



ORIGINAL ARTICLE

# Imagined Intergroup Contact Reduces Prejudice Against Suicide Loss Survivors; An Empirical Study with Japanese Undergraduates

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## ABSTRACT

**Background:** This study examined whether imagined intergroup contact reduced prejudice against suicide loss survivors in Japanese undergraduates.

**Methods:** Participants were randomly divided into the following two groups: imagined contact and control. The imagined contact group included 53 participants, and the control group included 48 participants. Participants assigned to the imagined contact group were asked to imagine meeting and comfortably talking with a suicide loss survivor for two minutes. Participants assigned to the control group were asked to think about suicide loss survivors for two minutes. Then, all participants responded to 5 questions assessing social distance and 11 questions about their impressions of suicide loss survivors. The five items for social distance were measured on a 6-point scale. The eleven items for their impressions of suicide loss survivors were measured on 7-point semantic differential rating.

**Results:** For social distance, participants assigned to the imagined contact group considered survivors were significantly less psychologically disturbed and less to blame for the death. Then, an exploratory factor analysis of the 11 items of the scale for impressions of suicide loss survivors was conducted, and the following two factors were derived: “Anticipated Survivor Affect” and “Negative Affect.” Results indicated that participants assigned to the imagined contact group considered survivors had significantly less “Negative Affect” toward survivors.

**Conclusion:** It was showed that imagined contact with a suicide loss survivor had a certain influence on reducing prejudice against suicide loss survivors.

< Key-words >

Suicide loss survivors, suicide, prejudice, imagined intergroup contact hypothesis, grief

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## I. Introduction

Individuals who have lost someone close to them due to death by suicide may feel guilty or blame themselves, which complicates the process of grieving from the loss<sup>1)</sup>. Others may have blamed them or viewed them negatively for complicity with the suicide; this is a common social prejudice<sup>2)</sup>. Thus, suicide loss survivors might have difficulty gaining understanding and support because of prejudice directed at them<sup>3)</sup>. This would complicate their grief process<sup>4)</sup>. Therefore, it is desirable to learn whether there are ways to reduce this prejudice.

Brown defined prejudice as “any attitude, emotion or behavior towards members of a group, which directly or indirectly implies some negativity or antipathy towards that group”<sup>5)</sup>. Similarly, Ikegami said that prejudice was made up of negative attitudes, beliefs, affect, and behavioral intentions about a group. Based on these definitions, we define the prejudice against suicide loss survivors as involving any attitudes, beliefs, affect, behavior, and behavioral intentions which directly or indirectly imply some negativity or antipathy toward suicide loss survivors<sup>6)</sup>.

What prejudices about suicide loss survivors are prevalent? Calhoun, Selby and Faulstich presented four fictional obituary notices describing the death of either a 10-year-old boy or girl from suicide by hanging or from viral illness<sup>7)</sup>. Participants read the newspaper accounts and responded using twelve rating scales about the surviving parents. The results showed that participants tended to consider the suicide-loss surviving parents as being less likeable and more to blame for the child’s death. Moreover, similar studies found that participants tended to consider the suicide-loss surviving parents as being more psychologically disturbed, sadder and depressed longer, more ashamed, and being in increased need of specialist support<sup>8)</sup>. Similar results were found regarding other suicide-loss surviving relatives, such as spouses<sup>9)</sup>. Doka said that the public might have a taboo involving not only the person dying by suicide, but also the survivors<sup>10)</sup>. Suicide has been taboo through the ages, and even in modern times the taboo persists<sup>11)</sup>.

As psychological support for suicide loss survivors, many researchers suggest intervention strategies such as grief counseling and group work<sup>12-15)</sup>. A few researchers also suggest an educational program aimed at reducing public prejudice against suicide loss survivors. In this study, we focus on empirical research which can contribute to the development of an effective education program.

The contact hypothesis of Allport is one of the dominant theories to explain the process and factors for reducing prejudice toward a particular group<sup>16)</sup>. This hypothesis proposes that contact between members of opposing groups, under conditions of common goals and equal status, can reduce negative intergroup attitudes<sup>17)</sup>. Although much empirical research supports this hypothesis, direct contact with an outgroup has a risk of causing members to experience more intergroup anxiety or tension<sup>6)</sup>. Therefore, setting up actual opportunities for direct contact with an outgroup might be difficult.

The imagined intergroup contact hypothesis has been suggested as an alternative to riskier direct contact<sup>17)</sup>. This hypothesis proposes that imagining positive social interactions with a member or members of an outgroup at certain times leads to more positive intergroup attitudes. Thus, even if there is no opportunity for direct contact with members of the outgroup, imagining positive interactions can reduce prejudicial attitudes toward the outgroup. The imagined intergroup contact technique has substantial advantages over direct or extended contact techniques. The imagined intergroup contact technique is more practical, more inexpensive, and does not casually stir up participants' anxiety associated with direct contact<sup>18)</sup>. Based on this imagined intergroup contact hypothesis, Turner, Crisp and Lambert conducted a set of experiments regarding several types of outgroups<sup>19)</sup>. For example, in an experiment regarding attitudes toward homosexual males, heterosexual male participants assigned to the imagined intergroup contact group were asked to imagine for five minutes that they were talking to a gay man who sat next to them on the train. They spent about thirty minutes talking until they left the train, and learned some interesting and unexpected things about the gay man during the conversation. Participants assigned to the control group were asked to spend the same five minutes imagining a three-day hiking trip. The results showed that the imagined intergroup contact participants developed more positive attitudes toward homosexual males than the control participants. One of the models to explain the imagined intergroup contact effect is the mental simulation model<sup>17)</sup>. According to this model, practicing mental simulation, i.e., imagining positive interactions with members of an outgroup, can activate some concepts consistent with the image and then produce thoughts and feelings related to good interactions with members of that outgroup<sup>18)</sup>. There is little imagined intergroup contact research that focuses on suicide loss survivors as one of the outgroups. It is important that we examine the imagined intergroup contact effect for prejudice against suicide loss survivors, because it is likely that the content of prejudices differ according to the targeted outgroup. This study examines whether imagining positive interactions with a suicide loss survivor reduces the prejudice against suicide loss survivors, based on the imagined intergroup contact hypothesis.

## II. Methods

### 1. Participants

The participants were students enrolled in an Introductory Psychology course at a private university in Sapporo, Japan. The sample for the two groups included 103 Japanese undergraduates (60 men and 43 women). Participants were randomly divided into the following two groups: imagined contact and control. The imagined contact group included 55 participants (33 men and 22 women) ranging in age from 18 to 24 years ( $M=19.00$ ,  $SD=1.13$ ). The control group included 48 participants (27 men and 21 women)

ranging in age from 18 to 21 years ( $M=18.80$ ,  $SD=0.74$ ). Data from 2 participants were excluded from analysis because of incomplete answers on the questionnaire. Consequently, the imagined contact group included 53 participants (31 men and 22 women).

We informed participants that participation in this study was not related to their course and was voluntary. We asked them to participate without compensation.

## 2. Materials and Procedure

Prior to the start of the experiment, we randomly handed out two types of booklets, corresponding to the imagined contact and control groups, which described the instructions and included a questionnaire about the impressions of the participants. The instructions were modified from Turner, Crisp and Lambert Experiment 3 for an imagined contact group for the manipulation of mental imagery<sup>19</sup>. Earlier studies have employed some ingenious control groups, such as imagining contact with a non-outgroup member, imagining a neutral scene, thinking about the outgroup, and so on. Miles and Crisp conducted a meta-analytic test of studies of the imagined contact hypothesis and demonstrated that the type of control group had no significant impact<sup>20</sup>. So, in this study, we employed the simple 'think about the outgroup' method for the control group.

Participants assigned to the imagined contact group were asked to read to themselves the following scenario in the booklet: "One day, you took a train and got a seat. A person who incidentally sat down next to you addresses you. In the first half of the conversation, you heard a story that the person lost a family member from suicide. You kept talking with the person until you got off the train, about 30 minutes later. The conversation with the person was very delightful and fulfilling for you, and you feel very good." After reading that scenario, they were asked to imagine that situation as concretely as possible for two minutes. After the imagining task, they were asked to describe their imagined content and to complete measurement scales about their attitudes and impressions of suicide loss survivors.

Participants assigned to the control group were asked to read to themselves the following sentence in the booklet: "What characteristics do you imagine that suicide loss survivors in general have?" Then, they were asked to think about the things which come to mind for two minutes. After the imagining task, as was done with the imagined control group, they were asked to describe their imagined content and to complete the measurement scales about their attitudes and impressions of suicide loss survivors. Miles and Crisp pointed out that the effectiveness of imagined contact was equivalent whether the time spent imagining was longer than two minutes or not<sup>20</sup>. So, we decided to use the two-minute time to reduce the burden on the participants.

### 1) Scale for social distance with suicide loss survivors

All participants completed the following self-report scale about general attitudes toward suicide loss survivors. We used the 5 items Yamanaka<sup>21)</sup> had chosen from the 7 items used by Reynolds and Cimboic<sup>22)</sup>. The five items for social distance, measured on a 6-point scale (from 1 = “not at all” to 6 = “very much”), were as follows: “How psychologically disturbed are suicide loss survivors?”, “How much do you like suicide loss survivors?”, “How much blame do you attribute to suicide loss survivors?”, “How tense would you be during a visit with a suicide loss survivor?”, and “How much do you empathize with suicide loss survivors?”

### 2) Scale for impressions of suicide loss survivors

To further consider the affective component of attitudes toward suicide loss survivors, we employed the following 7-point semantic differential rating items. We used 11 items from Yamanaka<sup>21)</sup> for measuring the image of suicide loss survivors: “*powerful- weak*”, “*bright- dark*”, “*familiar - strange*”, “*unfeared - feared*”, “*pleasing - annoying*”, “*pleasant - unpleasant*”, “*shallow - deep*”, “*relaxed - tense*”, “*good - bad*”, “*happy - sad*”, and “*cheerful - sorrowful*”. Seven of these items (“*powerful - weak*”, “*familiar - strange*”, “*pleasing - annoying*”, “*pleasant - unpleasant*”, “*deep - shallow*”, “*relaxed - tense*”, and “*good - bad*”) were contained in the sub-scale of the Aftermath of Suicide Scale developed by Calhoun, Selby, Tedeschi and Davis<sup>23)</sup>.

## III. Results

### 1. Data Analysis

Statistical analyses were computed using IBM SPSS Statistics software (Version 21.0). For statistical analyses, we employed  $p$ -values  $<.05$  as statistically significant.

### 2. Group Differences on the Five Social Distance Items

Table 1 shows descriptive information for each social distance item for each of the two groups. For each item, we compared the between-group score using  $t$ -tests. We adjusted the degrees of freedom in cases where unequal variances were detected by Leven’s test.

For the item “How psychologically disturbed is the suicide loss survivor?”, we found that the mean score of the imagined contact group was significantly lower than that of the control group ( $t(95.62) = -2.70, p < 0.1, d = .53$ ). For the item “How much blame do you attribute to suicide loss survivors?”, we found that the mean score of the imagined contact group was significantly lower than that of the control group ( $t(97) = -2.14, p < 0.5, d = .53$ ). For other 3 items, we did not find significant differences between the mean score of the imagined contact group and that of the control group.

### 3. Exploratory Factor Analysis of the Scale for Impressions of Suicide Survivors

We conducted a factor analysis of the 11 items of the scale for impressions of suicide loss survivors. The factor analysis was performed using the maximum likelihood method with Oblimin rotation. The number of factors was determined by the standard that the eigenvalue was more than 1. One factor included only one item “*powerful-weak*”, so this item was excluded from subsequent factor analysis. Subsequent factor analysis was also performed using the maximum likelihood method with Oblimin rotation.

<Table 1> Means (*SD*) of the five attitude items for each condition

Items	Imagined contact	Control	<i>t</i> (97)	<i>p</i>
Psychological Disturbance	4.30 (1.59)	5.07 (1.22)	-2.70	.008
Like	3.47 (0.82)	3.20 (0.72)	1.77	.08
Responsibility	3.72 (1.15)	4.17 (0.95)	-2.14	.03
Tense	3.94 (1.38)	3.85 (1.41)	0.34	.74
Empathy	3.17 (1.24)	2.91 (1.30)	1.01	.32

As shown in Table 2, 10 items were finally retained, and two factors were derived. Factor 1 included three items, such as “*happy - sad*”, “*cheerful - sorrowful*”, and “*deep - shallow*.” This factor was named “Anticipated Survivor Affect.” Factor 2 included seven items, such as “*agreeable - annoying*”, “*pleasant - unpleasant*”, “*familiar - strange*”, “*good - bad*”, “*unfeared - feared*”, “*bright - dark*”, and “*relaxed - tense*.” This factor was named “Negative Affect.”

<Table 2> Factor loadings in the exploratory factor analysis of 11 impression items

	Item	Factor loading
Factor 1: Anticipated survivor emotions		
11	Cheerful-sorrowful	.91
10	Happy-sad	.88
7	Deep-shallow	.36
Factor 2: Negative affect		
5	Agreeable-annoying	.85
6	Pleasant-unpleasant	.82
3	Familiar-strange	.70
9	Good-bad	.70
4	Unfeared-feared	.55
2	Bright-dark	.41
8	Relaxed-tense	.37
Factor correlations		1                      2
Factor 1		.45
Factor 2		.45

Internal consistency and reliability were good, with a Cronbach's alpha coefficient of .72 for the "Anticipated Survivor Emotions" subscale, and .85 for the "Negative Affect" subscale.

### 3. Group Differences on the Scale for Impressions of Suicide Loss Survivors

Table 3 shows descriptive information for each impression factor subscale for each of the two groups. For each factor subscale, we compared the between-group scores using *t* tests. We similarly adjusted the degrees of freedom in cases where unequal variances were detected by Leven's test.

<Table 3> Means (*SD*) of sub-scales scores of impressions

Factors	Imagined contact	Control	<i>t</i> (97)	<i>p</i>
Anticipated survivor emotions	5.04 (0.91)	5.29 (0.91)	-1.37	.17
Negative affect	3.81 (0.99)	4.28 (0.82)	-2.53	.01

For the factor subscale "Negative Affect", we found that the mean score of the imagined contact group was significantly lower than that of the control group ( $t(97) = -2.53, p < 0.1, d = .51$ ). However, for the factor subscale "Anticipated Survivor Emotions", we did not find a significant difference between the mean score of the imagined contact group and that of the control group.

## IV. Discussion

Focusing on the imagined intergroup contact hypothesis, this study examined whether imagining a social interaction with a suicide loss survivor contributed to reducing the prejudice against them. The results suggested that participants assigned to imagine an experience of contact with a suicide loss survivor viewed suicide loss survivors as less psychologically disturbed, less to blame for the suicide, and showed less negative affect than did the participants assigned to the control group.

Viewing suicide loss survivors as psychologically disturbed can lead to considering them as people with needs for support. Accordingly, the public could try to offer wide-ranging assistance to suicide loss survivors. Considering this framework, it might not be necessary to consider such attitudes as prejudice. However, Rudestam pointed out that viewing people as being more psychologically disturbed was not a seemingly negative attitude, but this attitude could lead to avoiding close contact with survivors<sup>4</sup>. Thus, it might be

possible that suicide loss survivors see this public attitude as negative, such as “feeling themselves left out.” The present result that imagined intergroup contact led to rating the seriousness of psychological disturbance as lower is meaningful in terms of preventing the isolation of survivors.

Suicide loss survivors could tend to feel guilty and blame themselves, which complicates grieving the loss<sup>1)</sup>. Hanschmidt, Lehnig, Riedel-Heller, and Kersting suggested that suicide loss survivors’ internalization of negative public attitudes, including public blaming survivors for the suicide, could exacerbate their feelings of shame, self-blame and guilt<sup>24)</sup>. Therefore, reducing public blaming for suicide could assuage unnecessary self-blame and guilt that survivors might feel and result in survivors experiencing a normal grief processes. This study indicated that imagined intergroup contact leads to less blaming of suicide loss survivors for the suicide. Therefore, the imagined intergroup contact technique could contribute to increasing suicide loss survivors’ support for suicide survivors.

Moreover, the present study also showed that imagined intergroup contact lowered negative affect toward suicide loss survivors. It was already pointed out that imagined intergroup contact also has effects on emotional content<sup>20)</sup>. Lowering negative affect could soften the resistance to interaction with survivors, which then might lead to actively supporting survivors.

Therefore, the imagined intergroup contact can have an effect as one method for reducing prejudice against suicide loss survivors.

This study was conducted using a procedure similar to Turner, Crisp, and Lambert<sup>19)</sup>, similar to most previous studies that have targeted the direct victims of stigma, including outgroups, people with mental illnesses, specific ethnic groups, and older adults, among others. However, the outgroup in this study were family members rather than the person that committed suicide, which would be the direct target of stigmatization. It is clear that the imagined contact method has a specific effect on reducing prejudice against family members of the direct target of stigma; the suicide victim. However, changes in ‘Like’, ‘Tense’, and ‘Empathy,’ scores among others used in this study were unclear. It has been suggested that factors in forming prejudices directed at family members are more complex than those directed against the directly responsible people<sup>20)</sup>. Such differences in the formation of prejudices could have influenced the study’s results.

Furthermore, most previous studies on the imagined contact hypothesis have been conducted with university students in Europe and the United States, whereas Asian cultures such as Japan have been less often investigated. The differences in participants’ culture might have influenced the results of this study.

There are some limitations to this preliminary study, which should be overcome in future research. For example, this study only assessed attitudes only immediately after manipulating the imagination and did not examine how long the positive effect of imagining would continue. Miles and Crisp also pointed out the absence of an empirical

examination of the duration of the imagined intergroup contact effect<sup>20</sup>). Future research should examine the extent of this duration, to develop and conduct more effective educational programs.

Although we examined social distance and impressions of suicide loss survivors, and found positive change in these, we did not examine whether imagined intergroup contact could positively change actual behavior toward suicide loss survivors. Miles and Crisp in a meta-analytical study, reported that imagined intergroup contact could produce a positive change in not only affect, attitudes, and intentions but also in actual behavior towards the outgroup<sup>20</sup>). Future research should replicate imagined intergroup contact effects using actual behavior toward suicide loss survivors.

This study demonstrated an imagined intergroup contact effect on specific attitudes, but there was no positive effect on other attitudes such as liking suicide loss survivors, tension when visiting survivors, and empathy for survivors. Therefore, we should recognize that the imagined intergroup contact procedure, when used as an educational program, does not change all attitudes positively. Therefore, further research is needed to examine the content of images and the method of imagining and identify more effective procedures.

Attitudes toward suicide loss survivors might be related to people's experiences of suicidal behaviors, including a history of suicidal behaviors among significant others and suicidal behaviors of the self. However, we did not examine such individual differences in this study. The association between attitudes toward suicide loss survivors and personal experiences should be examined in the future.

Finally, the participants in this study were only Japanese undergraduates, so the generalizability of these findings may be limited. Suicide loss survivors have contact not only with undergraduates but also with people of diverse ages, statuses, races, or communities. Future research should investigate imagined intergroup contact effects in diverse populations. Such research could lead to more effective educational programs for reducing prejudices against suicide loss survivors, and increasing the inclusiveness of suicide prevention programs.

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The author(s) declared that there is no conflict of interest.

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