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From problem-orientedness to goal-orientedness: Re-conceptualizing communication strategies as forms of intra-mental and inter-mental mediation

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The use of communication strategies is one of the core components that constitute communicative competence. However, the problem-oriented conceptualization of L2 strategic behavior has been widely criticized as it does not give sufficient attention to the social nature of communication and learning (Cohen, 2014; Macaro, 2006). This study thus makes an attempt to re-conceptualize communication as a mediated activity that focuses on the process and goal of communication. Eight EFL junior high school learners in Taiwan participated in this study. Empirical data were collected from an oral elicitation task, and then triangulated by retrospective comments derived from stimulated recall interviews and semi-structured interviews with the participants. The data were coded with Dörnyei and Scott's (1995) taxonomy of communication strategies and mapped onto a sociocultural framework of mediation for analysis. The findings showed that the use of strategies was at times problem-oriented for the purpose of avoiding or solving communication breakdowns. Nevertheless, what seemed more significant was that interlocutors also made efficient choices of strategies according to the context and purpose of the task. It is rightly the purpose of this paper to develop an enriched view of L2 strategic competence that acknowledges both the problem-oriented and goal-oriented nature of communication.

Key words: communication strategies; sociocultural theory; mediation; EFL learners.

1. Introduction

The use of communication strategies is a widely researched phenomenon in second language acquisition (Bialystok, 1990; Faerch & Kasper, 1983; Hsieh, 2014; Kasper & Kellerman, 1997; Nakatani, 2006; Shih, 2014; Smith, 2003). Research in this area has gained significant momentum since Canale and Swain (1980) introduced strategic competence as one of the four components that constitute communicative competence. According to them, strategic competence is defined as “verbal or non-verbal communication strategies that may be called into action to compensate for breakdowns in communication due to performance variables or to insufficient competence” (p. 30). In line with this compensatory conceptualization, much attention was given to analyzing communication strategies as a way for interlocutors to deal with the “mismatch between communicative intention and linguistic resources” (Varadi, 1992, p. 437). Nonetheless, in recent years it has been regarded problematic to view strategic behavior from a deficit mentality (Cohen, 2014; Macaro, 2006). In light of the social turn of language learner research (Gao, 2006; Gao, 2007), it is therefore important that we refine our understanding of communication strategies through highlighting their social function and purpose in the process of communication. Drawing on sociocultural theory, this study re-conceptualizes and theorizes the use of communication strategies as multiple forms of intra- and inter-mental mediation for the maintenance and development of speech in L2 communication. It is our aim to develop an enriched view that acknowledges both the linguistic (problem-oriented) and the situated (goal-oriented) nature of communication.

2. Literature review

2.1 Why is the problem-oriented conceptualization not enough?

The study was motivated by Rampton’s (1997) critical observation that strategies “should

indeed be central in L2 investigation, but that their full significance can only be understood if the domain of communication strategy research is expanded beyond the particular kinds of psycholinguistic and interactional approach that currently dominate the field” (p. 279). The psycholinguistic view looks into the underlying mental processes in response to the gaps in the speaker’s linguistic knowledge, whereas the interactional perspective addresses the surface level use of strategies that are employed to improve the overall effectiveness of message exchange (Nakatani & Goh, 2007). In spite of their different theoretical standpoints, both psycholinguistic and interactional approaches traditionally conceptualize communication as problem-oriented (Dörnyei & Scott, 1997; Hsieh, 2014; Smith, 2003). The compensatory focus often implies that the use of strategies is validated only when a communicative problem is perceived (Bialystok, 1990; Faerch & Kasper, 1983).

Throughout the past two decades, the deficit notion of strategic behavior has been questioned by a number of researchers as it does not sufficiently reflect what happens in reality (Cohen, 2014; Macaro, 2006). In other words, interlocutors are not necessarily aware of problems in communication or simply do not feel the need to fix them in an ongoing dialogue. Wagner and Firth (1997) discovered that in many cases individuals “carry out their work without solving the communication problem at all” (p. 336). This observation was also supported by Williams and his colleagues (1997), who suggested that strategies “function more widely to adjust the communicative plan to the situation, rather than being strictly a response to a ‘problem’ (i.e. compensatory) or the result of an isolated internal process” (p. 306). In a survey conducted by the International Project on Language Learner Strategies in 2004, many strategy experts agreed that it was problematic to operate on a deficit mentality as this undermines the facilitative role of strategies in the context of L2 communication and learning (Cohen, 2014).

2.2 Re-conceptualizing communication strategies as forms of mediation

In light of such criticisms, various alternative approaches have been proposed to explore the true nature of L2 strategic behaviors (Gao, 2006; Oxford et al., 2014; Shih, 2014; Tseng et al., 2006). In this study we implemented a sociocultural framework for analysis as we believe that L2 communication, like any other linguistic phenomenon, is socially grounded in history, culture, and society. To adopt a sociocultural theory of mind has become more and more popular as it gives the opportunity to investigate strategic behaviors with wider contextual factors, such as affect, subjectivity, and power relations between the interlocutors (Gao, 2007). We are aware that it is beyond our capacity to fully explain how each of these issues impacts the use of communication strategies in this paper. However, we argue that a more comprehensive perspective that incorporates sensitivity to the social dimension of L2 communication is required for researchers to come closer to understanding the potential of using such strategies to enhance leaning and communication.

In this study we view the use of communication strategies as a goal-directed, mediated activity. The value of applying this sociocultural concept to investigate strategy behavior has been addressed by a growing number of researchers in recent years (Cohen, 2014; Donato & McCormick, 1994; Kao, 2006; Macaro, 2006; Oxford & Schramm, 2011). According to Lantolf (2000), the most central concept of sociocultural theory is that “the human mind is mediated” (p. 1). By mediation, sociocultural researchers refer to the ongoing dynamic connection between the social and the individual (Lantolf & Poehner, 2008; Oxford & Schramm, 2007). Following this line of thinking, every action, including communication, is mediated. Furthermore, all actions are assigned a meaning by the individual and thus directed toward a goal (Lantolf & Pavlenko, 2001; Wertsch, 1991). Symbolic tools, as opposed to physical ones, have significant value in the field of second language acquisition as they are employed for humans to organize and control cognition. They can be further divided into intra-mental (constructed independently by the individual) or inter-mental forms (co-constructed between individuals) for the purpose of understanding how different activities are performed. Given that communication is a contextually situated phenomenon (Gao, 2006), the present study thus aims to investigate the mediating role of communication strategies and move

beyond a problem-oriented view to include a goal-oriented perspective.

2.3 Mapping Dörnyei and Scott's taxonomy of communication strategies to a sociocultural framework of mediation

The taxonomy established by Dörnyei and Scott (1995) was adopted as the analytical tool for this study. Dörnyei and Scott's taxonomy is characterized by its multi-leveled structure regarding the use of communication strategies, where specific instantiations are categorized into higher order descriptions of direct, indirect, and interactional strategies (please see Table 1 on p. 12 for reference). This categorization is structured in a way that also enables analysis from a sociocultural perspective. In order to meet the communication goal, linguistic resources can be elicited with or without external assistance. In particular, in this paper we view direct and indirect strategies as forms of intra-mental mediation, and interactional strategies as forms of inter-mental mediation.

In the study conducted by Dörnyei and Scott (1997), direct strategies are defined as alternative and self-reliable means of delivering a message, while indirect strategies are employed to “facilitate the conveyance of meaning indirectly by creating the conditions for achieving mutual understanding” (p. 198). The use of both direct and indirect strategies occurs on the intra-mental plane in which they are recruited by the individual to mediate the goal of communication on his/her own. In sociocultural terms, mediation that is directed inwardly is particularly important for the role it plays in self-regulating one's cognition and speech (Cohen, 2014; Frawley & Lantolf, 1985; Ohta, 2001; Swain et al., 2010). In the study conducted by Saville-Troike (1988), there were forms of intra-personal speech that served this strategic purpose in the course of second language development. Ohta (2001) also identified similar features in her longitudinal research, suggesting that such kind of mediation provided “a creative locus of linguistic manipulation” (p. 30). When self-regulating properties are highlighted, we are provided with the opportunity to look into the meanings and functions that are given to each communicative activity. A sociocultural perspective

that acknowledges the agency of the individual could therefore help us to investigate how direct and indirect strategies operate as forms of intra-mental mediation in the process of communication.

On the other hand, interactional strategies are ways for interlocutors to negotiate meaning when a communicative impasse emerges (Nakatani & Goh, 2007). The interactional strategies in Dörnyei and Scott's (1995) taxonomy can be viewed as forms of inter-mental mediation as this occurs when external resources are called into action to solve communication problems cooperatively. The socially-situated interactional strategies often appear in collaborative dialogues, which are the main focus of sociocultural studies on inter-mental mediation (Ohta, 2001; Storch, 2002; Swain, 2000; Swain et al., 2002). Ohta's (2001) research showed that peer-to-peer mediation helped distribute cognitive burdens and stimulated the verbalization of thoughts, leading to the construction and co-construction of the intended message. In a follow-up study that focused on negotiations of meaning, Foster and Ohta (2005) further observed signs of interaction that were specific to L2 communication contexts, where a higher priority was given to maintaining a supportive discourse than obtaining comprehensible input. Similarly, Storch's (2002) research took aspects of interpersonal relationship into account. The results indicated that interactions between interlocutors who shared high mutuality and equality were most likely to contribute to language development. As such, research on inter-mental mediation offers us a way to analyze the role of interactional strategies for the maintenance and development of speech in L2 communication.

Drawing from the findings of previous research, we acknowledge limitations of the problem-oriented approach and therefore seek to include a goal-oriented dimension by viewing communication as a mediated activity.

2.4 Research questions

Having identified the gaps in existing literature, three research questions were proposed to examine the appropriateness of applying the concept of mediation to re-conceptualize and theorize

the use of communication strategies. The findings of this study are first presented in a linear fashion, and then theorized through an integrative account in the discussion section.

RQ 1: What types of communication strategies do EFL learners use in L2 communication?

RQ 2: How do EFL learners use communication strategies as forms of mediation to maintain and develop speech in L2 communication?

RQ 3: How do EFL learners perceive the role of communication strategies in L2 communication?

3. Research Design

3.1 Sampling of site and participants

The current research was framed as a small-scale qualitative study that aimed to explore the potential of using sociocultural theory to understand the use of communication strategies. The study was conducted at Northwest Junior High School (pseudonym) in Taipei, Taiwan. Purposive sampling was adopted as it enables a closer analysis of the studied context. Northwest Junior High School is a public school in Taiwan with a population of around 2500 students. In terms of the academic performances and socio-economic background of its students, Northwest Junior High school can be considered a representative example of the secondary schools in Taiwan.

In terms of the participants, eight students of both genders aged between 13 and 14 years old were selected from Northwest Junior High School. Chinese Mandarin is their L1 and English their L2. Selection of participants was based on the students' performance on a standardized test that measured basic skills of listening and reading. More specifically, those who passed the first phase of the elementary or intermediate level of the General English Proficiency Test (GEPT) were chosen to participate in this study. This criterion was applied to ensure that the participants shared similar language proficiency. On average, the selected participants had some extra-curricular language

experiences in addition to learning English as a subject for seven years in school. The participants were further paired up to form four dyads according to the similarity of their GEPT scores. They worked in the same pairs throughout the entire data collection process. As the participants came from different homeroom classes, they were not necessarily familiar with each other socially.

3.2 Data collection methods

Three data collection methods were employed in the research, including an oral elicitation task, a stimulated recall session, and a semi-structured interview. These methods were chosen to elicit a range of empirical data that could help capture a variety of strategies and the reasons why they were selected. The data collection process was conducted by the authors of this study in a separate classroom so that communication between the participants could be fully developed. All data were audio-recorded and the oral elicitation task was additionally video-recorded for use in the stimulated recall session¹. A research consent form was distributed before the data collection process.

The research started with an earthquake simulation task, which served as the oral elicitation task that involved joint decision-making between two participants in their L2. A short paragraph was provided to open up the scenario, which was then followed by sixteen items that might be useful for survival (please see Appendix A for the task worksheet). The participants were asked to rank the importance of each item in pairs and to complete the task requirement within seven minutes. The participants were also requested to communicate in their L2, given that L1 mediation was not the focus of this study. Unlike lexical-explanation tasks, the scenario task provided an authentic context where opportunities for interaction could be maximized (Nakatani & Goh, 2007).

Shortly after the oral elicitation task, stimulated recall sessions that each lasted for approximately 20 minutes were carried out to collect retrospective feedback. L1 was the dominant

¹ In order to reduce the sense of intrusion, a smartphone camera was used instead of a standard camera. The smartphone camera faced each dyad at a 45 degree angle so that the participants were less aware of its existence during the oral elicitation task.

language of this session, as a certain degree of linguistic sophistication was required for the participants to verbalize their rationalization behind their strategic behaviors. The video of the oral elicitation task served as a stimulus to reactivate the participants' memory. The participants were encouraged to make free comments, especially when signals of repetitions, slow rate of articulation, false starts, or nervous laughs were detected. Since recalls were susceptible to interference, the questions to stimulate feedback were designed as general questions, such as "What did you mean by this?" "Why did you say it this way?" "You paused for a long time, what was on your mind?" or "Do you remember what you were thinking at that time? What was it?" These techniques were designed to encourage the participants to explicate the underlying decisions regarding their selection of strategies, which in the oral elicitation task could have not been observable to the authors of this study.

Finally, a semi-structured interview was conducted to examine additional issues related to the participants' perceptions of communication strategies. The interviews were around 10 minutes in length with each pair of participants. There were two sets of interview questions, each addressing different issues regarding their use of such strategies. The first set aimed to elicit comments on the overall difficulty of the oral elicitation task; for example, "How did you think of the oral elicitation task?" "Was it challenging? If yes, in what ways?" The second set sought to uncover personal preferences on the use of direct, indirect, and interactional strategies in general situations. The questions included "What do you do when you encounter something you don't know how to express in a dialogue?" "Do you tend to alter your way of expression, ask for other's assistance, or need to deal with time constraints?" "What are the reasons behind your choices?" The answers were used to cross-check the findings generated from the oral elicitation task, thus providing complementary information to understand why certain strategies were preferred by different participants.

3.3 Data analysis

The procedures of data analysis involved three stages: transcription, coding, and sociocultural discourse analysis (Gee, 2014; Mercer, 2004). As the strategies included hesitation markers and non-verbal features, a narrow system of notation was used to transcribe the data derived from the oral elicitation task (see Appendix B). When this was completed, the identified strategies were first coded with reference to the specific strategy tokens listed in Dörnyei and Scott's (1995) taxonomy, and then classified into higher order categories of direct, indirect, and interactional strategies. In situations where several strategy tokens were contained within a single utterance, each of them was treated as a separate entry for the final calculation. Sociocultural discourse analysis was adopted for the interpretation of the data, which allowed us to move beyond examining the use of communication strategies on a surface level to viewing it as a situated action. In particular, the unit of analysis was not restricted to a single utterance, but sequences of connected talk that were both linguistically and socially coherent.

Perceptions regarding the use of communication strategies were analyzed based on the retrospective feedback collected from the stimulated recall sessions and semi-structured interviews. As the emphasis was put on the content, comments were transcribed at a lower level of detail and organized into themes based on two criteria. First, the themes were mainly recurrent communication issues that the participants encountered during the oral elicitation task; second, the communication issues corresponded to significant aspects of strategy research that adopts a sociocultural perspective. The emic data enabled us to fully examine whether experiencing a problem was a prerequisite to the use of communication strategies, and further provided empirical evidence to why it might be more suitable to view strategies as forms of mediation in achieving a communication goal. In order to enhance the reliability of the study, the identified strategies and themes were categorized through constant comparative analysis until the entire set of data was saturated theoretically. Similarly, the internal validity of the study was established through close inspection of data and several rounds of analysis by both authors.

4. Findings

In the following section we first give a comprehensive quantitative account of the frequencies of each strategy token that emerged from the participants' speech (RQ1), and then utilize extracts of data derived from the oral elicitation task to present how strategies were applied (RQ2). These are accompanied by the retrospective accounts collected from the stimulated recall sessions and semi-structured interviews to further illustrate the social and situated nature of communication strategies (RQ3). Finally, the findings of this study will be discussed with existing literature in the section that follows.

4.1 Frequency of direct, indirect, and interactional communication strategies

Table 1 presents the different types of communication strategies that were identified in the participants' speech. The frequency of each strategy was tabulated with reference to Dörnyei and Scott's (1995) taxonomy. Strategy tokens 1-19 are direct strategies, 20-23 indirect strategies, and 24-32 interactional strategies. The strategies were first located and then mapped onto different forms of mediation to further explain how they assisted the participants to attain their communication goal.

The preliminary analysis indicated that the most commonly employed strategies included fillers (67), repetitions (48), restructuring (19), retrieval (10), asking for confirmation (9), and use of all-purpose words (8). The frequency count for the other strategies was equal to or less than five. When the specific strategy tokens were classified into higher order categories of direct, indirect, and interactional strategies, the result showed that indirect strategies (116) were used most often, followed by direct strategies (74), and finally interactional ones (16). This phenomenon was consistent in all cases except for S4. It seemed that the use of communication strategies functioned primarily as a form of intra-mental mediation that involved changing ways of expression or dealing with time pressure. The participants in this study did not put much emphasis on interactional

	S1	S2	S3	S4	S5	S6	S7	S8	Total of each strategy token
Direct strategies									
1. Message abandonment				1			2	1	4
2. Message reduction			1			1			2
3. Message replacement		2		2		1			5
4. Circumlocution		1							1
5. Approximation				1				1	2
6. Use of all-purpose words		2	1	2			2	1	8
7. Word-coinage									0
8. Restructuring	3	5	1	3	2	1		4	19
9. Literal translation	1		2			1			4
10. Foreignizing									0
11. Code switching				3					3
12. Use of similar sounding words	1	2	1						4
13. Mumbling	1		1				1		3
14. Omission								1	1
15. Retrieval	2	1	1	3	1	2			10
16. Mime	1	1	3						5
17. Self-rephrasing		1							1
18. Self-repair	1					1			2
19. Other-repair									0
Indirect strategies									
20. Use of fillers	10	11	14	4	3	4	7	14	67
21. Repetitions	5	21	7	3	2	5	2	3	48
22. Verbal strategy markers				1					1
23. Feigning understanding									0
Interactional strategies									
24. Appeals for help		1							1
25. Comprehension check									0
26. Own-accuracy check		1							1
27. Asking for repetition					1				1
28. Asking for clarification				1				1	2
29. Asking for confirmation	4	3	1	1					9
30. Guessing		1							1
31. Expressing non-understanding									0
32. Interpretive summary		1							1

Table 1 The frequency of each CS in the participants' speech

strategies in the process of communication. They usually asked for others' assistance only in times of necessity; that is, when they could not find alternative expressions on their own. The reasons behind this outcome were further revealed through the participants' retrospective comments.

4.2 The social and situated nature of direct, indirect, and interactional strategies

4.2.1 Direct strategies

As the goal of the oral elicitation task was to come to an agreement regarding the rankings of the items for survival, the participants in each dyad attempted to employ strategies to fulfill the task requirements in the most effective way. In other words, strategies were mainly called upon for conveying a message instead of overcoming linguistic gaps that might interrupt the flow of communication. This phenomenon is clearly illustrated in Extract 1.

Extract 1

1. S1: So (.) um (.) I think (.) we have to have compass and map together.
2. S2: Yea.
3. S1: Yea so...
4. S2: So the next is map?
5. S1: Ok. Map is the eighth.
6. S2: But (.) wait...But the...We are under the (.) the collapsed apartment. Then we don't
7. know where we are. We don't ha- (.) We don't know the...decisions. So map...map I
8. think is the last.
9. S1: Ok.
10. S2: So what's the answer?
11. S1: Compass (.) eight? So you think the map is the last one?

12. S2: Yea.

As shown in the extract above, S1 and S2 were engaged in discussing whether the compass or the map was more important. In lines 6 and 7, we can identify a number of direct strategies that S2 employed to achieve the intended meaning of losing a sense of “direction” in the aftermath of the earthquake. Examples of direct strategies included restructuring (“But the...We are under the” and “We don’t ha- (.) We don’t know the...”), circumlocution (“where we are”), and the use of a similar sounding word (“decisions”). Interestingly, S2 stated in the retrospective interview that she was not conscious of any potential problems in this section during the task. S1 further mentioned that there didn’t seem to be a need to make lexical corrections as long as the intended meaning was successfully communicated. Similarly in the extract below, S3 and S4 also attempted to exchange their thoughts through different available resources. We can see that mutual understanding was sometimes achieved even when a communication gap was not completely resolved through linguistic means (Wagner and Firth, 1997; Williams et al., 1997).

Extract 2

1. S4: Yea. And then (.) maybe (.) a flashlight.
2. S3: Yea. Yes. And number four (.) I think lighter is important too.
3. S4: But you need a candle or other things that can...that can make the lighter...怎麼講²...
4. Uh just you...if you just only had a lighter, then wha- (.) what do you do about it?
5. S3: Maybe just use like (.) Uh if the flashlight is broken, then I can use a lighter to (.) take
6. its place.
7. S4: And then how about candle?
8. S3: Hm...I think just (.) Um...((using thumb to click the end of a pen to signal the action
9. of lighting something up))

² Meaning “How to say it.”

10. S4: Just let it light, right?

11. S3: Yea yea yea.

In Extract 2, S3 and S4 talked about the rankings of the flashlight, candle, and lighter. A question surfaced when S4 had difficulty in expressing the word “light” as a verb in lines 3 and 4. Utterances were restructured by S4 (lines 3 and 4) and attempts for clarifications were made by S3 (lines 5 and 6). However, in the end it was S3’s gesture of clicking the end of a pen that brought the interlocutors to an agreement of meaning. In spite of their non-linguistic properties, gestures and mimes are often useful direct strategies that help manifest the interlocutor’s message directly to others (McCafferty, 1998; McCafferty & Ahmed, 2000). In situations where the goal is clear and mutually acknowledged, mimes can be effective strategies in the process of communication. In short, the two extracts above show that the participants employed direct strategies for social concerns that were goal-oriented in nature.

4.2.2 Indirect strategies

The high frequency of indirect strategies indicated that they were helpful for the participants to deal with time constraints. The most common indirect strategies that were located in this study included fillers and repetitions. Extract 3 demonstrates a typical example of how fillers provided a means for the participants to buy time to think.

Extract 3

1. S4: I think the most important thing may be a bottle of water.

2. S3: Hm...But I think the most important thing is the whistle.

3. S4: Why?

4. S3: Because...eh...uh...hm...((embarrassed smile)) When I am tr- (.) trapped in the (.) in

5. the building, I can use the whistle and let other know that I'm inside of the ((hhh)) of
6. the building. ((S3 and S4 take notes))

The extract presents S3's intent to articulate the importance of the whistle for survival. The use of "Hm," "eh," and "uh" were alternative ways to fill up extensive pauses when S3 was busy searching for words. In lines 5 and 6, we can see that S3 was eventually able to offer a valid explanation for her reasoning, which was followed by S4's tacit agreement. The participants (S2, S5, S7, and S8) explained in the retrospective comments that the use of fillers allowed them to be actively engaged in the dialogue even when they were not fully prepared to take up the next conversational turn. The participants also acknowledged that in order to maintain the quality of communication, it was necessary to prioritize the most important message that needed to be conveyed instead of relying on excessive use of fillers to get all pieces of information across. These considerations show that even though fillers might have indicated problems with access to linguistic resources, the participants were not necessarily constrained by them. There was also evidence which seemed to demonstrate the participants' awareness of situational factors that interplayed in the process of communication (Cohen, 2014).

In addition to fillers, repetitions were alternative forms of indirect strategies that helped ease time pressure in real time speech. An example of other-repetition, which is a strategy characterized by the individual repeating something the interlocutor have just said, can be identified in the extract below.

Extract 4

1. S6: You think what might be the number one?
2. S5: What?
3. S6: You think what will be number one? Number one important?
4. S5: Number one...biscuit?

5. S6: Ok.

The repeated “Number one” in line 4 acted as a buffer while S5 was still processing her thoughts during the discussion. In some situations, self-repetitions played a similar role, too. However, the repeated question in line 3 served a different purpose; it was used by S6 to make the intended message more comprehensible to the listener. Depending on the context, repetitions have various functions in the process of communication. In general, they help facilitate the conveyance of a message indirectly by creating the conditions for mutual understanding (Saville-Troike, 1988; Ohta, 2001).

4.2.3 Interactional strategies

As in other cases mentioned previously that involved direct and indirect strategies, the interactional strategies that were identified in this study were called into action for goal-oriented purposes; that is, the participants used these strategies to better understand each other, reach a consensus, and ultimately fulfill the task requirements. The following extract presents an integrated discussion on the rankings of the compass, vitamin, bottle of water, and biscuits:

Extract 5

1. S2: Compass...compass
2. S1: I write compass at eleven.
3. S2: Hm yea ((comparing notes)) vitamin ((looking up)) then why (.) why you think the
4. vitamin is so important?
5. S1: I think it is (.) you have to survive (.) you ha- have need vitamins. And why you think
6. compass?
7. S2: Hm because you have to know the (.) know ((embarrassed smile)) (.) you have to

8. know where you are (.) so...but the vitamin is...
9. S1: You mean if we have food and water, then we don't have to eat vitamins?
10. S2: Hm...the vita- yea you are right but (.) if we (.) if we (.) know (.) if we don't have any
11. bottle of water or biscuit, then we have to need vitamins.
12. S1: Yes.

The extract shows that S1 and S2 disagreed on the rankings of the vitamins and compass for the survival of the earthquake. The bottle of water and biscuits were further brought into discussion for comparison with the vitamins. Several interactional strategies can be located in the extract: there was the example of asking for confirmation in line 9 ("You mean...") as well as an interpretive summary of the interlocutor's previous message in lines 10 and 11 ("if we don't have..."). Despite the fact that there were several grammatical errors in the interaction (for instance, the missing "do" in "why you think..." in lines 3 and 5), the participants were not necessarily aware of them. In other words, assuming all use of strategies to serve a compensatory function might be problematic. The extract shows that interactional strategies were used by the participants to increase comprehension of the content and played a facilitative role for attaining the goal of the task (Foster and Ohta, 2005).

According to the preliminary analysis of this study, interactional strategies had the lowest frequency count compared to their direct and indirect counterparts. The reasons for this outcome can be attributed to the social concerns that emerged from the interactions between the interlocutors. As mentioned in the retrospective comments, a large number of the participants (S1, S3, S4, S5, S6, S7, and S8) reported structural issues of initiation and turn-taking in the dialogue, especially occurring at the very beginning of the decision-making process. This is clearly displayed in Extract 6.

Extract 6

1. S7: What do you think the most important thing for survival is?
2. S8: The bottle of water.

3. S7: Hm... ((long pause))
4. S8: Hm...what do you think the least important thing is?
5. S7: I think the vitamin is the least important thing.
6. S8: Why?
7. S7: Because we don't actually use XXX
8. S8: But I think money is the least.
9. S7: Ok. ((hhh)) Hm...so...((long pause))

From the extract above, the long pauses in lines 3 and 9 reveal that S7 and S8 did not know what to do with conversational transitions. From a typical NNS-NNS interaction model that usually consists of an initiation, response, and feedback (Varonis & Gass, 1985), we can assume that there was a lack of substantial feedback or evaluation to the responses in this extract. As explained in the retrospective comments, the participants attributed the difficulty of initiation and turn-taking to familiarity issues. They revealed in the interview that they did not feel at ease to engage in a conversation with people whom they were not close to. In addition, they also acknowledged that such problems would unlikely have surfaced if they had conducted their speech in L1, implying that familiarity with a certain language posed a significant impact on the quality of interaction as well.

Another observation to make is related to how the participants negotiated the rankings of each item. Specifically, the overall length of discussion per item was usually fairly short and simple, which involved a linear exposition of the item selected, an explanation of the reasons behind it, and a decision on importance. In most cases, the rankings between the two interlocutors were not too different from each other, so messages could be co-constructed with the assistance offered by their partners. There were occasional minor disagreements where an exchange of arguments took place as a way of examining which one was more convincing. Nonetheless, as presented in Extract 7, several participants (S5, S7, and S8) expressed that they felt it was unnecessary to insist on their opinions or go through the tedious process of negotiation.

Extract 7

1. S5: What's number three?
2. S6: Hm...may- (.) maybe a bottle of water.
3. S5: Number four?
4. S6: Number four...maybe...maybe it's blanket. Then what's number five?
5. S5: Number five...flashlight?
6. S6: OK (.) I think number six might be lighter.
7. S5: Ok.

In Extract 7, there were no substantial forms of negotiations of meaning between S5 and S6. The participants basically agreed to whatever their partners suggested, which could be the result of mutual consensus that did not require further negotiation, or just a way to avoid confrontational situations that could hinder the completion of the oral elicitation task. The extract reminds us that other subtle social considerations such as teenage power relations and gender tensions can complicate the use of strategies in L2 communication (Rampton, 1997; Storch, 2002). As the traditional problem-oriented conceptualization often oversimplifies the scope of conversation to a mere exchange of lexical information, it is crucial to consider how the cohesion and coherence of utterances are influenced by social factors in the process of L2 communication.

5. Discussion

By combining our observations from the data collection process, in the following section we move on to explicate and theorize our findings with a focus on analyzing the mediating role of communication strategies. The discussion provides an integrative account of the three research questions that are proposed in this study in order to highlight the goal-oriented dimension of

communication strategies that is often overlooked in the process of L2 communication.

5.1 Communication strategies as forms of intra-mental mediation

Viewing communication strategies as forms of intra-mental mediation involves a situation where the individual carries out an act on his or her own to attain a communication goal. As direct and indirect strategies are employed by a speaker without reaching out to external resources, they can be seen as forms of intra-mental mediation in this study. The sociocultural re-conceptualization, therefore, allows us to focus on the self-regulating functions of such strategies in the process of L2 communication (Cohen, 2014; Ohta, 2001; Swain et al., 2010).

As the findings of this study have demonstrated, two of the direct strategies that were most commonly adopted were retrieval and restructuring. These were actions that mediated the construction of words and sentences respectively. Specifically, speakers used retrieval to encode and articulate several versions of their intended message (Dörnyei & Kormos, 1998). Restructuring, on the other hand, refers to participants translating information from their L1 when encountering difficulty. Despite these differences, retrieval and restructuring share similarities in that they appear to be fragmented on the surface as they are not fully automatized, and that they help process and regulate thinking (Ohta, 2001). Serving as forms of intra-mental mediation, the phenomena can be explained as social in origin but cognitive in function (Swain et al., 2010). By acknowledging the self-regulating properties of such strategies, we would like to stress the individual's capacity of using strategies to attain the goal of the task independently.

Intra-mental mediation can also be used to explain the function of indirect strategies, which showed the highest frequency among other strategy categories in this study. Most participants reported that on-line communication posed significant real-time pressure that restricted their potential to fully address the linguistic issues of vocabulary and grammar. Due to time constraints, indirect strategies allowed the participants to mediate the process of thinking, hold the floor, and

avoid lengthy silences (Dörnyei & Kormos, 1998). In addition to these roles, comments from the retrospective interviews suggested that stalling devices were also signals of difficulty that speakers employed for seeking assistance. This enabled a shift from intra- to inter-mental mediation, eliciting external resources to achieve the communication goal. Another common indirect strategy employed by the participants was repetition, which refers to simple echoic ways for expressing confirmation or non-understanding. This was highlighted in both the studies of Saville-Troike (1988) and Ohta (2001), in which repetition was identified as one of the prominent features of intra-mental mediation that allowed speakers to self-regulate their cognitive activities.

5.2 Communication strategies as forms of inter-mental mediation

When individuals resort to external resources in the process of communication, strategies can be seen as forms of inter-mental mediation, which in this study mainly refers to the interactional strategies listed in Dörnyei and Scott's (1995) taxonomy. Among the different types of interactional strategies, asking for confirmation had the highest frequency in this study. Unlike asking for clarifications, confirmation checks are usually answerable by a simple response and require no new information from the other speaker. In other words, it is an economic way to elicit assistance without risking the potential of miscommunication. Due to reasons of familiarity either with the L2 or the interlocutor, other interactional strategies were only called into action in times of necessity. The low frequency of interactional strategies echoed the discourse level challenge that the participants encountered, where they reported difficulties of not knowing how to initiate a response or take turns in a dialogue.

Aside from linguistic concerns, the nature of interaction also affected the use of interactional strategies in attaining a communication goal. In their study that investigated the differences between NNS-NNS, NNS-NS, and NS-NS interactions, Varonis and Gass (1985) reported findings that "those who had the most in common would also have the least to negotiate" (p. 83); however, in cases of

younger L2 speakers, it may be possible that a low frequency of negotiation also occurs between interlocutors who are unfamiliar with each other. This can be explained as avoiding “face-threatening and discouraging detours from the subject of the interaction” (Foster & Ohta, 2005, p. 425). The participants mentioned that there could be a higher chance of negotiating meaning in situations where the interlocutors shared similar thoughts. This helps refine the results obtained by Varonis and Gass: if the relationship between the interlocutors is highly mutual, they will not have many differences to negotiate or compromise; instead, they will be able to assist one another in forming utterances that would not have been completed on their own. As an extension to studies on collaborative dialogues (Ohta, 2001; Storch, 2002; Swain, 2000; Swain et al., 2002), the use of communication strategies with participants sharing a similar background allows successful peer-to-peer mediation, which leads to the maintenance and development of speech in L2 communication.

5.3 Moving from a problem-oriented focus to a goal-oriented focus

As the findings of this study have shown, different forms of communication strategies were frequently used in the speech of the participants. However, the participants did not necessarily employ strategies to deal with linguistic problems, but to achieve a communication goal with the available internal or external resources in the most effective way. This is different from the traditional conceptualization of communication strategies where problem-orientedness is emphasized. There is no denying that adopting a problem-oriented approach is useful for researchers to identify strategies and elicit comments regarding how they are used, but the social nature of such strategic behavior will only be fully understood if the scope of its definition goes beyond the speech production framework. In the case of this study, the participants actively engaged in communication as they strived to achieve a mutual agreement on the final item rankings for the survival task. They acknowledged their agency of control in the process of L2 communication, and were capable of

eliciting intra- or inter-mental forms of mediation to do so. As a result, the use of communication strategies demonstrated an obvious future-oriented goal and was directed towards a clear communication aim.

By adopting a sociocultural perspective, we believe that this study is potentially valuable to the field in that it shows how specific instances of communication strategies can in fact manifest goal-directedness in addition to problem-orientedness. The term, goal-orientedness, allows us to capture the mediating role of strategies and the social nature of communication. In line with previous sociocultural research, the study shows that human activities are based on orientations to particular goals that are affected by their social settings. We are not only looking into the speakers' surface linguistic output, but the underlying reasons for their selections that are shaped by the communicative event. As emphasized in Cohen's (2014) critical review of strategy research in the past few decades, the element of "choice" is what gives strategies their special character. In sum, we acknowledge that the *use* of communication strategies is at times problem-oriented, but we seek to refine our understanding by suggesting that the specific *choice* of strategy is goal-oriented. Among the many resources to choose from, interlocutors employ strategies that could help them attain their goal of communication in the most effective way. What constitutes strategic competence, in the end, may include more than having the ability to identify a communication problem; being socially aware of contextual factors may be a critical additional component to managing a successful communication.

6. Conclusion

The current research aimed to uncover insights into the use of communication strategies with a specific focus on understanding communication as a mediated activity. As the traditional problem-oriented definition falls short of recognizing the social nature of such strategic behavior, we have proposed to re-conceptualize communication strategies with the notion of mediation. By doing

so, the findings showed how specific instances of such strategies led to the fulfillment of particular task requirements and goals. We would therefore like to suggest that goal-orientedness is an important addition to the conceptualization of communication strategies if social considerations are taken into account.

In order to fully investigate the role of communication strategies, it would be valuable for future research to continue to examine the use of strategies within a sociocultural framework, especially in terms of how strategies mediate the maintenance and development of speech in L2 communication. A systematic analysis with a sociocultural awareness reminds both language instructors and learners that strategies are best employed flexibly with sensitivity to various communication goals and the context from which they emerge. Methodologically, a focus on the mediating role of strategic behavior will require researchers to put emphasis on conducting qualitative, in-depth analysis based on solid empirical data. Due to the relatively small number of participants involved, we acknowledge that our study is exploratory in nature and that it is still too early to make any generalizations. We are also aware that the use of a single task in this study is a limitation that could have affected the outcomes and our interpretations. For such reasons, it is important to further examine whether goal-orientedness is manifested in other L2 communication contexts. As suggested by Firth and Wagner (1997), researchers who work with “a re-conceptualized SLA will be better able to understand and explicate how language is used as it is being acquired through interaction, and used resourcefully, contingently, and contextually” (p. 296).

It is 1am in the morning on a summer day. A magnitude 7 earthquake has just rocked Taipei. You are alone trapped under your collapsed apartment. You are not hurt but you don't know whether your other family members are fine or not. All power is out and you are out of touch from anyone around.

Rank the 16 items according to their importance for survival, with one being the most important.

Gloves	First-aid kit	Compass	Whistle
Map	Lighter	Money	Radio
Bottle of water	Candles	Biscuits	Cellphone
Blanket	Flash light	Face mask	Vitamins

Your decision with your partner:

1. _____

9. _____

2. _____

10. _____

3. _____

11. _____

4. _____

12. _____

5. _____

13. _____

6. _____

14. _____

7. _____

15. _____

8. _____

16. _____

Table A.1 For data elicited from the oral elicitation task

S1:	Student 1
S2:	Student 2
yes,	A comma indicates continuing intonation
?	Rising intonation, not necessarily a question
end.	A full stop indicating falling (stopping) intonation
(hhh)	Laughter
...	Three dots indicate a pause of about one second
(.)	A dot in brackets indicates a very short gap in time of one tenth of a second or less within
foo-	An abrupt cut-off of the prior word or sound
[Indicates the place where overlapping talk starts
]	Indicates the place where overlapping talk terminates
c[æ]t	Phonetic transcription
((wave hands))	Transcriber's comments including those about non-verbal actions
((unintelligible))	Talk that is unintelligible
(sea)	Unclear or probable item

Table A.2 For data elicited from the stimulated recall session and semi-structured interview

S1:	Student 1
S2:	Student 2
R	Researcher
yes,	A comma indicates continuing intonation
?	Rising intonation, not necessarily a question
end.	A full stop indicating falling (stopping) intonation
(hhh)	Laughter
...	Three dots indicate a pause of about one second

Adapted from the transcription of Ellis and Barkhuizen (2009, p.226, 227)

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