

Speaking to solve and solving to speak: Motives in tasks

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Abstract

This paper utilizes the Vygotskian concept of activity to analyze task-based conversations between native and non-native speakers of English. The analysis is in the form of discourse analysis of selected excerpts from conversational data. The paper highlights interlocutors' motives as important in task performance. By doing so, it emphasizes that conversational interactions are not just transfer or exchange of meanings; the attitudes and feelings of the participants towards tasks are more crucial.

Key words: Vygotskian theory, activity, motives

1. INTRODUCTION

Vygotskian psycholinguistic (or sociocultural) theory has received growing attention in second language acquisition research (see Lantolf and Appel, 1994; Lantolf, 1994, 2000). In this theory, there are several core concepts, e.g., mediation, internationalization, zone of proximal development, genetic domains, and activity. The concept of activity is fundamental. In fact, it underlies the other concepts, serving as a general explanatory principle and providing an analytical framework for data analysis.

According to this analytical framework, any activity under investigation is analyzed at three distinct levels: activity, action, and operation, corresponding to motive, goal, and conditions of psychological behavior. These distinctions, propounded by A. N. Leontiev (1981), allow an investigator to use different functional criteria and examine the same phenomenon from a variety of functional perspectives. Second, the theory includes the notion of goal directedness, which, in fact, corresponds to the level of action. This goal-directed approach essentially focuses on the functional dynamics of a behavior instead of its structural characteristics. Thus, the conscious goals of an individual in any activity are crucial for an investigator to uncover if he is to understand that individual's behavior. These three levels—activity/motive, action/goal and operations/conditions—constitute the unit of analysis that incorporates the various macro- and micro-features of an activity under investigation.

Within this analytical framework, the highest level of dialogic speech activity is the motivational sphere of an individual. In terms of Leontiev's analytical framework, the motives of the individual interlocutors encompass the levels of goals and the conditions under

which the interlocutors attempt to reach their goals. In fact, observable features at the level of operations become fully explicable only in light of the motivational sphere.

This paper focuses on one macro-level feature that relates to the motivational level: task-as-object. Task-as-object here implies object-relatedness on the part of the subjects; in other words, it refers to how the subjects view the tasks given to them by the researcher. It entails the basic notion that a task assigned by a researcher is not significant so much in terms of the conditions as set by the researcher but in terms of how the subjects psychologically relate to the task.

2. TASKS AND DATA

In keeping with this idea of task-as-object, this paper makes an important task distinction in conversational interaction: on the one hand, there are interactions in which the interlocutors *solve tasks to speak*; on the other hand, there are interactions in which the interlocutors *speak to solve tasks*. In the former, the interlocutors' motive is to perform for the researchers; in the latter, they believe genuinely in the given task, i.e., motive and goal coincide.

The tasks and the data presented in this paper come from a larger pool of data in a dissertation study (Ahmed 1988). That dissertation study focused on dyadic conversational interactions involving native speakers of English (NS) and non-native speakers of English (NNS). All the interactions were based on specific tasks assigned to the subjects. A total of five different tasks were used and involved 15 pairs of NS and NNS. All the conversations were videotaped and transcribed for analysis.

In this paper, relevant excerpts from conversations have been selected. All the excerpts (with just one exception) refer either to "Task IV" (in the dissertation study) or to "Math task." The one exception—excerpt [2] below—is taken from Task I.

Task I, in the dissertation study, involved a picture description activity in which one interlocutor was asked to describe a diagram and the other interlocutor to listen and draw and the diagram. The listener could ask clarification questions or use confirmation checks. The materials for this task were taken from Anderson et al. (1986: 151). Task IV was a discussion activity in which the interlocutors were asked to discuss a problem in an imaginary situation and arrive at a mutually agreeable solution. The situation involved the problem of surviving with limited resources on a desert island. The interlocutors were given a list of items, categorized under six groups, to choose from. The materials for this task were taken from

Duff (1986: 174). Finally, the math task consisted of a set of mathematics problems that the interlocutors were asked to solve jointly.

Tasks I and IV were part of the “solving-tasks-to-speak” category, and the math task of the “speaking-to-solve-tasks” category. For the former, the subjects were asked by the researcher to do the tasks as part of a research study. For the latter, the subjects were enrolled in a math course and were asked by their math course instructor to solve some math problems that were related to what the subjects were doing in their math course. Furthermore, they did this activity as a preparation for their final examination in the math course.

In this paper, the excerpts presented in the analysis and discussion section are taken from the conversations of various dyads performing the above tasks. The excerpts have been numbered serially within []. Furthermore, each exchange is identified by a letter (A, B, C, etc.). The native or the non-native speaker identity of an interlocutor (NS, NNS), gender (F, M), and the task (Task I, Task IV, Math task) are also shown in each excerpt.

3. ANALYSIS AND DISCUSSION

This section interprets the macro-level feature of task-as-object in order to uncover the motivational level of the conversations. In other words, it focuses on the nature of motive an interlocutor shows in his or her speech while engaging in task performance. For this purpose, the analysis focuses on task-directed meta-comments in individual interlocutor’s speech. Accordingly, the discussion in this paper proceeds as follows. It first provides a detailed analysis of the occurrence of task-directed meta-comments in both math and non-math conversations. Then, following such an analysis, the paper in conclusion highlights the significance of the meta-comments in relation to Vygotskian perspective.

3.1 Non-math tasks

The following excerpt has been extracted from the NS-NNS conversations on Task IV. The following excerpt show their discussion concludes:

- [1] A: NNS: that’s it/
it didn’t took much time...I think
B: NS: what time is it?/
how much more time?
C: NNS: but maybe...real situation will take more time
D: NS: maybe what?

E: NNS: will take more time to...you know...
 bring this...bring this...don't bring that.../
 you are safe now [laughs]
 [NS(F)-NNS(M): Task IV]

The NNS is explicit about the fact that the task, requiring discussion of an imaginary situation, did not take much time. From this perspective, in a real situation it would have taken more time to choose the items because something real would have been at stake. There would have been more commitment in deciding which items to take and which items to leave. The speaker's you are safe now (E), accompanied by laughter, captures the feeling of the interlocutor in defining the task-situation. The significant point in this excerpt is not whether a real situation would have taken more time but the fact that in this interlocutor's perception there is a real/unreal distinction which has affected their actual discussion of the imaginary situation. Similarly, the NS is concerned about the factor of time in doing the task itself. Her how much more time (B) indicates she is concerned about the ten-minute time limit set by the researcher.

Similarly, in the following NS-NS excerpt from Task I, the interlocutors express such concerns as the test-like feature of the task and the objective of the researcher:

[2] A: NS(Y): did he tell us to wait here
 B: NS(X): I think he is at the way
 C: Y: I've a lot of stuff to do
 [pause: 55 seconds]
 D: X: this is probably part of the test
 E: Y: uh.um...yeah
 [pause: about 40 seconds]
 F: X: waste of tape here
 G: Y: I know
 H: X: we finished so long
 I: Y: What's the experiment for?
 K: X: he's an instructor.../
 something in linguistics
 L: Y: uh.um
 M: X: he's probably testing to see if we
 listen to what he said
 NS(X,F)-NS(Y,M): Task I

In another part of the conversation in the same task, while describing the given diagram, speaker Y expresses such concerns as giving proper directions to the listener (e.g., "ask me any questions you want.../...I'm giving terrible directions") and speaking loudly (e.g., "do you think I talked loud enough.../.../ hear it on the tape"). This speaker is aware of meeting certain performance requirements (goals) set by the researcher.

Similar concerns are expressed by the interlocutors in other tasks. In the following excerpt, in the NNS-NNS conversation, after she has solved the problem, the female speaker remembers that she was supposed to discuss the problem according to the task-requirement set by the researcher:

- [3] A. NNS(X): ...that's it
 B. NNS(Y): we didn't discuss/.../but...
 C. (X): not very difficult [*laughs*]
 D. Y: and...I did this...once...so I remember [*looks at X*]
NNS(X,M)-NNS(Y,F): Task IV

In the following excerpt, in the NS-NS conversation on the discussion of an imaginary situation, the researcher-directed comment verges on frivolity in its use of slang expression:

- [4] A. NS(X): yeah/.../canned beans
 B. NS(Y): gonna be farting up a storm
 C. X: he's going to love this...
NS(X,F)-NS(Y,M): Task IV

In fact, the conversation in this particular dyad is interspersed with comments that make fun of the situation, a situation which is supposed to be serious.

Such meta-comments reveal not only how the interlocutors view a specific task but also how they carry out the task. An important piece of evidence is found in the NS-NS conversation in Task IV. The interlocutors approach the task with a sense of fun and haste. Towards the end of the discussion, the following exchanges occur:

- [5] A. NS(Y): group five [*very low tone*] ...first aid kit
 B. NS(X): yeah...first aid kit .../.../
 you probably won't need bows and arrows...
 C. Y: fishing pole might be good
 D. X: yeah...fishing pole .../.../we don't need chairs
 E. Y: probably set of knives
 F. X: yeah
 G. Y: or ropes
 H. X: what'd we use ropes for though?
 [*both laugh*]
 in case we wanna hang ourselves [*very low tone*]
 I. Y: /.../ok ... a set of knives .. first aid kit ...
 and a fishing pole?
 J. X: right/.../and then six
 [*X sounds relieved*]
 K. Y: I think frozen fruit
 L. X: did you see what time we started?
 M. Y: no...I am flying through [*laughs*]

- N. X: all right .../.../I'm missing my class/
 all right ... group six ...uh
NS(X,F)-NS(Y,M): Task IV

In (A), the interlocutors turn to the items in group five. As the exchanges (A-F) show, they do not feel it necessary to check with each other about the reasons for choosing specific items, even though the researcher's instructions specifically require them to first discuss and then agree. When they move on to group six, the last group, there is a heightening sense of rush to complete the task (and then six).

Furthermore, the psychological attitude of these interlocutors also accounts for certain operational details in their conversation. Their conversations sound authentic when they communicate personally, and not for the sake of the task. Thus, the mention of rope (in G) evokes the ridiculous image of hanging themselves on the island. Earlier in the course of the conversation, similar responses are found, as seen in the following excerpts:

- [6] A. NS(X): and the third thing
 B. NS(Y): get crazy...get a can opener
NS(X,F)-NS(Y,M): Task IV

- [7] A. NS(X): what if there isn't wood [*laughs*]
 B. NS(Y): we die [*die stressed*]
NS(X,F)-NS(Y,M): Task IV

- [8] A. NS(Y): juices ... OK
 B. NS(X): you know we'll have a little nutrition in there [*laughs*]
 C. Y: have a party ... get wrecked [*wrecked stressed*]
 D. X: that's true [*laughs*]
NS(X,F)-NS(Y,M): Task IV

In all these cases, the interlocutors move from the seriousness of the imaginary situation of the task itself and indulge in frivolous personal comments.

A significant effect of the view of the task itself as an artificial object of activity is also found in the following excerpts:

- [9] A. NNS: but if you have also the flashlights...they can see you...no...
 flashlights?
 B. NS: uh.um
 C. NNS: but they?
 D. NS: I think you need small ones
 E. NNS: small ones
 F. NS: yeah ... anyway.. [*laughs*] ... number two
 G. NNS: number two
NS(F)-NNS(M): Task IV

- [10] A. NNS: I have ... I have choose the gun.
 B. NS: but then you have to have bullets
 C. NNS: guns ... bullets ... and ropes [*rising tone*]
 D. NS: uh.um [*laughs*]
 E. NNS: to make a trap for ... you know ... the animal ... with the ropes
 F. NS: but what happens when you run out of bullets .. with the gun
 G. NNS: I still have the ropes (they both laugh)
 H. NS: but if you have the knife [*knife stressed*]
 ...then... [*pause*]
 we can come back to that [*laughs*]
 group six [*pause*]
 I. NNS: frozen meat
 J. NS: uh.um

NS(F)-NNS(M): Task IV

These two excerpts are taken from the NS-NNS conversation in Task IV. In [9], the interlocutors discuss the choice of the items in group one. The NNS argues about choosing flashlights, one of the items in the group. However, the NS' utterance in (F) is significant in that she moves on to the items in the next group without making any final choices in the first group. The NNS, as indicated in (G), accepts her decision to move on to the next group. The NS' anyway, with laughter (F), points out that she does not want to discuss further the choices at this point.

Similarly, in [10], the interlocutors discuss the choice of items in group five. As can be seen in the exchange from (A) through (G), the NNS is quite strong in arguing for his choice. At the same time, the NS strongly expresses her disagreement. In (G), the NNS continues to persist. But then comes the turning point in (H). The NS presents her preference for the knife, and is about to explain the reason for choosing the item, but then, after a pause, changes her mind and decides to move on to the next group without making the choice final. The NNS once again accepts her decision, as indicated in (I). (I) actually begins the discussion of items in group six.

This analysis shows that the NNS discusses and presents his choice strongly, a behavior that fulfills the researcher's instruction to first discuss and then agree. However, the NS decides in both cases to arbitrarily stop the ongoing discussion and move on to subsequent groups. Thus, she behaves as the controller of the other interlocutors by controlling the discussion itself. This amounts to doing a task and having a goal different from those stipulated in the researcher's instructions. In short, while the NNS tries to comply with the researcher's request, the NS, in contrast, prefers to get through the discussion quickly.

Furthermore, at the end of the discussion, she returns to these groups to make the choices final. This provides evidence that for her the task is simply choosing three items from each

group as quickly and expeditiously as possible. She is not interested in making the imaginary situation authentic in the conversation. Significantly, as seen in excerpt [1], which shows important task-directed comments at the end of the the same NS-NNS conversation, she is concerned about the time factor. In short, the task is treated by her as unreal, the motive being to complete it and get out. In this context, the NNS seems to be more concerned with the researcher's instructions.

To summarize, the task-directed comments in non-math tasks reveal the interlocutors' attention to such features as real- versus unreal-world distinction and test-like features [2], task requirements by the researcher [3], a sense of frivolity [4], [6]-[8], and task as an artificial object [9]. The comments also reveal attitudes and feelings that affect how a task is carried out [5]. All these comments have the effect of removing the tasks from any genuine activity in the interlocutors' perspective.

3.2 Math tasks

On the other hand, in the math conversations, such task-directed comments which highlight tasks as being unreal and artificial in the eyes of the interlocutors, do not occur in math tasks. At no point do the math interlocutors cognitively distance themselves from a task and talk about it as an external object given by the researcher. In fact, the math tasks are defined in terms of their function in satisfying the genuine needs of the students, i.e., as a review session for an upcoming examination.

Accordingly, some task-directed meta-comments of a different kind occur in math dyads. In these comments, the interlocutors do not perceive the task as unreal. The following excerpts are instances of task-directed comments in the three math dyads:

- [11] NNS(X): A. this thing is so hard/ [*both laugh*]
 B. if...if...this was ...uh..exam.../
 C. I would not solve it at all [*laughs*]
NNS(X,M)-NNS(Y,F): Math Task

- [12] A. NNS(Y): 24 minutes
 B. NNS(X): only 24 minutes [*laughs*]
 where are we?/ number
 C. Y: six
 D. X: number five
 E. Y: no .. we are going to six ..
NNS(X,M)-NNS(Y,F): Math Task

- [13] A. NS(X): I got this wrong on the last exam
NS(X,F)-NNS(Y,F): Math Task

- [14] A. NS(X): would you be able to do that on a test/
would you pick two to the X?
B. NS(Y): I would pick two to the X because we just did the problem
NS(X,F)-NS(Y,F): Math Task
- [15] A. NS(Y): aren't they both
B. NS(X): what kind of function does he want though
C. Y: no matter what ... they are both going to be
NS(X,F)-NNS(Y,F): Math Task

One important concern that emerges from this sample of task-directed comments is the reference to the real exam or test. In [11], the speaker mentions the strategy he would have adopted in solving the problems if this were a real test. In this review session, since they have been provided adequate time by the researcher, there is no hurry to solve the problems. The reference to the exam also appears in [13] and [14]. In [13] it is in terms of episodic memory, and in [14] in terms of possibility. The concern about time emerges significantly also in [12]. But here it is different from the concern for time expressed in non-math dyadic conversation (e.g., [1]). In [12], the concern for time is task-related in that the interlocutors experience a realistic test-like situation in which given the time limit the number of problems solved is crucial. In contrast, in non-math tasks, time is not crucial to task goal.

Excerpt [15] is significant. It looks like a researcher-directed comment. However, in this context, the speaker is actually referring to an authority figure. Such reference to an authority figure is a basic fact of test-like situations in the academic environment and is significant in revealing a major problem in the thinking processes of students in problem-solving situations. In other words, in this specific situation, the student is not so much thinking about solving the problem as attempting to comply with the expectations of the instructor, a normal student test-taking strategy.

4. CONCLUSION

To sum up, task-related comments in math tasks express realistic concerns. Such comments place the math tasks within the context of natural and real academic activity in the perspective of the interlocutors. On the other hand, the task-directed comments in non-math tasks have the effect of characterizing the researcher-given tasks as unreal and, thus, distanced from any genuine activity. The stakes for the interlocutors in the math tasks are high because it involves real benefits in terms of doing well in the upcoming exam. However,

the non-math tasks are risk free. The interlocutors do these tasks mainly to satisfy the researcher.

The task-related comments are significant in that they manifest task definition, and thus reference determination, on the part of the interlocutors. In this context, they form a kind of psychological macrostructure that reveals how the interlocutors relate to the tasks. Significantly, these meta-comments constitute the affective bent in an interlocutor's speech. Affective bent is crucial in Vygotskian psycholinguistic theory in that the theory does not separate cognitive processing from emotion, as is often done in Western research. In fact, Wertsch (1985:188-9) points out, for Vygotsky the organization of mind was a central issue in his later accounts of consciousness. He saw mind in terms of a hierarchy in which consciousness is the highest level component with affect and intellect as its two basic subcomponents. These subcomponents are crucial in their dynamic relationship. In Vygotsky's perspective (quoted in Wertsch 1985: 189):

The separation of the intellectual side of our consciousness from its affective and volitional side is one of the fundamental flaws of all the traditional psychology. Because of it thinking is inevitably transformed into an autonomous flow of thoughts thinking themselves. It is separated from the living motives, interests, and attractions of the thinking human.

In short, Vygotskian theory propounds a view of mind in which affect "provides the integrating and motivational forces for consciousness" (Wertsch 1985: 189). In this context, task-directed meta-comments discussed in this section help uncover an interlocutor's affective bent which is integral to his cognitive processing in person/task interaction.

In much of the mainstream second language research, on the other hand, focus is on data which show transfer/exchange of information. Furthermore, it is assumed that subjects perceive tasks as genuine and carry them out according to instructions. Consequently, task-directed meta-comments are not highlighted in any analysis. The mainstream research thus is limited in capturing the attitudes and feelings towards a task.

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