Individual orientations towards the same task:
An activity theory perspective

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Abstract

This study discusses verbal and nonverbal features of dialogic interactions between interlocutors based on a task given by the researcher. It focuses on task-openings that show evidence of how each interlocutor approaches the given task. The study argues that each interlocutor's orientation to a task is a crucial factor in understanding individual differences in task performance. It argues for interpreting task within the notion of activity as more important in understanding such interactions.

1. INTRODUCTION

Task-based conversational interaction has been an important focus of second language (L2) research since the 1980s. It follows the view that interaction engenders negotiation of meaning between interlocutors when engaged in conversational interactions, that such negotiation leads to linguistic adjustments and makes input comprehensible, and that such input facilitates language learning. As a result of this approach, task-based investigations have become important in L2 research. Tasks have been categorized in various ways, for example, tasks that enable obligatory exchange of information, tasks that allow optional exchange of information, tasks that require reaching convergent views, tasks that allow divergent views, and so on. There is a strong research approach motivated by this perspective (Long, 1981, 1996; Gass, 1997, 2004).

The notion of task itself has become important in this line of research. Task is seen as assuming an objective status, categorized as simple or complex depending on cognitive demands it may impose on subjects. Tasks are carefully selected based on their pre-determined characteristics and subjects are expected to follow researcher's instructions when performing the tasks.

While this line of research has been significant in several ways, other researchers have questioned the notion of task in terms of their cognitive dimensions and controlled treatment. In

a well-known study, Coughlan and Duff (1994, p. 175) distinguish between "task" and "activity" as follows:

> A task is a kind of "behavioral blueprint" provided to subjects in order to elicit linguistic data....An activity, by comparison, comprises the behavior that is actually produced when an individual (or group) actually performs a task."

In other words, there may be a discrepancy between what a researcher wants the subjects to do and what the subjects actually do. This view is motivated by the broader notion of human activity in which task is but one element, and the more important elements are the human agents actively engaged in interactions, following their own motives and goals rooted in their social experiences. This view is motivated by the Vygotskian psycholinguistic theory which provides a sociocultural perspective of cognitive development (see Wertsch, 1985, 1998) and has been a significant influence in L2 research since the 1980s (see Lantolf, 2000; Lantolf and Thorne, 2006).

2. THE STUDY

This study is theoretically motivated by the sociocultural theory adopted in L2 research (Lantolf, 2000). It utilizes the notion of orientation as understood in this theoretical perspective. As Lantolf and Thorne (2006, p. 304))—referring to Gal'perin's (1979) general theory of human mental functioning—put it, "mental activity is controlled by three processes: orientation, execution, and control." Similarly, Talyzina (1981, p. 61), while extending Leontiev's theory of activity, focuses on the level of action and presents its course in terms of three functional components: orientation, execution, and control. While the execution component covers the actual implementation of a plan of action, and the control component functions as the monitor, providing feedback, it is the orientation component that initiates the course of an action. "The orientating function of an activity determines what and how something is to be done" (Lantolf and Thorne, 2006, p. 304).

Hence, orientation refers to the initial state of an individual in approaching a given task. In other words, it shows how an individual approaches a task by considering what the goal of the task is and how or under what conditions the goal is to be reached. In this context, it is essential again to emphasize that orientation is a subjective state of mind. As Talyzina (1981, p. 61) remarks:

The orienting basis of actions refers to that system of conditions upon which persons rely *in fact* in guiding their actions. This may or may not coincide with what is objectively appropriate.

In much of L2 research mentioned earlier, objective appropriateness has been seen as a crucial factor for a given task to be carried out. Objective appropriateness refers to the task requirements set externally by the researcher and the conditions in which the requirements are to be met. It is assumed that a subject satisfies the criterion of objective appropriateness in a researcher-given task. However, orientation refers to those features of requirements and conditions that are *actually* considered relevant *by* the individual. In some cases, the individual may incorporate all of the conditions, in some cases only some of them, and in other cases, he may even bring in features which are irrelevant given the conditions.

In this context, task-openings provide crucial evidence for orientation. An analysis of individual behavior, both verbal and non-verbal, at the beginning of a task provides clues to the orientation component and its effect on subsequent course of an action. From this perspective, observable features in the course of an action in a specific task are explicable with reference to the principle of orientation, providing evidence for the significance of motive.

3. DATA AND SUBJECTS

The discussion in this study looks at task-based conversational interactions involving both native speakers (NS) and non-natives speakers (NNS) of English. It analyzes selected excerpts from three dyads: a NS-NNS dyad, a NNS-NNS dyad, and a NS-NS dyad. All of these dyads were given the same task.

The task was presented as a "visual puzzle solution" task (taken from Ur, 1981, p. 62) in which seven pictures were shown on a page, each picture showing a goat, a wolf, a cabbage, and a man in a boat. The interlocutors were expected to discuss and agree on how to rearrange the pictures in a certain order. The rearrangement would show how the man was able to safely carry the wolf, the goat, and the cabbage from one side of the river to another and avoid the problems he faces.

The researcher introduced the task materials to the subjects. The materials consisted of two pages: one showing the pictures and the other written instructions for the task. The researcher asked them to follow the instructions and left the room. A video camera was left

running throughout the activity. The videotaped conversations were later transcribed, covering both verbal speech and non-verbal behaviors.

The dialogs in the following section show how the interlocutors begin the discussion tasks assigned by the researcher. The analysis focuses on verbal and non-verbal features of their conversational interactions.

4. ANALYSIS

Dialog I [NS-NNS]

[The researcher leaves the room. The interlocutors start reading the instructions separately. The male NS seems to have finished reading first. He takes the picture sheet and looks at it. The female NNS continues to read. The NS begins the dialog. Reading time: one minute and 50 seconds when the first utterance is heard.]

A. NS: this is...uh...do you understand this problem?
   [shows the picture sheet to the NNS]

B. NNS: uh...um
   [At this point, the NNS has, in fact, not seen the pictures. When the NNS says uh...um, she looks back at her instruction sheet. In fact, the NS holds the picture sheet throughout the conversation.]

C. NS: you can...uh...you've got three things

D. NNS: O.K.

E. NS: uh...the wolf...the goat...and the cabbage
   [the NS points out the pictures of these on his instruction sheet]

F. NNS: cabbage...uh...um
   [when the NNS utters (D) and (F), she actually keeps looking at her instruction sheet]

G. NS: right/ and then the river

H. NNS: that's right/ and the man
   He has a boat...and he will carry
   [points out in her instruction sheet]

I. NS: right

J. NNS: three/ all of/ these things…for the

K. NS: he wants all these on the other side

L. NNS: side

M. NS: starts with all three on one side

    [*looks at the picture sheet. the NNS does, too.*]

N. NNS: uh..um

In terms of solving the puzzle correctly according to the researcher's criterion of objective appropriateness, it is essential that the interlocutors take two important steps: go through the written instructions carefully and check the picture sheet. The NS does both (read and check the picture), while the NNS keeps reading the instruction sheet. In this context, the interlocutors in the above excerpt show variable behavior which affects the course of action in the conversation subsequently.

It is the NS who begins the conversation. His opening utterance (A) is crucial in providing clues to his orientation. The very first words this is indicate that he has already formulated some understanding of the problem. The declarative form of the utterance indicates his attempt to present his proposition about his understanding of the problem, but then he hesitates (…uh…) and, instead, checks if she understands or not. His question (a yes/no as opposed to a wh-question) points out that he may not be actually seeking information about her understanding of the problem. Rather, he seems interested in checking if the other interlocutor understands the problem the way he understands it. In fact, he immediately begins to explain what he thinks the problem is, as shown in the subsequent utterances (C) and (E).

On the other hand, the NNS at the beginning of the conversation is still visually confined to her instruction sheet. Her first utterance uh…um is evidently not a response to the NS' question (A) in terms of understanding the problem the way he has. In fact, when she says this, she has not yet checked the picture sheet and her eye gaze is still focused on her instruction sheet.

Thus, at the beginning of the action in this specific task, the two interlocutors exhibit variable verbal and non-verbal behaviors, which provide clues to their cognitive states of mind. The NS, who has been able to read the instructions and check the picture sheet, formulates an understanding of the problem and initiates the discussion. In his definition of the situation, he

assumes the responsibility for solving the problem. Linguistically, his opening statement indicates he already has in mind some model for solving the problem; non-verbally, by holding the picture sheet in his own hand, he establishes himself in a position of authority. Thus, from the very beginning, he assumes control of the conversational activity.

This sense of control characterizes the NS' orientation towards the task, which proves to be a crucial factor in determining the course of action. In the rest of the conversation, he continues to control the conversation. Throughout the conversation, it is he who behaves as the problem-solver and the explainer of the solution. Non-verbally, he continues to hold the picture sheet and suggest how the pictures are to be sequenced. By doing so, he lessens the possibility of completing the task jointly with his conversational partner.

A similar effect of the orientation on the course of the action is found in the task opening for the NNS-NNS conversation. The following excerpt includes data until the first picture is identified:

Dialog II (NNS-NNS)

[*The researcher leaves the room. X, a female NNS, laughs a little. Both start reading the instructions separately. After a few seconds, X takes the picture sheet and looks at the instruction sheet and the picture sheet several times. Then she focuses on the picture sheet exclusively and seems to be figuring out the sequence. Y, a male NNS, continues to read the instructions. X speaks first. Total time elapsed before the first utterance is heard: one minute and 50 seconds.*]

A. X: are you ready?

B. Y: yeah

C. X: ok...[*laughs a little*]...I did this before.../

But [*laughs again*]/

yeah...ok... [*very low tone*]/

[*tone rises in the following*]

do you understand?

D. Y: yeah...I understand...yeah.../

means...uh.../...it means...uh...if...if

the wolf...and the goat...stand together...

the wolf will...

[In D, Y points out the first picture to explain]

E.   X: uh...um...yeah *[low tone]*

F.   Y: eat the goat/

so...how does the man...carry this two things...

from here to here

[Y's this *and* that *are accompanied by non-verbal pointing in the first*
picture]

G.   X: uh...um...*[low tone]*

H.   Y: right?/.../and...the goat...will eat the cabbage

[laughs a little]

I.   X: um *[very low tone]*

J.   K: *[pause for a few seconds]*...first...

[Long pause (for 35 seconds). During the pause both X and Y murmur
once. Y uses his pencil to point. He quickly looks at the pictures from top
to bottom. X, focuses on one specific picture.]

K.   X: yeah...I think...this is first

[points out the fourth picture]

L.   Y: of course...this is...*[low tone]*

[points out the same picture]

the sheep...the goat...the goat...*[low tone]*

Similar to the NS-NNS dialog [I], once again one of the interlocutors (X) reads the instructions, checks the picture sheet, and seems to have figured out the problem, while the other interlocutor (Y) keeps reading the instruction sheet. This interlocutor (X) initiates the discussion. Her first utterance Are you ready? (A) indicates a certain state of cognitive preparedness on her part for solving the problem. In (C), she reveals that she had done this kind of problem before, thereby assuming a certain control of the task in the face of the other interlocutor. This constitutes her orientation towards the task.

On the other hand, Y also indicates some understanding when he says yeah...I understand (D), but he is still confined to the limits of the instruction sheet. In fact, when he

explains his understanding to X, he uses the first picture on the picture sheet as a means of explaining the instructions; it is only then that he looks at the picture for the first time. At this initial stage, Y has not yet had a full view of the arrangement of the pictures on the picture sheet, while X has already checked it before the conversation started.

The goal, that is, the identification of the proper sequence of the pictures, is reached essentially by means of X's identification. In (K), X identifies the first picture in the proper sequence. In the rest of the conversation, she continues to identify the subsequent pictures, without any explanation to the other interlocutor, as the following excerpt shows:

Dialog III (continues from Dialog II)

A. NNS(X): I think this is third/

[*pause for a few seconds*]

and this if fourth…I think

B. NNS(Y): and then carry…

C.   X: and then this is five

D.   Y: the goat…[*laughs a little*]/ yeah

[*X laughs a little*]

that's it

E.   X: yeah…then/…/this is six/…/and seven

F.   Y: six…seven…/yeah…that's it

G.   X: we didn't discuss/…/but

H.   Y: not very difficult [*laughs*]

and…I did this…once…so I

remember [*looks at X*]

In short, X solves the problem independently of Y. There is no discussion or explanation of her choice, a fact that is in violation of the researcher's instructions and which she notices at the end of the conversation.

In fact, as Dialog II shows, while Y continues to explain his understanding of the problem, she begins to figure out the sequence of the pictures on her own. Her positive responses to Y are in a low tone. The 35 seconds pause following utterance (J) evidence her working on her

own. This strategy of independent problem solving is eventually attributable to her own orientation towards the task. Significantly, as her utterances (in Dialog II) show, she ostensibly checks with Y, and seems to be exchanging information, but it means little here in terms of problem solving.

A significantly different effect or orientation on the course of action is found in the NS-NS conversation on the same task. The following excerpt presents the task opening and a portion of the subsequent course of action:

Dialog IV (NS-NS)

[*X (a NS) and Y (also a NS) read the instructions separately. Y does not seem to have gone through the whole instruction sheet. Just after a few seconds he looks at X momentarily. His eye gaze is not focused on the instruction sheet. He looks around. Looks restless. Meanwhile, X keeps reading. When the first utterance is heard, 40 seconds have elapsed.*]

A.   NS(X): let's look at the pictures

[*X smiles...holds the picture sheet*]

B.   NS(Y): yeah

C.   X: oh...he's to take them all across/.../

he needs the cabbage

D.   Y: you probably need to arrange the pictures

In the proper order/

[*glances at the picture sheet...goes back to the instruction sheet now*]/.../

the goat/.../the goat will eat the cabbage...

given a chance

[*reads from the instruction sheet*]/.../

O.K...[*very low tone*]/.../

uh...so what's the person have to do

going across.../.../

ok...[*pause*]

E.   X: the wolf

F.   Y: the wolf will eat the goat.../

the goat will eat the cabbage.../but

[*looks at the instruction sheet*]

G.   X: the wolf won't eat the cabbage

(*X stresses cabbage. Looks at the picture sheet.*)

H.   Y: right

I.   X: let's bring the wolf first

J.   Y: O.K.

K.   X: then the cabbage/.../

then the goat/.../

then he's over there with all three [*low tone*]

[*looks at Y*]

the wolf and the cabbage will be left alone (rising tone)

L.   Y: ok.../ we have to arrange

what is it...we have to arrange each of the pictures in a sequence

[*rising tone*]

[*looks at the picture. Looks at the instruction sheet*]

The non-verbal behavior at the very beginning shows that Y, the male NS, does not pay attention to the instructions. On the other hand, X, the female NS, does read the instruction sheet. She begins the conversation. However, her very first utterance is crucial revealing her strategy. When she says <u>let's look at the pictures</u> (A), non-verbally she has not yet checked the picture sheet. Thus, when she begins the conversation, she actually draws the attention of the other interlocutor to the second object in the task, i.e., the picture sheet. Unlike the NS-NNS [Dialog 1] and the NNS-NNS [Dialogs II and III] conversations, where the interlocutors at the beginning of the conversations exhibit some understanding the problem, X (in Dialog IV) continues the process of comprehending the task materials. When she begins the conversation, she has not yet developed an understanding of the macrostructure of the picture sheet, not to speak of any possible solution to the problem. She adopts, what may be called, a strategy of 'first insight' and follows it through.

Her utterance in (I), which appears as the first overt attempt to solve the problem, is significant. From the researcher's perspective, the ideal way for discussing the problem is for the interlocutors to focus on how *the man in the pictures* solves the problem. This perspective on the

part of the interlocutors indicates some cognitive distancing from the task objectives, i.e., the pictures. Thus, the interlocutors should say something like the man brings the wolf first. However, X's utterance (I) is let's bring the wolf first. In other words, in X's perspective, the problem is to be solved in terms of what she and her conversational partner should do in the situation depicted by the pictures. It is an approach that shows a lack of the macro-level understanding of the problem. Hence, the attempt (I) reveals the absence of the task control.

Furthermore, X's solution, suggested in (I) and (K), is a preliminary attempt at solving the problem. It is an instantaneous response to the immediate contexts of the pictures and does not take into account any macrostructure provided by the set of pictures in relation to the instructions. Thus, it proves to be an ad hoc attempt which does not succeed given the constraints of the puzzle. Later, X abandons this plan and tries other ones.

Speaker Y, on the other hand, is on a still lower level of understanding the problem. He is not even sure of what the goal of the task is. In (D), he expresses his uncertainty by modifying his statement of the goal with probably. Still later in (L), he is not sure if they are supposed to arrange the pictures in a sequence. Furthermore, as shown throughout the excerpt, he readily accepts every suggestion offered by X, and constantly keep repeating phrases from the instructions sheet. His understanding, at least until the end of the excerpt, is limited to bits and pieces of information of the instruction sheet.

Thus, at the very beginning, both the interlocutors to varying degrees react to certain micro, or local features of the problem in the task. Unlike the NS-NNS and the NNS-NNS dyads, in which at least one of the interlocutors exhibits some understanding of the macrostructure of the problem, these interlocutors in the NS-NS dyad lack such an understanding. As such, they take considerable time in reaching the goal of the task itself, which is to find the proper sequence of the pictures. While the other dyads complete the task in about 5 minutes, this dyad completes the task in about 8 minutes and 45 seconds.

Furthermore, the interlocutors in this dyad face considerable difficulty in developing a strategic or overall understanding of the problem. At several points they become confused about the nature of the problem. Twice, speaker Y considers eliminating some pictures from the set because he thinks their number exceeds the number required for rearranging them in the proper order. This consideration, however, is irrelevant to, or in violation of, the researcher's instructions. Consequently, both the interlocutors are often object-regulated by the pictures in

isolation. In other words, they are stuck in single pictures as discrete or disconnected pieces. They are unable to achieve cognitive distancing which they need to look at all the pictures in relation to one another.

5. CONCLUSION

To summarize, an analysis of the verbal and non-verbal behaviors of the individual interlocutors in the three dialogs shows variable initial approaches towards the task. This variability, reflecting the orienting function, results in different control patterns during the course of the action. It is explicable with reference to how an individual defines a task. Thus, the NS-NS dyad, by not paying attention to the researcher's instructions because of their lack of interest in the task and lack of prior experience, ends up being the most-object regulated of the three dyads. In other words, instead of being able to control the task of logically rearranging the pictures, they are themselves controlled by the pictures as objects

This kind of analysis derives from a sociocultural perspective e of human activity. Lantolf & Thorne (2006, p. 237), referring to Coughlan and Duff's (1996) distinction between "task" and "activity," highlight the significance of agency and activity in relation to subjects and tasks: "...within experimental contexts, subjects must be acknowledged as agents, who strategically orient themselves in ways that may, or may not, align with guidelines imposed by the researcher." In other words, individuals have their own motives and goals in engaging in any activity and which are rooted in their own sociocultural experience. Individuals bring their own motives and goals whenever they are assigned a task by a researcher, and data focusing on individual orienting functions provide important clues to their motives and goals. To conclude, the concept of activity, or "mediated activity" to be more precise, has become important in L2 research. Such a concept is rooted in a long and rich research tradition originating from the Vygotskian psycholinguistic theory in the 1930s (Cole et al., 1997; Dixon-Krauss, 1996; Engestrom et al. 1999; John-Steiner et al., 1994; Kozulin et al. 2003; Norris & Jones, 2005; Vygotsky, 1978; Wertsch, 1998; Wertcsh et al. 1995).

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