Can Imagined Contact Improve Intergroup Attitude in the Long Run?

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Abstract: The imagined contact method of cognitively manipulating intergroup relations has been reported to be widely successful in improving attitude toward the outgroup. However, little has been reported on its durability. Study 1 was conducted to test the stimulus scenario, involving 282 students who were given either an imagined contact scenario or a control, featuring Chinese as the outgroup. Pre-post measures of intergroup attitude were obtained. Imagined contact group showed some improvement in attitude. In study 2, the same method was applied to non-student participants (N=134), but this time, measurements were taken before, right after, one week after and one month after administering the imagined contact approach. Results indicated that the effect of imagined contact did not dissipate after one week, and even one month, particularly for the perception of social distance, but not for other measures. We discussed the potential of imagined contact in its application as a viable means of improving intergroup attitude toward Chinese in Japan.

Keywords: Imagined contact, indirect contact, intergroup anxiety, intergroup attitude, longitudinal, outgroup evaluation, social distance

1. Introduction

Multiple studies on imagined contact have accumulated evidence that simply imagining a rewarding interaction with an outgroup member would improve one's perception of that outgroup (Crisp & Turner, 2009; Stathi et al., 2014; Miles & Crisp, 2014; Hu & Takai, 2018). The imagined contact paradigm was devised by Crisp and Turner (2009), who have conducted a series of studies attesting to its effectiveness in changing intergroup attitudes, reducing prejudice, and increasing motivation to engage in direct contact with a particular outgroup. As a result of experiencing imagined contact, people feel more comfortable, and less apprehensive about having real contact with the outgroup (Turner et al., 2007).This study aimed to add to the literature, by first, testing this method in Japan, where it has not received much attention, and second, determining if its effects last beyond the laboratory experiment.

2. Theoretical Background of the Research

2.1. Contact Theory

Allport (1954) claimed that intergroup attitude can be improved through direct and personal contact with outgroup members, given certain requisite situations. Four essential factors were outlined: equal status, common goals, collaboration, and social climate supporting such contact. Equal status specifies that no hierarchical relationship exists between ingroup and outgroup (Cohen & Lotan, 1995), assuming fairness and equality during the contact. Common goals pertain to both members pursuing the same

goals. In order to achieve such goals, members of the two groups need to cooperate rather than compete (Pettigrew, 1998). Collaboration is required such that people must collaborate with outgroup members to mutually help each other achieve their set goals (Bettencourt et al., 1992). Support from social climate pertains to a facilitative climate in which intergroup contact is welcomed and valued. Contact, thus, under the optimal conditions can foster the formation of positive attitudes toward the outgroup.

However, such ideal conditions are not likely to exist in real life situations. Experimental manipulations can be used to create the desired contact situation, but that would require a fully controlled laboratory situation, with extensively trained confederates. In order to bypass the difficulty of setting up a real-life intergroup contact interaction, researchers have toyed with replacing direct contact with pseudo-contact methods. This new trend in contact theory research has introduced extended contact, imagined contact, vicarious contact and electronic contact. Extended contact arises when a significant other has a real-life relationship with an outgroup member, the nature of that relationship being very positive and satisfying. By virtue of merely witnessing a friend or family member engaging in such a good relationship, the positive attitude toward that outgroup extends out to oneself (Wright et al., 1997). Imagined contact occurs when individuals simply imagine having a positive interaction with an outgroup member, leading to prejudice resolution, and a more favorable intergroup attitude (Turner et al., 2007). Vicarious contact entails watching audiovisual recordings of an ingroup member positively interacting with an outgroup member, and such learned intergroup attitude and behavior extends out to one's own (Mozzariotta et al., 2011). Finally, electronic contact involves direct online contact through repeated chats with an outgroup member, gradually developing into a friendship, which greatly reduces intergroup bias, and this effect has been confirmed in the long term (White et al., 2015).

2.2. Imagined Contact

According to Crisp and Turner (2009), simply imagining a satisfying intergroup interaction with an outgroup member is sufficient to make marked gains in intergroup attitude, reducing prejudice toward them, and increasing willingness to have actual interaction with them. In a typical imagined contact study (Turner et al., 2007), young participants were asked to imagine a friendly interaction with an elderly stranger. Participants were asked to imagine the situation for one minute in the experimental group, while the control group imagined an outdoor scene. Results revealed that participants in the imagined contact condition showed a marked reduction in intergroup bias compared to the control group.

Another research tested imagined contact on children (Stathi et al., 2014). Caucasian children aged between seven and nine years old showed a more positive attitude, greater similarity and more willingness to have direct contact with Asians, when they were given the task of imagining a positive interaction with Asian children once a week over a period of three weeks.

According to Miles and Crisp's (2014) meta-analysis, there are more than 70 studies of imagined contact suggesting that it has positive influence on prejudice reduction and improvement of intergroup behavior (Miles & Crisp, 2014). Their overview revealed that imagined contact has a reliable impact on attitude, emotion, and behavior toward outgroup persons.

While Crisp and his cohorts claim that their imagined contact method is effective, their sampling has centered on mainly European countries, which are highly multicultural (Turner et al., 2007; Crisp & Turner, 2009). Their sampled societies allow for individuals to have regular contact between their targeted outgroup, hence they have ample prior, direct contact experience with their target. On the other hand, countries such as Japan are highly homogeneous in their ethnic composition, and people do not have outgroup contact on a daily basis. Crisp and colleagues have yet to test their method on this type of sample in Japan, whereas Hu and Takai (2018) experimented with its effects on Japanese regarding a Korean outgroup, showing evidence of its success.

Hoffarth and Hodson (2016) investigated the influence of prior direct contact on the effect of imagined contact, and discovered that for both gay and Muslim outgroup targets, imagined contact was more effective on people with less contact history than those with greater. Our study probes to see whether this lack of direct contact experience leads to greater effects in the case of Japanese, who live in a society which is close to being ethnically homogeneous, allowing for limited contact with any kind of outgroup ethnicity. According to the Japanese Ministry of Justice (2017), the non-Japanese population only occupies 1.88 percent of the whole population, making Japan closer to being homogeneous in ethnic composition than most other countries. Many studies have shown that Japanese nationals are close-minded, and are passive toward engaging in contact with non-Japanese (Takai, 1989; Mifune & Yokota, 2018), especially those who are Asian. However, the aging population of Japanese society is urging the government to consider a mass influx of foreign workers and immigrants. Should this happen, overcoming negative intergroup attitudes will become a priority for Japan, whose people need to become prepared for accepting huge numbers of non-Japanese immigrants.

Given the above state of research, we propose to further our examination of the feasibility of imagined contact as a prejudice mitigation tool in the Japanese context (Study 1), this time targeting Chinese as the outgroup. We also aim to determine the durability of the imagined contact effects, if any, through a longitudinal design spanning one month of follow up (Study 2).

3. Study 1

In previous research, Hu and Takai (2018) investigated the viability of the imagined contact approach to reduce prejudice toward Koreans on a Japanese sample. They found as part of a manipulation check, that Japanese hold negative emotions toward not only Koreans, but to Chinese as well. In this study, the researchers chose to focus on the Chinese as the targeted group, given that they compose the largest non-Japanese ethnic group, and thus, may pose a greater feeling of threat toward Japanese. Participants in the imagined contact condition were asked to read and imagine a scenario about having a positive interaction with a Chinese person. In the control condition, participants read and imagined a scenario on intragroup interaction (with another Japanese). The scenario incorporated the four essential factors from contact theory (Allport, 1954), i.e., equal status, common goals, collaborative atmosphere, and societal approval for contact.

In addition to the conditions of contact theory, specific scenarios were created by the researchers, making certain that participants can realistically imagine having a

satisfying contact with a Chinese. These scenarios serve as a behavioral script that provides a cognitive roadmap for future behavior (Gollwitzer, 1993).

Measures of the success of imagined contact were conducted through the variables of perceived social distance of the outgroup, intergroup anxiety, and outgroup evaluation, all targeting Chinese, and administered pre- and post-treatment. The rationale for the control group targeting another Japanese (in place of Chinese) was that a typical social interaction in Japan would be with another Japanese person (the likelihood for that happening is over 98%, as has been described above). We thought that presenting a Japanese target would not bring about a salience of "ingroupness" which might happen if this study were conducted in a multicultural society.

Social distance measured the socio-psychological distance between ingroup and outgroup (Wark & Galliher, 2007), indicating the acceptance of the outgroup within various relational ties, such as neighbors, co-workers, and kinship by marriage. We decided to include this variable, since Giacobbe et al. (2013) had noted social distance was affected by their imagined contact scenario involving a schizophrenic target.

Intergroup anxiety was included as a measure of negative emotion held toward the outgroup. Stephan and Stephan (1985) claimed that fear toward the outgroup would lead to avoidance of people of that group. An individuals would feel less anxiety after s/he experiences positive intergroup interaction. Turner et al. (2007) also observed a marked reduction in intergroup anxiety through their imagined contact application on heterosexual males, targeting gay persons.

Finally, outgroup evaluation refers to image of, and evaluation of the outgroup. Turner et al. (2007) had used this measure as an indication of the success of imagined contact treatment, and also noted that outgroup evaluation is mediated by reduction of intergroup anxiety, hence these two variables interact.

The hypotheses of Study 1 are as follows:

Hypothesis 1. Participants who imagined positive intergroup contact would have a more favorable outgroup evaluation compared to the control group.

Hypothesis 2. Participants who imagined positive intergroup contact would have less intergroup anxiety compared to the control group.

Hypothesis 3. Participants who imagined positive intergroup contact would perceive less social distance toward Chinese as compared to the control group.

3.1. Method

3.1.1. Participants

Participants were 282 university students (165 male, 115 female, 2 unknown M_{age} =19.62 *SD* = 1.03, range from 18 to 22) from two universities located in Central Japan. The locale for the sampling was a major urban center with a relatively small non-Japanese constituency. All participants were Japanese. Calls for participation were distributed randomly for experimental and control conditions, and students participated in their own time. An online questionnaire was set up using the Qualtrics site, separately for each condition, which they could access using QR codes on their mobile phones. Students followed directions on the website to assure consistency in administration.

3.1.2. Measure

Three existing, and tested measures were used to assess the intergroup attitude of Japanese toward Chinese, including social distance, intergroup anxiety, and outgroup evaluation.

Social distance was measured using Wark and Galliher's (2007) scale, evaluating preference of the outgroup for certain social relationships. Six items were included, asking for how much they would accept the outgroup (Chinese) in given relationships, ranging from 'close kinship by marriage,' to 'citizen in my country'. A seven-point scale was used, ranging from 1 'definitely accept' to 7 'definitely not accept'. This scale had adequate internal consistency, with a high Cronbach's alpha value (α=0.88).

Intergroup anxiety was measured by Voci and Hewstone's scale (2003), which included five items for the feelings they would experience. Participants were asked, 'If you were to meet a Chinese person in the future, how do you think you would feel?', to which respondents rated five feelings, including 'awkward(reversed)', 'happy', 'relaxed', 'self-conscious(reversed)', and 'competent' on seven-point scales, ranging from 1-'strongly agree' to 7- 'strongly disagree'. Cronbach's alpha for this scale also showed sufficient reliability (α=0.78).

Outgroup evaluation, following Voci and Hewtone (2003), was conducted by presenting five semantic differential adjective pairs on seven-point scales, including 'cold-warm', 'positive-negative' and 'suspicious-trusting'. Cronbach's alpha indicated good reliability (α=0.94).

3.1.3. Procedure

Participants were divided into two conditions: the imagined contact condition (N=143); and control condition (N=139), through random assignment. UR code participation forms were distributed, directing participants to either the experimental group site, or the control group site. Participation was voluntary, for extra course credit.

Measurements were taken before treatment, and after. Participants in the imagined contact condition were asked to read a scenario about positive intergroup interaction with a Chinese person. After reading the scenario, participants took two minutes to imagine what would be going on in the situation. A few questions were asked to make sure that participants had thought about the scene (e.g. In the story you imagined, where do you think you and Xiao Wang went? What was the most fun and interesting impression?). The actual scenario is attached below. Immediately after reading and imagining the scenario, participants were asked to respond to the questionnaire again with the same measures.

「Cooking Competition」

You are at your University's event, which you will have to pair up with a Chinese student and cook a meal. You teamed up with Xiao Wang (a typical Chinese nickname which can be construed to be either male or female), who is a Chinese student. You met him/her for the first time at this event. The pair must decide on the menu, go shopping and cook together whilst cooperating with each other. You have realized that you and Xiao Wang have a lot in common while spending time together. Xiao Wang's personality is similar to yours, and consequently, you quickly became good friends. Both of you enjoyed working

together, and conversating. Thanks to the great teamwork, Xiao Wang and you were able to make an amazing meal. At the end of the contest, your team won first place.
Please think about the detailed situations of this story.

In the control condition, participants read the same scenario but instead of having intergroup interaction, the scenario was about intragroup interaction (with a Japanese partner). Past studies on imagined contact had typically manipulated the control condition by having participants imagine an outside scene, something which is completely irrelevant to the experimental group. In our study, we opted to keep the control condition more consistent with the experimental condition, since we had not foreseen any risk of ingroup favoritism. This was because we believe Japanese would not construe an interaction with someone with a Japanese name as being "ingroup," but rather just a normal, typical interaction with a stranger, regardless of social identity. The situation in a multicultural society would be different, as both participants, and hypothesized targets would be identified and distinguished by their social categories.

3.2. Results

A 2x2 mixed model MANOVA design was utilized, with experimental condition (imagined contact, control) as the between-participants variable, and time (before, after) as the repeated-measures within-participants variable. The dependent variables were social distance, intergroup anxiety, and outgroup evaluation.

The MANOVA yielded significant Bartlett's sphericity measures for both between and within participants (χ^2 (5)=374.05, p<.000; χ^2 (5)=57.18, p<.000 respectively), hence a MANOVA was deemed appropriate. The hypotheses were tested using the interaction effects between experimental condition and time.

Outgroup evaluation indicated a significant difference between conditions over time (F(1,280) = 59.53, p=.00, η^2= .030). The result showed significant increase (p=.00) on the imagined contact group with time (before M=20.76, SD=6.46; after M=22.72, SD=6.88). Therefore, Hypothesis 1 was supported (Figure 1). However, the control group also showed a significant, if only a slight increase in outgroup evaluation with time (before M=20.31, SD=6.53; after M=20.89, SD=6.61; p=.01).

A significant time vs group interaction effect for intergroup anxiety was attained (F (1,270)= 2.87, p=.05, η^2=.015), showing a tendency effect in the decrease of intergroup anxiety for the imagined contact group (before M=21.77, SD=3.93; after M=21.22, SD=4.82; p=.09), while no such difference was observed for the control group (before M=22.89, SD=3.81; after (M=22.23, SD=4.52; p=.26). Hypothesis 2 was also marginally supported (Figure. 2).

For social distance, results indicated no significant interaction effect between conditions over time (F (1,262) = .55, p=.46, η^2=.003). The imagined contact group did not show significant decrease in social distance before (M=23.81, SD=6.32) and after (M=23.66, SD=6.16), and also there was no significant differences for the control group (before M=25.21, SD=6.33 vs. after M=24.67, SD=5.93) either. Hypothesis 3, therefore, was not supported (Figure. 3).

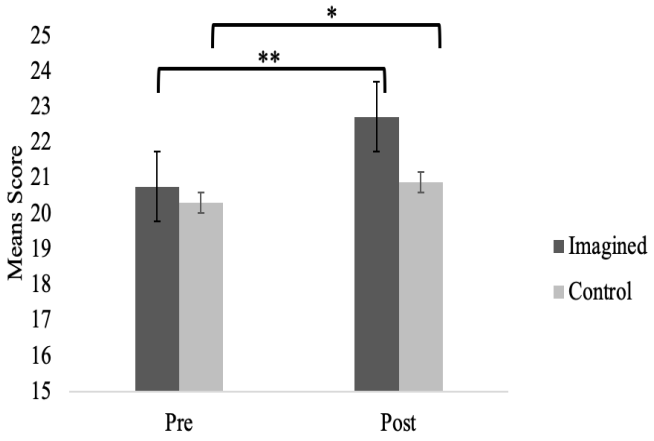

Figure 1.
Means of outgroup evaluation by group
† : <0.1 * : <0.05, ** : <0.01

Figure 1. Means of Outgroup Evaluation by Group

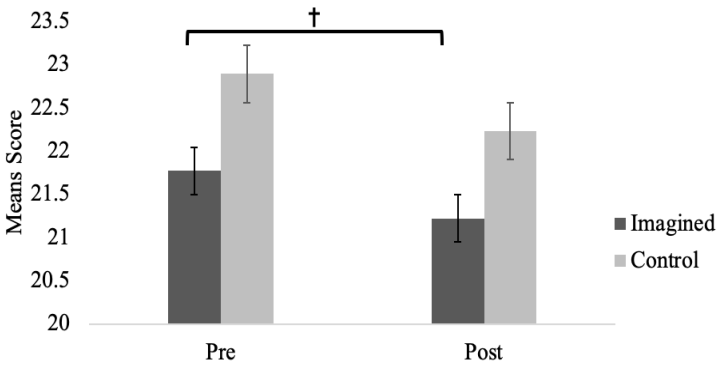

Figure 2.
Means of intergroup anxiety by group
† : <0.1 * : <0.05, ** : <0.01

Figure 2. Means of Intergroup Anxiety by Group

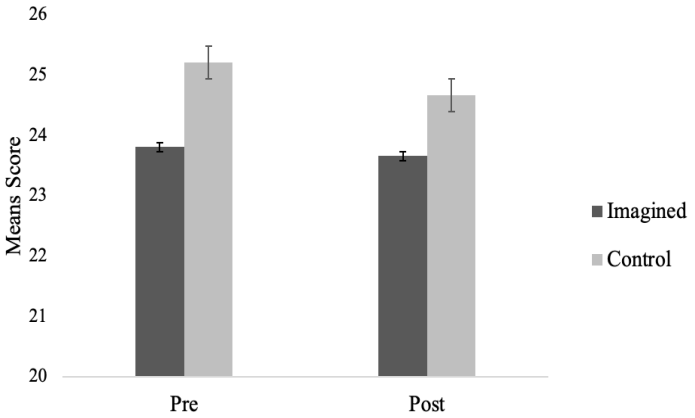

Figure 3.
Means of social distance by group
† : <0.1 * : <0.05, ** : <0.01

Figure 3. Means of Social Distance by Group

3.3. Discussion of Study 1

Study 1 examined the effect of imagined contact on Japanese participants regarding their attitude toward Chinese. Our results showed that outgroup evaluation significantly improved via imagined contact, not only for the imagined contact group, but for the control group as well. Perhaps this was because thinking about a positive interaction with anyone, be s/he Chinese or not, can lead to a carryover effect onto the second ratings of the Chinese. With this, Tropp and Pettigrew (2005) have noted that simply imagining a satisfying contact with someone accompanies positive feelings that can rub off onto the next task, and Crisp and Turner (2009) concluded that thinking of a pleasant interaction with a person regardless of nationality can lead to positive evaluation toward outgroup. However, the imagined contact group made a significantly larger stride than the control group. The imagined contact group also showed a tendency, albeit not significant, to experience a decrease in anxiety toward Chinese, while the control group showed no difference with time, in accordance to our expectations. Social distance, however, showed no differences with time for either group. While the results were not consistent across all variables, it does appear that imagined contact has potential as a tool for improving the attitudes of Japanese toward Chinese.

One issue of concern was that, this study collected data at universities with few Chinese students, and participants were likely to have little experience in interacting with Chinese. Husnu and Crisp (2010) point out that participants might not be able to have a vivid image of positive interaction if they have little prior bearing about what the target outgroup is like. Furthermore, younger Japanese have been regarded as having a generally more positive attitude toward foreigners compared to elders (Ohtsuki, 2007), hence our participants might have had a relatively positive attitude toward Chinese to begin with, leaving little room for improvement. Further research should be conducted on a wider age range of participants.

Overall, there was adequate indication that imagined contact can mitigate negative attitudes toward historically rival outgroups, this time in the case of Japanese respondents toward Chinese. However, sampling issues remain to be solved, and there is the doubt about whether, and if so, how long the effects last outside of the experiment.

4. Study 2

Study 2 was conducted to determine if imagined contact would have lasting effects on our Japanese participants toward Chinese. The question of the durability of the imagined contact effects had not been sufficiently covered by the literature, perhaps because results were not up to the expectations of researchers, and they had simply not reported on them. In any case, we aim to explore whether the effects of imagined contact will linger on in time, after the experiment, especially in the case of Japanese, who would likely not engage in actual interaction with the targeted outgroup once outside of the laboratory setting. We assume that participants naïve to the outgroup would be more responsive to manipulations, and that lack of opportunity for interaction after the experiment will allow the manipulation to last longer.

In this study, participants were subjected to pre-post administrations of the scales of Study 1, before and after reading and imagining a scenario, and one week, and one

month after. The scenarios were carried over from Study 1. We hypothesized that imagined contact would have a significant effect on intergroup attitude right after, one week after, and one month after reading and imagining about the imagined contact scenario.

> Hypothesis 1. Participants who imagined a positive intergroup contact would perceive less social distance, less intergroup anxiety, and more favorable outgroup evaluation toward Chinese as compared to the control group.

> Hypothesis 2. Participants who imagined a positive intergroup contact would perceive less social distance, less intergroup anxiety, and more favorable outgroup evaluation toward Chinese right after, one week after and one month after compared to the pre-experimental treatment.

4.1. Method

4.1.1. Participants

Participants were 134 Japanese (Male = 75, Female = 57, Other = 1, M_{age}= 42.43, *SD*= 9.80) sampled from a crowd sourcing website (*Lancers*), and responses were attained via web survey, based on the Qualtrics platform. A nominal monetary reward was given to respondents, in the amount of 50 yen each for the first and second responses (before/after), and 100 yen each for the third and fourth responses (1 week later/1 month later). The data, thus, was collected longitudinally over four times.

4.1.2. Procedure

Participants were randomly divided into two groups: imagined contact (N=65), and control (N=69). They were instructed to respond to participate in the experiment, in which they underwent the imagined contact (or control) treatment as in Study 1, but they were also asked to return to the study website to respond to the questionnaire, measuring the same variables as Study 1, one week after, and one month after. The data of participants who responded to the questionnaire all four times were analyzed. The same imagined contact and control scenarios were used as in Study 1.

The scales for social distance, intergroup anxiety and outgroup evaluation were carried over from Study 1, and the Cronbach alpha internal consistency reliability coefficients for each scale for this sample were: intergroup anxiety (α=0.78); social distance (α=0.90); and outgroup evaluation (α=0.93).

4.2. Results

A 2x4 mixed model MANOVA design was utilized, with experimental condition (imagined contact, control) as the between-participants variable, and time (before, right after treatment, one week after, and one month after) as the repeated-measure variable. The dependent variables included social distance, intergroup anxiety, and outgroup evaluation.

A repeated measures mixed model MANOVA was conducted including all independent variables, yielding a significant Bartlett's sphericity measure for both

between and within participants ($\chi^2(9)=419.78$, $p<.000$ and χ^2 $(9)=32.09$, $p<.000$ respectively), hence a MANOVA was deemed appropriate. The hypotheses were tested using the interaction effects between experimental condition and time. We also conducted one-way within subjects ANOVA to examine the main effect of time in each experimental group.

4.2.1. Effect on Social Distance

With social distance toward Chinese, the results indicated a significant interaction effect with group on time (F (1,132) = 5.90, p=.02, η^2=.04). The imagined contact group showed a significant decrease (p=.02) in social distance before (M=25.23, SD=6.43) and after (M=24.35, SD=6.32; Figure 4), and tendency effect (p=.08) one week after (M=24.97, SD=6.66), compared to pre-test. This effect did not dissipate (p=.01) one month after (M=24.28, SD=6.30) relative to the pre-test. The control group, in contrast, showed no significant differences across times (before M=25.14, SD=6.44 vs. after M=25.32, SD=6.75 vs. one week after M=25.23, SD=6.29 vs. one month after M=24.97, SD=6.66).These results supported Hypotheses 1 and 2 (Figure 4).

4.2.2. Effect on Intergroup Anxiety

Intergroup anxiety did not show a significant difference between groups over time (F (1,132) =1.06, p=.30, η^2=.01). However, the imagined contact group recorded a significant difference (p=.02) between pre- and post-test (before M=21.44, SD=3.99; after M=20.75, SD=4.44; see Figure 5), while there was no significant difference (p=.52) in the control group (before M=21.62, SD=3.22; right after M=21.46, SD=3.30). The main effect of time was not significant, between before and one week after (M=21.22, SD=3.74, p=.50) and one month after (M=20.86, SD=3.68, p=.13).There were no significant differences for the control group across time. Hypothesis 1 was partially supported, but Hypothesis 2 was not supported (Figure 5).

4.2.3. Effect on Outgroup Evaluation

Outgroup evaluation indicated a significant interaction effect on group over time (F(1,132) = 5.67, p=.02, η^2=.04). The imagined contact group significantly increased (p=.01) their outgroup evaluation between before (M=21.88, SD=5.09) and right after (M=22.62, SD=5.10; Figure 6), but it did not continue on one week after (M=22.06, SD=4.83, p=.51), nor one month (M=22.15, SD=5.51, p=.29). No significant differences were seen for the control group across times (before M=21.10, SD=4.88 vs. after M=21.13, SD=5.05 vs. one week after M=21.06, SD=4.79 vs. one month after M=20.90, SD=5.38). Hypothesis 1 was partially supported (before and right after), and Hypothesis 2 was not supported (Figure 6).

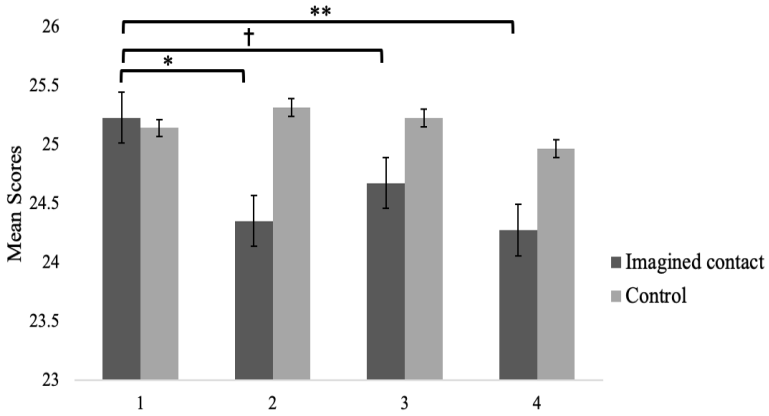

Figure 4.
Means for social distance by group.
1= Before, 2= right after, 3= one week after, and 4=one month after
† : <0.1 * : <0.05, ** : <0.01

Figure 4. Means for Social Distance by Group

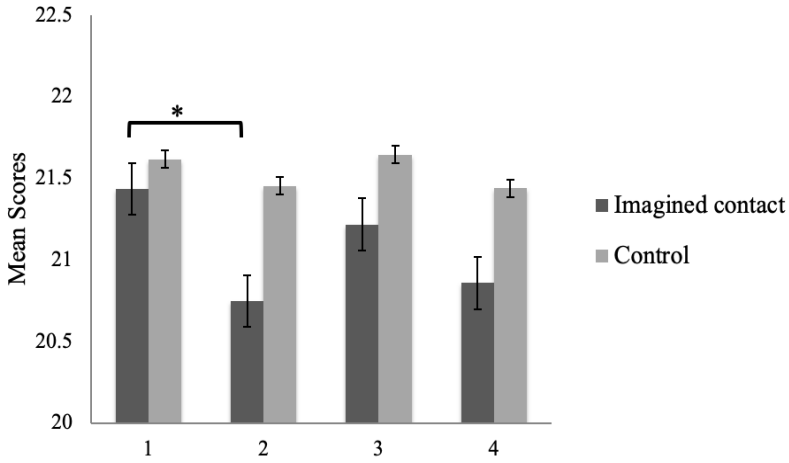

Figure 5.
Means for intergroup anxiety by group.
1= Before, 2= right after, 3= one week after, and 4=one month after
† : <0.1 * : <0.05、** : <0.01

Figure 5. Means for Intergroup Anxiety by Group

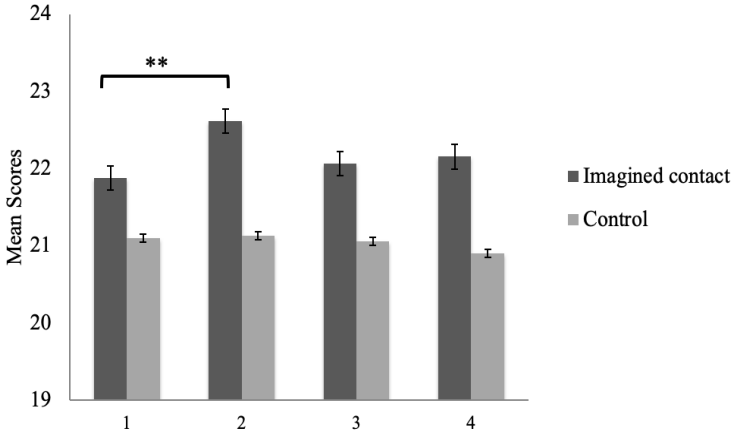

Figure 6.
Means for outgroup evaluation by group.
1= Before, 2= right after, 3= one week after, and 4=one month after
† : <0.1 * : <0.05, ** : <0.01

Figure 6. Means for Outgroup Evaluation by Group

4.3. Discussion of Study 2

Generally in line with our hypothesis, our results in Study 2 indicated support for imagined contact as an effective tool in mitigating some of the negative attitudes held by Japanese toward the Chinese outgroup, not only immediately after the imagined contact administration, but outside of the laboratory through one week, and even one month after depending on the measure. Imagined contact seems to have a more lasting impression in accepting the outgroup in certain social relationship types, than in keeping the anxiety levels of associating with them down, nor in fostering the maintenance of the better impression of them induced by imagining.

We saw our participants feel closer, more favorable, and more accepting of Chinese right after the imagined contact, but overall, this benefit was susceptible to dissipation. Perhaps anxiety toward, and one's image of the Chinese was susceptible to being subject to recency effects (Jones & Goethals, 1987). Once out of the laboratory, new information available to them from media and personal sources might resolve the positive effects gained by imagined contact. In particular, Japanese media is not shy toward agenda setting of news that can draw averse reactions toward China and the Chinese. Because Japanese do not have ample opportunity to interact face-to-face with actual Chinese persons in their daily routine, they could be more susceptible toward information fed to them from the media, or by word-of-mouth from their significant others.

Despite attesting to the success of the approach, this study admittedly had some flaws. First, online sampling may restrict the amount of control allotted toward the researcher with respect to the experimental environment, and we had no influence over how long they took, and how focused the participants were during imagining the given scenario. Imagined contact requires participants to concentrate on their task, since it requires "imagining" a given scenario. Second, this study only subjected participants to

a single episode, not multiple, to reinforce the notion that interactions with Chinese are good. Perhaps revamping the impression of Chinese would have been more effective had the participants been given repeated scenarios depicting the favorability of Chinese. In the future, multiple examples of favorable imagined contact might be given in a series, to reinforce the positive nature of the contact.

5. General Discussion

Study 1 demonstrated the feasibility of imagined contact in improving attitudes toward Chinese of Japanese participants. Those who imagined a positive intergroup interaction showed less intergroup anxiety, while having a more favorable attitude toward the outgroup. Study 2 determined that the effect of imagined contact was confirmed right after the treatment, and with some measures, the effect proved to last a month. Overall, our studies gave evidence for positive functioning of imagined contact in a relatively ethnically homogeneous society, such as Japan, as compared to multicultural societies, in which previous studies had been conducted.

Study 1 did not clearly show results in evidence of the improvement of Japanese attitudes toward Chinese as did Study 2. Study 1 surveyed university students, whereas Study sampled the general public. Ohtsuki (2007) found that youth tend to be more accepting of foreigners compared to adults and elders. It is conceivable that a negative attitude cannot be mitigated if people do not have such in the first place. Also, students may have lacked enough knowledge, and contact experience surrounding the Chinese, hence they were unable to image the intergroup interaction clearly. It is essential to have a realistic vision of the intergroup communication going on during ingroup and outgroup in the imagined contact (Husnu & Crisp, 2010). Although we based our scenario on a specific story, students may not have been able to relate well to such a story, which may have affected the durability of imagined contact as well.

While our study showed some promise for imagined contact lasting as much as a whole month, had there been an influential event concerning Japanese and Chinese, this could have had an impact on the duration of the effects. In other words, the effect of imagined contact may be susceptible to news coverage, online arguments, and other information which may have an influence on their current image of Chinese. Luckily, such an event was not recorded during the time of this experiment, so we believe there were no confounding events at work in influencing results.

Future research should include the administration of multiple episodes of imagined contact, perhaps applied in a series. Stathi et al. (2014) have conducted research on children, asking them to be subjected to imagined contact treatment once a week for three weeks. Through this, imagined contact was seen to be less likely to be forgotten, even for participants who do not have much actual chance to have positive interaction with the outgroup. While this study measured intergroup attitude of participants who did not have any plan to have direct contact with an outgroup member in their near future (such as engaging in study abroad), imagined contact scenarios would be more pragmatic for those who are actually willing to have intergroup interaction in their near future.

A laboratory administration of imagined contact may not be sufficient for exerting a lasting impact on the image held by participants of the Chinese, so they may reap greater benefits if they continue gaining contact through other forms, such as electronic contact, in which they have the opportunity to engage in chat exchange with the said

cultural group. As a matter of fact, White et al. (2014) noted that having electronic contact with outgroup members including dual identity recategorization reduced intergroup bias even twelve months after their training.

In conclusion, the imagined contact approach seems to have some utility for mitigating prejudiced attitudes held by Japanese toward Chinese people. However, its benefits were only partially effective beyond one week and thereafter. Further research is required on how to foster the attitude change over a longer time span. It is important to determine how to stabilize the effect of imagined contact in a relatively homogeneous country like Japan. We plan to look at repetitive contact scenarios, perhaps making them vicarious, rather than verbal. In any event, imagined contact is worthy of closer examination, especially in the Japanese context, where there is a conspicuous void in research.

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Appendix

Questionnaire from Study 1 and Study 2

Demographics

1. Gender
2. Nationality
3. Are you older than 20?
4. Age
5. Academic Background
6. Occupation

Social Distance:

7. Question below is asking about your distance between you and Chinese.

	Degree of agreement (1=Strongly agree, 7=Strongly disagree)						
To close kinship by marriage	1	2	3	4	5	6	7
To my club as personal chums	1	2	3	4	5	6	7
To my street as neighbors	1	2	3	4	5	6	7
Employment in my occupation	1	2	3	4	5	6	7
Citizenship in my country	1	2	3	4	5	6	7

Intergroup Anxiety:

8. If you were to meet a Chinese person in the future, how do you think you would feel?

	Not at all						Very
Awkward	1	2	3	4	5	6	7
Happy	1	2	3	4	5	6	7
Self-conscious	1	2	3	4	5	6	7
Competent	1	2	3	4	5	6	7
Relaxed	1	2	3	4	5	6	7

Outgroup Evaluation:

9. Please describe how you feel about Chinese in general.

Cold						*Warm*
1	2	3	4	5	6	7
Positive						*Negative* (reversed)
1	2	3	4	5	6	7
Friendly						*Hostile*(reversed)
1	2	3	4	5	6	7
Suspicious						*Trusting*
1	2	3	4	5	6	7
Respectful						*Contempt* (reversed)
1	2	3	4	5	6	7
Admiration						*Disgust* (reversed)
1	2	3	4	5	6	7