

## 子どもの発達に応じた創造的ディスカッション技能 を育む学習／教育環境作り

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# Is the Effectiveness of Verbal Interaction Determined by Task structure in an Informal Discussion ?

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## 1. Introduction

In everyday life, we often have discussions to exchange opinions so that we can examine our decisions or ideas. Through such discussions, we would revise or reject our prior attitudes or ideas if we find a weakness in the line of thought. In this sense, having an active discussion has a facilitative effect on thinking. Then, how is a discussant's change in his/her attitudes or ideas facilitated in everyday discussion? This is a major research question in our series of studies.

To investigate this question, we have mainly examined the facilitative functions of discursive process (e.g. Tomida & Maruno, 2005), because many researchers demonstrated that the discourse processes mediate collective thinking processes (Berkowitz & Gibbs, 1983; Berkowitz, Gibbs, & Broughton, 1980; Damon & Killen, 1982; Kruger, 1993). Especially, many studies in educational, developmental, and social psychology have shown that an active discussion including conversational conflicts (e.g. counter-arguing, doubting other's statement, pointing out the problem in other's statement) promotes the discussants' cognitive change (Berkowitz & Gibbs, 1983; Berkowitz, Gibbs, & Broughton, 1980; Kruger, 1993; Leitão, 2000).

However, our previous study found that conversational conflicts do not always

have such a promoting effect in everyday discussion (Tomida & Maruno, 2005). Why is there such an inconsistency? We hypothesized that structure of discussion tasks would be one of the factors that determine the effectiveness of the conflict-related utterances explained below.

Most of the previous studies, which have demonstrated the facilitative effects of conflict-related utterances, employed structured discussion tasks. In those kinds of tasks, since participants have only two alternatives for possible solutions which are mutually exclusive, they can easily discover disagreement in their lines of thought from the very outset of the discussion session. Then, in the structured discussion task, conflict-related utterances can facilitate the discussants' cognitive change (Kruger, 1993).

On the other hand, the task in our previous research, which is called as "non-structured discussion" here, has no such a facilitative structure. In this task, people are asked to explain why a social phenomenon occurs (e.g. teenager's impulsive violence). They almost always propose a variety of causes. Usually, these are not mutually exclusive. For example, someone might suggest "inability to tolerate frustration" and another person might assert that "stress has built up to an extreme." At a glance, these proposed causes appear compatible as an explanation system for teenager's impulsive violence, even though there might be some latent contradictions between the two causes. Then, the discussants would not be induced to reexamine their belief systems in the discussions. Therefore, conflict-related utterances would not facilitate the discussants' cognitive change in non-structured discussion task.

To examine this hypothesis, here we compared effectivenesses of verbal interaction in a non-structured task with that in a structured task. If our hypothesis is correct, conflict-related utterances would have a facilitative effect more in a structured task than in a non-structured one.

## 2. Method

Thirty-two Japanese graduate students ( $M = 25.25$  years of age; 12 males and 20 females) participated in both two kinds of discussion sessions (i.e. one is a struc-

tured discussion task; the other is a non-structured one). Discussions were held in dyad which were composed of same sex partners. Each session was held for the duration of 25 minutes.

In a non-structured discussion task, participants were asked to jointly construct more valid causal explanations about the discussion topic. On the other hand, in a structured task, they were asked to argue their own opinions against their partner's ones on the discussion topic.

Participants also completed several questionnaires before and after each session. These questionnaires mainly included the items to assess the degree of attitude changes on discussion topics and the items to assess the qualities of verbal interactions in each discussion session. The items to assess the degree of attitude changes were rated before and after each session. The items to assess the qualities of verbal interactions include 6 self-rating questions: (1) the frequency that he/she argued against the partner (Object); (2) the frequency that he/she was argued against by the partner (Objected); (3) the frequency that he/she interpreted and/or extended the partner's utterances (Interpret); (4) the frequency that his/her utterances were interpreted and/or extended by the partner (Interpreted); (5) the degree of impression that his/her opinions were supported by the partner (Support); (6) the degree of impression that his/her opinions were opposed to the partner's ones (Conflict); (7) the degree that he/she agree with the partner (Agree). All these question items were rated on 7-point scales.

### 3. Results and Discussion

Table 1 shows correlations between degrees of the attitude change and 6 self-rating scores on the qualities of verbal interaction that participants experienced in discussion sessions both in a structured discussion task and in a non-structured one. As shown in the Table 1, we found positive correlations between attitude change in the non-structured task and both "Objected" and "Conflict".

That is, while conflict-related interactions significantly promoted attitude change in a non-structured task, cooperative interaction significantly promoted attitude change in a structured discussion. These findings did not support our hy-

pothesis: the result showed an opposite tendency to our prediction. Further, the positive relationships between attitude change and conflict-related interactions seem to be inconsistent to the finding found in the previous study (Tomida & Maruno, 2005), which did not show any facilitative effects of conflict-related utterances.

There is a possible account for the inconsistency as explained below. The variables to measure cognitive changes at the present study are the attitudes on the discussion topics, although, in a non-structured task, participants did not have to examine their attitudes themselves. Rather, they were asked to jointly construct a causal explanation about the discussion topic. This means that attitude changes were facilitated under the condition that attitudes were not directly examined. Based on these findings, we can speculate that indirect examination of attitude/idea might facilitate attitude changes, especially in Japanese population. This interpretation is also supported by the fact that people deeply involved in Japanese culture have a tendency to avoid direct confrontation of their attitudes/ideas (Watanabe, 1993).

Even though the possible account above is plausible, we should conclude here that the task structure might not be the factor determining the effectiveness of conflict-related interaction: we need to explore other factors.

As a limitation, these findings obtained here were derived from only self-rating scores. To obtain more ecologically valid findings, we have to analyze actual discourse as did in our previous study (Tomida & Maruno, 2005).

Table 1. *Correlations between attitude change and qualities of verbal interaction.*

	Object	Objected	Interpret	Interpreted	Supported	Conflict	Agree
Non-structured task	0.24	0.42*	0.18	0.18	-0.05	0.34*	-0.01
Structured task	-0.30	0.20	0.33	0.35*	0.08	0.14	0.30

\*  $p < .05$

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