A Sense of Field Reality That Makes a Group Situation Real

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The present study demonstrated that a subjective sense of the reality of a situation is necessary for a group situation to be a "real" one. In two studies, two conditions scoring high and low in the subjective sense of the reality of the situation were compared in terms of theoretically important criteria for a "real" (group) situation: participants' group identification and "seriousness" about the situation. The sense of the reality of the situation was measured, using a newly developed scale called the *Sense of Field Reality* (SFR) scale.

Study 1 used a SIMINSOC game in which participants scoring high on the scale exhibited significantly more identification with the group than those with low scores, in two self-reported measures. The same pattern was also observed for another measure, though this was statistically marginal. In Study 2, respondents from a university lecture scoring low on the scale exhibited marginally less seriousness about the situation than those with high scores. Both studies imply the theoretical importance of a subjective sense of the reality of a situation for studying intergroup relations.

Key words: real group situation, subjective sense of reality, intergroup relation

INTRODUCTION

A new concept for evaluating an experimental situation is put forward for the experimental study of intergroup relations: a sense of field reality. The methodological importance of experimental reality has long been appreciated for any experimental study in psychology, but its theoretical importance has not been fully recognized, especially for the study of intergroup relations. In this article, two studies on a new concept called "a sense of field reality" examine the role of this relatively neglected aspect for the study of intergroup relations: the subjective sense of the reality of the situation. In doing so, the present study tries to demonstrate that a subjective sense of the reality of a situation is a necessary condition for a group situation to be considered as a "real" one, methodologically and theoretically.

This sense of field reality, abbreviated as SFR, is a new concept about people's subjective sense of the situation "in general" which they understand they are in (Kakimoto, 2004). It refers to a subjective sense of the reality of the situation experienced by a person who is there. SFR concerns whether persons in a situation "feel" that the situation is real or not, and does not directly concern the "content" of the situation itself as addressed by Shutz's (1962) concept of multiple realities. For example, a lecture in a university room may or may not feel "more real" to some attendants than to others for some reason or other. If it feels like a dream to somebody there, it means that the SFR of the lecture session is low for this person. Significantly, SFR concerns the "situation" which a person believes he/she is in, and does not directly concern a particular "object" or "phenomenon" as addressed by Ikeda's (1993) concept of reality. What is important here is whether or not the situation feels real, whatever the content of the situation may be. Therefore, the situation in question is not limited to a particular type or range as long

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as there is someone else other than the person him/herself present.

A psychological scale has been developed to capture this concept based on a series of theoretical and empirical studies (e.g. Kakimoto, 2006; Kakimoto & Hosono, 2008, 2010). In short, the scale consists of three components: *proactive interest in the situation* (measured by four scale items, such as "The situation that I am in now attracts much of my attention"), the *once-ness of the situation* (measured by four items, such as "The situation I am in now feels to me like the only one ever"), and the *reality of the participants* (measured by four items, such as "I certainly feel myself to be here now"). There are twelve items in total (see Kakimoto & Hosono, 2008, for individual Japanese items, and Table 3 in the Appendix for the translated items), and each response scale ranges from 1 "not at all" to 7 "very much."

In the context of experimental methodology, the idea of a sense of reality may look similar to the familiar idea of "experimental reality." It is indeed similar, but it is not the same. In fact, SFR concerns a situation in general and is not limited to an experimental session in psychology. Moreover, it is conceptualized as a property of a *person's sense* of a situation rather than a property of the situation itself. In addition, SFR has theoretical importance in the study of intergroup relations because, in most cases, an intergroup or group situation is defined in terms of the group members' subjective sense of being a member of a particular group (see Sherif, 1966, for example). This should mean that even in an experiment, the situation needs to be experienced as a "real" group situation by the participants themselves. This is also in line with Wegner & Gilbert's (2000) contention on what social psychology should study: human experiences.

In order to demonstrate this point, two studies were conducted to demonstrate that SFR plays an important role in producing "real" intergroup phenomena. In Study 1, participants' group identification was measured as an important criterion for a group situation to be considered "real." Group members' identification with the group has been recognized as an important theoretical vari-
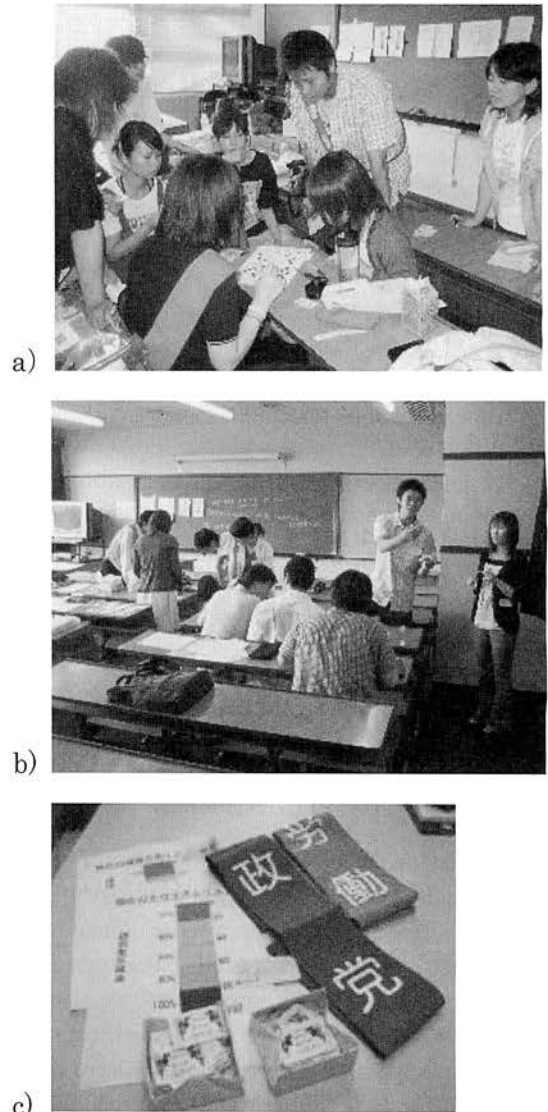

a)

b)

c)

Fig. 1.   Scenes from a Simulated International Society (SIMINSOC) game
a) Participants discussing on an environmental issue.
b) One of the four regions.
c) Some of the items used in a SIMINSOC game: indicators for terrorism and environmental risks, sashes for the leaders of a political party and a labor union, and samples of currency in the game.

able to explain people's group behavior generally (e.g., Hinkle & Brown, 1990), though some criticize its theoretical link (e.g., Turner, 1999). Thus, it could be used at least as an indicator for the role

of SFR in producing a "real" group situation. It was expected that those with high scores on the SFR scale would identify with their group more. In Study 2, "seriousness" about the situation was measured, because participants' seriousness about the situation is naturally deemed a prerequisite for any experimental manipulation to be successful. Therefore, this measure was used as an indicator to indicate that the participants' SFR would be a basic condition to be fulfilled for social psychological experiments generally, including those in group and intergroup research. It was expected that those with high scores on the SFR scale would be more serious about the situation than those with low scores.

Here, the earlier proposition that higher SFR should lead to more group identification may require some theoretical clarification. The concept of group identification is thought to be based on at least the following two aspects: (1) a group member's acceptance of him/herself as actually belonging to the group, and (2) a group member's resolution to identify him/herself with the group. The former acceptance should be facilitated if he or she engages in the actual group activities while the latter resolution will be induced more if he or she is motivated to participate in the situation. Meanwhile, a greater SFR is thought to enhance both a person's engagement in the actual group activities and his/her motivation to participate in the situation. In other words, SFR is expected to heighten the levels of both variables that stimulate group identification. Therefore, a higher SFR is hypothesized to lead to more group identification in a group situation.

STUDY 1[1]

Method

In Study 1, data were collected from students who participated in a simulated society game named SIMINSOC (Simulated International Society). This game was developed by Hirose and his colleagues (Hirose, 1997) and is based on a number of rules about gaining food, employment, po-

litical parties, travels, etc. The players have to survive for at least seven game years while pursuing their own goals such as wealth, power, and popularity. There were four "areas" for the players to belong to in the society: two among the rich and resourceful, and other two among the poor and deprived.

The selection of this game as a target situation would be valid for a study that tackles the problem of subjective sense of the reality of a group situation because the game is known for provoking group-level reality (e.g., Kakimoto, Hori, & Kurosu, 2003).

Some pictures taken during the game are presented in Figure 1 in order to illustrate the physical settings and the way participants interacted.

Participants　The participants in the present study were 47 university students enrolled in a research method course at Gunma University.

Measurements　The following two measures were used in Study 1.

Sense of Field Reality (SFR) scale　As stated above, there are twelve items in the sense of field reality (*SFR*) scale to capture participants' subjective sense of the situation of the game. However, eleven items of the scale were used to calculate the scale score in this study, with one item from the "*once-ness of the situation*" component excluded due to its irregular loading in the factor analyses (see Kakimoto, 2005, for details). Each response scale ranged from 1 "not at all" to 7 "very much." The scale score was the mean response to the items after reversing the numerical item responses where needed. Thus, a higher score indicates a higher sense of reality.

Group identification　The following three items were used to measure a participant's identification with their group (i.e., with their "area" in the game): 1. "I strongly feel that I belong in this area." 2. "I feel attached to my area." 3. "I feel myself one with the people in this area." The response scale ranged from 1 "not at all" to 5 "very much." A higher score indicates higher identification.

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[1]　A brief earlier version of this study appeared as part of a chapter whose aim was to illustrate the social aspects of the self (Kakimoto, 2008).

Table 1. Mean group identification by the *Sense of Field Reality* (*SFR*)
Forty-seven university students participated in the game (seven were excluded from the analyses).

Group identification items	Sense of Field Reality (SFR) scale		F-Value
	High scorers (N=10)	Low scorers (N=10)	
"I strongly feel I belong in this area"[#]	4.6	3.6	6.08[*]
"I feel attached to my area"[#]	4.6	3.8	3.60[†]
"I feel myself to be one with the people in this area"[#]	4.4	3.1	13.46[**]

[#] 5-point scales, [**]$p<.01$, [*]$p<.05$, [†]$p<.10$

Procedure The game was conducted on one Saturday in July 2005, as a part of the course. The rules book was given to the participants for them to study, two weeks before the game. On the day of the game, they moved to the game revenue after a brief explanation of the rules, were assigned to one of the four "areas," and then started the game. The three items used to measure participants' group identification and the SFR scale items were administered in an "opinion poll" towards the end of the game. In this case, identification with one's "area" was counted as identification with one's "group."

Conditions The three group identification measure scores were compared between those with high scores and those with low scores on the SFR scale. The high (low) scorers were in the top (bottom) 25% of SFR scale scores.

Results

The participants scoring high on the scale indicated significantly more identification with the group ("area" in the game), than those with low scores, in two of three self-reported measures: $F(1, 9)=6.08$, $p<0.05$; $F(1, 9)=13.46$, $p<0.01$. The same pattern was observed in the remaining measure, though it was statistically marginal: $F(1, 9)=3.60$, $p<0.10$. The degree of group identification of the high scorers was quite high (means were 4.4 to 4.6 on the five-point scale) whereas that of the low scorers was moderate (3.1 to 3.8). The detailed results are listed in Table 1.

Discussion

In short, as was expected, those scoring high on the SFR scale exhibited more identification with the group than those with low scores. It was also found that, for those high on the scale, the identification scores were all quite high, meaning that the participants strongly identified with the group. This is in line with the frequent observation that a SIMINSOC game tends to provoke group-level reality (Kakimoto, Hori, & Kurosu, 2003). However, participants identified with the group only to a moderate degree when SFR was low. Because group identification is considered a key concept in explaining group phenomena (e.g., Hinkle & Brown, 1990), the results here would suggest that this important concept is controlled by SFR, demonstrating that SFR is necessary for a group situation to be seen as "real."

STUDY 2

In Study 2, another criterion for judgment of a "real" group situation was whether or not participants were taking the situation seriously. As discussed above, participants' being serious about the situation should be a natural criterion for any experimental manipulation to be successful, including that of a group situation. The degree of seriousness was compared between those with high and low scores on the SFR scale. It was expected that those with high scores on the SFR scale would be more serious about the situation than those with low scores.

Method

A revised version of the SFR scale items and a question item involving "*seriousness about the situation*" were administered to the students in taking a lecture course called "Human Relations" in 2009 at Gunma University. A university lecture

Table 2.　Means (standard deviations) of "seriousness"
Sixty-seven university students participated in the survey (one was excluded from the analyses).

"Seriousness" item	Sense of Field Reality (SFR) scale		t-Value
	High scorers ($N=35$)	Low scorers ($N=31$)	
"I am attending to this lecture quite seriously" [#]	4.09 (1.44)	3.42 (1.40)	1.89 [†]

[#] 7-point scale,　[†]$p<.10$

was selected as a the target situation because it could be roughly regarded as a group situation where people share a common goal of studying the subject, but not as much so as the SIMINSOC game used in Study 1, thus allowing a test of the effect of SFR in another type of situation.

Measurements　The following two measures were used in Study 2.

Sense of Field Reality (SFR) scale: Revised version
As stated above, a revised version of the 12-item scale was used to capture the concept. The revision involved a minor rephrasing of an item from the subscale "once-ness of the situation" (see Kakimoto, 2010, for individual items). The original three-component structure remained in the revised version. The scale score was the mean response to the items, after reversing the appropriate item responses. A higher score indicates a higher sense of reality.

Seriousness about the situation　The following item was used to measure a participant's seriousness about the situation: "I am attending to this lecture quite seriously." The response scale ranged from 1 "not at all" to 7 "very much." A higher score indicates more seriousness about the situation.

Procedure　Data were collected during a lecture course called "Human Relations" in July 2009. A questionnaire containing the above two measurements was administered towards the end of the lecture session.

Respondents　The respondents were 67 university students who attended the lecture session described above. They were encouraged to answer the question sheet voluntarily. Respondents were divided into the high ($N=35$) and the low ($N=31$) scorers

based on a mean-split in the SFR scale score.[2]

Results
The results are presented in Table 2. The mean of "seriousness" from the respondents with low SFR scores was less than the mean from those with high scores, though statistically marginal: $t(64)=1.89$, $p<.10$.[3]

Discussion
Though statistically marginal, the expected difference was observed again between those with high and low scores on the SFR scale in another group situation, providing further evidence of the importance of the concept of SFR. The respondents—attendees of a lecture session in this case—who had a lower subjective sense of reality of the situation seemed to be attending to the situation less seriously. This implies that if one does not subjectively feel that the situation is real, one does not engage in the situation very seriously. If a participant is not seriously attending to an experimental session in psychology, no result obtained from it will be reliable. This may be a good illustration of the fact that participants' sense of reality of a situation is the basic condition for any experimental setting in psychology—including those of group and intergroup experiments. Moreover, this problem occurs not only in the domain of experimental methodology in psychology, but also in the domain of group and intergroup theories, given the findings from Study 1. This issue will be addressed further in the General Discussion section.

To be fair, however, it should also be noted that

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[2]　This split design was used in a study whose aim was to examine the validity of the scale. The results of the study are reported elsewhere (Kakimoto, 2010).

[3]　There was no significant difference between the overall mean of the SFR score (range 3.00 to 21.00) in Study 1 ($M=12.75$, $SD=2.07$, $n=40$) and Study 2 ($M=12.95$, $SD=2.40$, $n=66$). $t(104)=.43$, *n.s.*

the tendency described above cannot necessarily be interpreted in terms of the assumed causal relation in the depicted way because the results were not derived from experimental manipulation of the subjective sense of reality, but rather stemmed from *post hoc* conditions based on individual differences along the SFR scale. This problem will be discussed in the following section.

GENERAL DISCUSSION

The two studies above successfully demonstrated that participants' subjective sense of reality of the situation, or *SFR* in this article, would be a necessary condition for a group situation to be considered "real", using different types of group situation. In Study 1, participants with low *SFR* scores identified with the group only to a moderate degree, even in a SIMINSOC game known for provoking group-level reality, while the group identification of those with high *SFR* scores was quite high. In Study 2, respondents with low *SFR* scores were likely to be attending to the situation less seriously. Taken together, these findings seem to imply that the participants' sense of the reality of the situation (*SFR*) is the basic and necessary condition for group and intergroup settings, given that (1) participants' group identification should be high when considering a group phenomenon, and (2) participants should be seriously attending to the situation when it is meant to be a serious study.

This argument is deemed to be of importance both in the general methodological sense and in the theoretical sense, particularly for group and intergroup research. While the former needs no explanation, the latter statement may. As stated earlier, a group or intergroup situation is defined, in most cases, in terms of the group members' subjective sense of being a member of a particular group (see Sherif, 1966, for example). Most of the theoretical models are built up based on this definition (e.g., Tajfel & Turner, 1979). This basic definition seems to presuppose the following two underlying conditions. First, a person needs to understand the situation as a *group* situation in order for the situation to be a group to that person. Otherwise, he/she cannot see him/herself as a member of it. Second, a person needs to experi-ence the situation *subjectively*; otherwise he/she cannot experience the *subjective* sense of being a member of it. These two conditions concerning the definition of a group or intergroup situation are logically related to the participant's subjective understanding of the situation. Furthermore, empirical support for this logic was obtained in the studies described above. Therefore, it could be argued, once again, that the subjective sense of the reality of a situation, or *SFR*, is a concept of theoretical importance.

Another issue to be addressed here is the causal relationship between SFR and the related variables. Because the SFR conditions were not experimentally controlled in the studies reported here, there is a room for a question about the causal relationship between SFR and the related variables, i.e. identification with the group and seriousness about the situation. The effect of SFR should be validated based on experimental controls. In order to experimentally control this variable, future research is needed to clarify the factors that create it.

Finally, it should be noted that SFR is argued here to be a *necessary* condition for the participants to identify with the group, and further for a group situation to be considered "real"; it is not argued to be a *sufficient* condition. There should be a number of further conditions besides SFR to be sufficient for group identification. These would include, for example, the salience of group membership for the participants (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), the emotional and value significance of the membership for them (Tajfel & Turner, 1979), and the impermeability of the group boundaries (Ellemers, van Knippenberg, & Wilke, 1990).

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Appendix

Table 3. Twelve SFR scale items, translated from Kakimoto & Hosono (2008)

Proactive interest in the situation

"The situation that I am in now attracts much of my attention."

"I am not at all interested in the situation that I am in now." (*R*)

"The situation that people around me are in now attracts much of their attention."

"People around me are not at all interested in the situation that they are in now." (*R*)

Once-ness of the situation

"The situation I am in now feels to me like the only one ever."

"The situation I am in now feels to me like many other situations." (*R*)

"The situation I am in now feels to me to be only here now."

"The situation I am in now feels to me like one that I can start over easily." (*R*)

Reality of the participants

"I certainly feel myself to be here now"

"I who am here now do not feel to be what I really am." (*R*)

"People around me seem to me to be certainly here now."

"People around me do not feel to me to be what they really are." (*R*)

* The response scale ranges from 1 "not at all" to 7 "very much."

** Reversed items are indicated with *R* in parentheses.