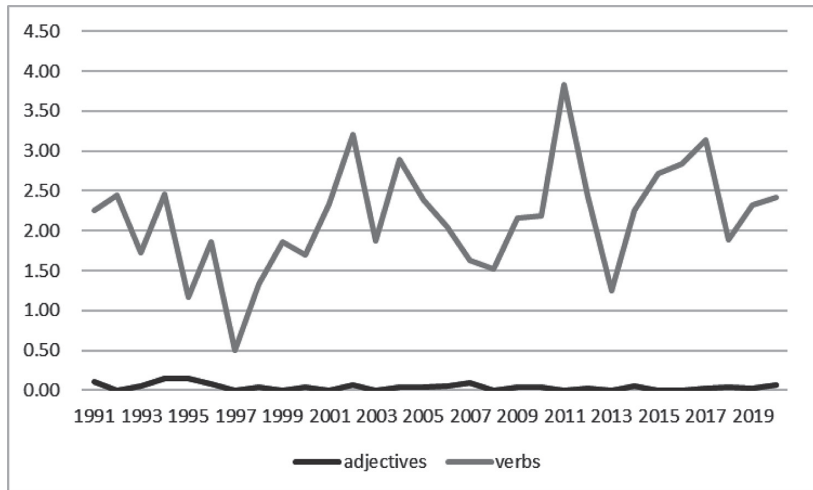
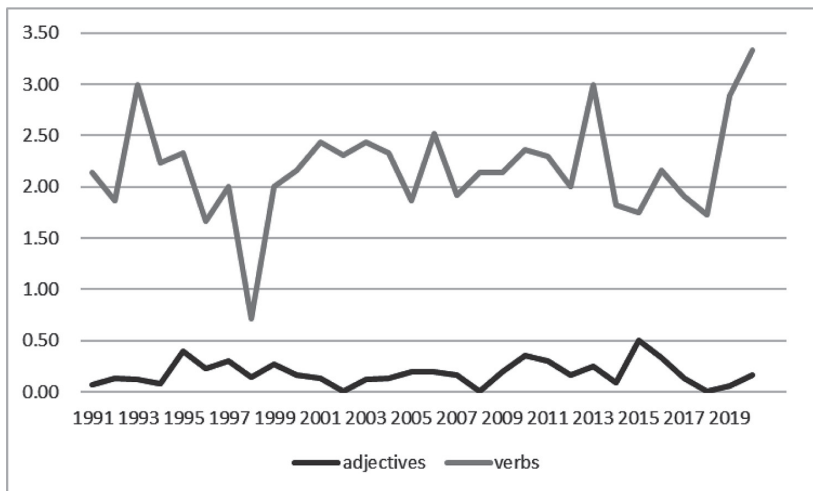
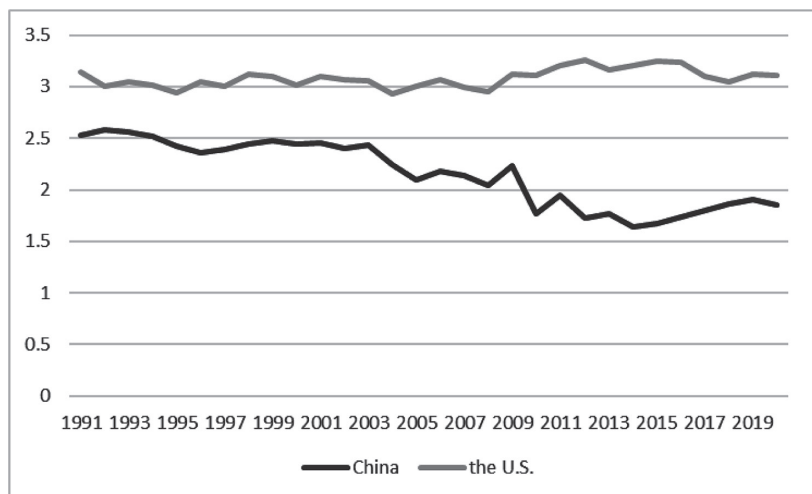


Figure 2. The Time-Series Change of Average of Adjectives and Verbs Per Year for the United States



Next, from the annual national survey data from 1991 to 2020 conducted by the Japanese Cabinet Office, the average familiarities were calculated for each country and year. The time-series change of familiarity toward China and the United States is shown in Figure 3 (“Feel strong affinity” as 4 and “Do not feel any affinity” as 1). The average familiarity with the United States was significantly higher than that of China ($t(33.64)=-15.51, p<.001$).

Figure 3. The Time-Series Change of Familiarities toward China and the United States



Note: created by the author based on data from <https://survey.gov-online.go.jp/index-gai.html>

Relationship between Social Distance and Linguistic Abstraction

Correlation analyses between familiarities and average adjectives and verbs per year were conducted for China and the United States. The analyses showed that all correlations were insignificant for either China or the United States (*n.s.*).

Time-series analyses were performed to examine the relationships between familiarity and the average of adjectives and verbs per year. First, unit root tests were conducted to determine the existence of unit roots in the time series for the analyses. The results of Augmented Dickey-Fuller tests rejected the null hypothesis of having a unit root for the target variables, although the result of the verb for China was significant at the 10% level. Next, VAR models were used for the estimations to use in the Granger causality tests. Finally, Granger causality tests were conducted to test the Granger-causal relationship regarding adjective → familiarity, familiarity → adjective, verb → familiarity, and familiarity → verb for China and the United States, respectively. The results of Granger causality tests showed that none of the relationships examined in this study were statistically significant (*n.s.*).

Additional Analysis

An adjective is a part of speech that describes a state or property. Notably, the adjectives included in sentences whose subjects are China or the United States do not necessarily represent their states or properties. However, examining the valences of adjectives in those sentences might help to get suggestions how China and the

United States were depicted in these sentences extracted from a Japanese newspaper.

Using the lists of words and their semantic orientations for Japanese (Takamura, Inui, & Okumura, 2005; downloaded from http://www.lr.pi.titech.ac.jp/~takamura/pndic_en.html), valence values of the adjectives (free) from the sentences about China ($N=32$) and those from the sentences about the United States ($N=61$) were identified. The value range is -1 to +1 (-1: supposed to be negative, +1: supposed to be positive). The t-test results showed no significant difference between the average values of adjectives from the sentences about China and those from the sentences about the United States that appeared in the list (China: $M=-0.08$, $SD=0.83$, $N=21$; the United States: $M=-0.29$, $SD=0.69$, $N=51$).

Discussion

This study aimed to explore media representations of foreign countries based on psychological distance. This study examined whether linguistic abstractions in news reports about foreign countries changed depending on the social distance from those countries or vice versa. This study extracted sentences from Japanese newspaper articles with China and the United States as the subject for 30 years. Further, the relationship between frequency rates of adjectives and verbs in those articles and familiarities with those countries collected from the Japanese Cabinet Office homepage were examined.

The results of this study were not in line with the prediction of the construal-level theory. According to the construal-level theory, as social distance increases, abstractness in language use increases because the level of construal becomes higher. However, this study showed no relationship between familiarity and the appearance rate of adjectives and verbs in the sentences regarding China and the United States extracted from newspaper articles.

Conversely, in the comparison by countries targeted, China and the United States, there were some differences: the average number of adjectives per sentence from newspaper articles was significantly higher in China than in the United States, and familiarity with China was significantly lower than that with the United States. In light of previous research findings on psychological distance, this result appears to be contradictory. Although linguistic abstraction was assumed to be associated with greater psychological distance, the results of this study show that China was described more concretely in language use and social distance from China was greater than that of the United States.

One possible reason for this result is that China is spatially closer to Japan than the United States. As described earlier, Fujita et al. (2006) found that an event occurred at a spatially distant location described more abstractly than an event occurred at a spatially near location. Therefore, concerning spatial distance, the results of this study seem to be in line with the prediction of the construal-level

theory, at least regarding linguistic abstraction, as a spatially distant country are depicted more abstractly. However, when it comes to familiarity, a measure of social distance in this study, familiarity with China, was lower than that of the United States. Therefore, concerning social distance, the results of this study seem to be inconsistent with the prediction of the construal-level theory.

Why didn't linguistic abstraction in news reporting change with familiarity? One possibility is that since news reporting is based on journalistic standards, it is less likely to fluctuate in its expression. However, this possibility is difficult to adopt because the number of adjectives in the United States was more than that in China. Instead, it would be more reasonable to assume from the results of this study that, regardless of changes in familiarity, some countries might be reported abstractly, while others might not. As described earlier, both China and the United States receive comprehensive coverage in Japan (Hagiwara, 2006; Kanayama & Cooper-Chen, 2005). A high volume of news coverage regarding China and the United States allowed for a certain number of sentences to be extracted for analysis. However, regarding China and the United States, there is also a lot of non-news information. Hagiwara (2007) indicated that for the United States and China, news exposure was associated with unfavorability and exposure to non-news information sources had a greater effect in determining their favorability. It is possible that social distance was also affected by information from non-news sources which might portray China and the United States differently from news.

Even so, however, the problem remains that social distance did not affect the linguistic abstraction of newspaper articles. Since China and the United States are countries, not persons, it is possible that sentences with them as the subject were descriptions of events and therefore were not determined by the social distances to those countries, but rather by social distances to the events reported in sentences. It is also possible that familiarity was not an appropriate indicator of social distance. For example, in terms of similarity, China could be considered to be more similar to Japan than the United States. However, it is difficult to infer the reason from the results of this study.

The only significant difference found in this study was between China and the United States, not within countries at different times. However, notably, the difference in the number of adjectives between China and the United States might represent a difference in the extent to which Japanese media stereotypically depict those countries, as described earlier, as adjectives in verbal descriptions about a specific country could somewhat reflect an attribute about that country. Although adjectives in sentences about China and the United States do not necessarily describe those countries, as mentioned above, the results of this study suggest that the United States might be portrayed more stereotypically than China in Japanese newspaper reports from 1991 to 2020 as one possibility. Although the results of this study did not support the prediction, this study found new evidence on media's representation

regarding foreign countries obtained using a different method from that used in the past.

Moreover, notably, there was no difference in valence between the adjectives used in the sentences about China and those in the sentences about the United States. In short, the United States might not have been depicted unfavorably compared to China, but it might be depicted abstractly. This study implies that references to China and the United States in the media might not differ in favorability, but their differences are more subtle. Although this study focused on media coverage in China and the United States, analytical methods used in this study are widely applicable to analyze other subjects, including persons, events, or other countries depicted in a variety of media content.

This study has some limitations. First, the examination of the relationship between social distance and linguistic abstraction in a real-world setting, as in the present study, could not exclude the possibility of intervention by a third variable. Therefore, the associations found in the results of this study need to be considered in a limited way as such. Second, there was a considerable variation in the number of sentences per year examined in this study. The number of subjects analyzed in some years was so small that it may have been insufficient to investigate trends. Third, although this study examined the number of adjectives and verbs per sentence, they might depend on the number of characters per sentence. Fourth, this study did not analyze verbs by subdividing them. As described earlier, verbs are classified into three types according to their level of abstraction: DAVs, IAVs, and SVs (Semin & Fiedler, 1988). Coding verbs using the linguistic category model's coding scheme would have provided insight into the abstractness of verbs used in news reporting.

As described earlier, research on the construal-level theory suggests that merely reporting on a specific country abstractly might cause those who expose it to construe that country as psychologically distant. The results of this study did not support the relationship between social distance and linguistic abstraction in newspaper articles regarding foreign countries. However, the results of this study do not mean that the construal-level theory or the linguistic category model are not worthy of use in media stereotyping studies. As described earlier, analytical methods used in this study are widely applicable to analyze a variety of media content. Furthermore, with the advancement of media, mainly text based media, including social networking sites, has been flourishing again. Therefore, for media research, the analysis of language use in those is likely to be a promising method in the future. The construal-level theory is a broad theoretical framework applicable in various fields, including media studies. Media studies could be more fruitful by incorporating the findings of multiple disciplines, such as this theory.

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