Visualizing the process of internalization through a language game: Constituting intersubjectivity in class

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要旨

　ヴィゴッツキーの社会文化理論では、「学習」は学習者が他者との言語交互作用の中で、外部からの情報を内面化する過程で起こると考えられている。その内面化過程の構成概念とその進行の特徴を構造的、体系的に議論されたものはほとんどない。本稿では、日本語の単語ゲームに参加する日本語学習者が、教室での言語交互作用の中で、いかに日本語の単語を学ぶかという内面化過程を可視化しようと試みるものである。その可視化に際しては、相互に関連し合う三つの論理的組み立てを用いた‐発達最近接領域 (ZPD)、間主観性 (intersubjectivity)、言葉の異言語混淆 (heteroglossia) (ホルクウィスト, 1994)。

【キーワード】object-other-self regulations, the Zone of Proximal Development, intersubjectivity, heteroglossia

1. Introduction: the concept of internalization in Sociocultural Theory

The basic tenet of Vygotskian Sociocultural Theory (SCT) is grounded on an assumption that human mental functioning emerges in social interaction with others (Daniels, 2008; del Rio & Alvarez, 2007; Ellis & Barkhuizen, 2005; Holland & Lachicotte, 2007; Johnson, 2004; Lantolf & Poehner, 2008). Focusing on this socio-genetic human functioning, Vygotsky (1978) postulated that human action and thinking are mediated by socioculturally constructed tools (technical tools) and signs (psychological tools). Such mediational tools do not shape human action and thinking directly but change the process of higher mental functioning. Particularly, Vygotsky emphasized the importance of

language for mediating human mental functioning emerging in the process of social interaction. Knowledge is social in nature, and learning is a fundamentally social process.

To espouse his socio-genetic orientation of human mental functioning, Vygotsky claimed that "every function in the child's cultural development appears twice: first, on the social level, and later, on the individual level; first between people (inter-psychological), and then inside the child (intra-psychological)," (1978, p. 57). In this connection, Wertsch (1980, 1991) demonstrated a model of mother-child (female) interaction which occurred in a task of putting together a puzzle using a model puzzle as a guide. First, the child cannot figure out how to proceed with the problem solving task. The child's attention is placed only on the task of finding the correct pieces at first. To highlight the characteristic of this stage, Yoshida (2009) pointed out that "the child's attention is attracted exclusively to its physical environment" (p. 8). At this stage, the child is object-regulated.

Moving onto the next stage, however, through interaction with her mother, the child comes to realize how to carry out the task by herself. The child participates in the interaction and carries out the task under the guidance of her mother. The child's cognitive function to solve the problem is facilitated and controlled by her mother's metacognitive advances in the interaction. At this stage, the child is other-regulated. In other words, the child's mental functioning is regulated by her mother's guidance.

Finally, the child gradually starts controlling her own metacognitive strategies to solve the problem without relying on her mother. It becomes possible for the child to solve the problem by herself with her independent strategic function provoked in the mother-child interaction. At this stage, the child is self-regulated.

Central to this account of internalization from inter- to intra- psychological function are the studies investigating the role of social interactions which generate the changes in human action and thinking. It is obvious to see that the child's mental function is mediated by mother's metacognitive language. Lantolf and Thorne (2007) acknowledged that "Self-regulation is made possible through internalization - the process of making what was once external assistance a resource that is internally available to the individual (though still very much social in origin, quality, and function)" (p. 204). It is essential to claim that three strata of cognitive shift (from object-, other- and to self-regulation) serve to elucidate the process of internalization.

Taking into the account of the Vygotskian socio-genetic mental functioning, the researchers in the study of second language acquisition (SLA) investigated L2 acquisition focusing on the course of language socialization that happened in particular sociocultural settings of language classrooms (Anton, 1999; Donato, 2000; Mondada & Doehler, 2004; Nassaji & Wells, 2000; Ohta, 2001; Storch, 2002; Swain, 2000; Yoshida, 2009). They tried to demonstrate how individuals acquire an L2 in the Vygotskian scheme of transformation from inter- to intra-psychological planes. L2 acquisition occurs in the internalization process in which inter-psychological function occurs first and intra-psychological function follows (Kozulin, 2003; Lantolf & Thorne, 2006).

However, a question of how the L2 learners may go through their internalization process remains unanswered. Seen in the light of inter- to intra-psychological function in SCT, the purpose of this paper is to attempt to visualize the process of internalization through which the learners acquire their understanding. This paper particularly tries to

discuss the examples of visualized process of internalization during which L2 learners in Japanese as a second language class (JSL) learn Japanese verbs while playing in a language game. To illustrate the examples, it becomes necessary to provide some guiding principles for externalizing the process of the cognitive development. To outline some of the key constructs to visualize the internalization process, there are three interconnected concepts to be discussed: (1) Vygotskian concept of the Zone of Proximal Development (ZPD), (2) a state of intersubjectivity and (3) Bakhtin's concept of heteroglossia.

2. A language game as a goal-oriented activity

The goal of the language game discussed in this paper is for an L2 learner in the JSL class to tell Japanese verbs with key words and phrases given by her or his other members in the group. First, the whole class is divided into two groups, and in each group, the members choose their individual representative who will tell the verb by responding to the key words and phrases given by the members. A specific picture of a Japanese verb in each play is shown on the screen. Each answerer sits in front of the screen facing front to the teammates with her or his back to the screen. The answerer's teammates can see the screen but the answerer cannot. Each answerer tries to guess a Japanese verb that is shown on the screen, helped by her or his teammates who will provide key words and phrases in Japanese, which they think are helpful for the answerer to guess the correct verb. The answerer has to pronounce the correct verb in Japanese.

For example, using a picture of a Japanese verb "to interview" for both groups A and B, an answerer X in group A sits in front of the screen and tries to guess the picture of the

verb "to interview" by trying to pronounce some verbs repeatedly until she or he has the correct answer. Simultaneously, an answerer Y in group B does the same thing. Competing between the two groups, the first answerer to guess the verb correctly is a winner.

The underlying force for driving the students to engage in this goal-oriented activity is desire for winning the game by exchanging Japanese words and phrases. The students participating in the game share the same goal of winning. In order to win the game, the members in each group can practically provide any words and phrases to assist their answerers except their hand gestures and the translated English counterparts of the Japanese in question. For example, for a verb, "to interview," the key words and phrases can be "job (noun)," "to work (verb)," "company (noun)", "to get a job (verb)," and so on.[1] Throughout the game, the teacher is a quiet observer without intervening in the verbal exchanges between the students in the game.

3. Internalization

3. 1 Vygotsky's concept of the Zone of Proximal Development (ZPD)

It is important to demonstrate how individuals acquire an L2 in the Vygotskian scheme of transformation from inter- to intra-psychological planes. In the game of the Japanese verbs, it seems clear that verbal interaction among the students becomes the primary tool for mediating their mental functioning. In order for the answerer's internalization to emerge in the verbal interaction, there are certain types of supporting elements embedded in the surrounding sociocultural context in the class.

One of the most important elements for facilitating the process of internalization is the Vygotskian concept of the Zone of Proximal Development (ZPD) (Chaiklin, 2003; Poehner, 2008). Kinginger (2002) points out that "the ZPD construct is a shorthand device capturing the emergence of cognitive development within social interaction, when participants are provided assistance from more-competent others (teachers or peers) as they engage in learning activity" (p. 240).

The concept of the ZPD provides an important insight into the process of facilitating internalization (Swain et al., 2011), which involves a transformation shift from inter- to intra-psychological planes within social interaction in the ZPD. The expert and novice jointly engage in the social interaction. In an attempt to illustrate the level of potential development as determined through problem solving under expert's guidance, Vygotsky (1978) states that:

> the zone of proximal development…is the distance between the actual developmental level as determined by independent problem-solving and the level of potential development as determined by problem-solving under adult guidance or in collaboration with more capable peers. (p. 86)

In the game of Japanese verbs in JSL class, it seems appropriate to claim, then, that under guidance from more capable peers, who actually have the correct answer by looking at the picture, the answerer's latent proficiency is realized on the level of potential development through the social interaction in the ZPD.

3. 2 A state of intersubjectivity

There is further discussion to argue how the L2 learners with their own private worlds share the common objectives set in the language game. This leads to a study of a state of intersubjectivity. Intersubjectivity is the notion that separate individuals interactively share a common world in which they have potentials to know and act conjointly (Lantolf & Throne, 2006; Rommetveit, 2003). Vygotsky's concept of ZPD is grounded on this notion in relation to his socio-genetic construct of cognitive development. Within the distance delineated by the ZPD, Vygotsky believed that an individual comes to attain the potential to internalize meaning from the social interactions.

However, Vygotsky's concept of the ZPD becomes plausible only on an assumption that an individual learner's mental functioning evolves monolithically, traveling from a lower to a higher level in the cognitive distance. On this assumption, a state of intersubjectivity functions as a framework in which separate individuals act harmoniously based on their shared understanding. A state of intersubjectivity does not preexist in social interaction among individuals, but rather is constructed at different levels in different moments of the interactive process. A state of intersubjectivity is time-bound and interpreted differently by individuals who participate in it. Therefore, a state of intersubjectivity does not always presuppose harmonious actions on the part of its members. An individual answerer in the game of Japanese verbs may resists harmonious actions by providing her or his own different ideas not elicited by the key words and phrases given by the teammates. It seems possible that the routes of the individual answerer's sense-making processes are diversified and time bound. This notion of inharmonious action may make

the game more exciting and enjoyable because the answerers have to go through their diversified routes to reach the correct answers.

3. 3 Bakhtin's concept of heteroglossia

To reach the correct answers in the Japanese verb game, the answerers use specific key words and phrases to mediate their mental function in order to make "sense" to them. The process of the mediated action for making "sense" is not static, but rather dynamic and time-bound. The answerers need to go through the process of selecting the appropriate answer for obtaining their best interpretation from the verbal exchanges in the classroom. The term, "appropriate" in this case means that "something external is imported and transferred to fit the purpose of the new 'owner' " (Rogoff, 1995, p. 152). Given a verb, "to get a job," for example, the answerers deploy a wide array of interpretations of the word to guess the correct verb, "to interview." In the interactive verbal exchanges, it is clear that the language functions as an important vehicle to shape mental functioning in a particular sociocultural setting.

From this view of dynamic nature of mediated action for making "sense," Bakhtin emphasized that language inherently possesses the heterogeneous potentials, with which language is used and interpreted variously in the dialogic interaction between the speech producer and the addressee. Utterances are comprised of many voices that the speech producers appropriate to fit the best purposes. For example, when we speak, we draw on the voices that endorse or negate many different points of views around us. Bakhtin called these heterogeneous potentials embedded in language "heteroglossia" (1994, p. 114). He

wrote that, "All languages of heteroglossia, whatever the principle underlying them and making each unique, are specific points of view on the world, forms for conceptualizing the world in words, specific world views, each characterized by its own objects, meanings values" (1994, p. 115). Uchida (2012) calls such heterogeneous potentials embedded in words as "cosmology" or "story", which inheritably constitutes their sociocultural and ideological framework for various interpretations (p. 253). The important point is that individuals construct their specific voices heterogeneously through dynamic dialogic interaction with others in the group.

Instead of refusing to study such heterogeneous individual voices as unmanageable for a systematic analysis, Bakhtin explored the ideas of multi-voiced appropriation and heterogeneous aspects of language. Johnson (2004) states that "According to Bakhtin, in speech there are two forces that work simultaneously: centripetal and centrifugal" (p. 126). Centripetal forces facilitate the process of appropriation moving toward unity and system. Driven by the centripetal forces, for example, the answerers in the Japanese verb game tend to appropriate the ideas of unification moving toward the sociocultural and ideological norms embedded in the Japanese language. Bakhtin (1981) asserted that "These forces are the forces that serve to unify and centralize the verbal-ideological world" (p. 270).

On the other hand, "centrifugal forces tend to move toward heterogeneity, opposition, and diversity" (Johnson, 2004, p. 126). Bakhtin (1981) adds that "Alongside the centripetal forces, the centrifugal forces of language carry on their uninterrupted work; alongside verbal-ideological centralization and unification, the uninterrupted processes of decentralization and disunification go forward" (p. 272).

4. Visualized examples in the internalization process

To bring my argument to the fore, this is an attempt to illustrate an example of the visualized process of internalization which can occur in the Japanese verb game. In a specific playing of the game, for example, given with a picture of the verb, "to interview", one male student named Wong (pseudonym) seemed to have difficulty in guessing the verb. After several verbal exchanges for seeking for the correct verb, one of Wong's teammates, Vittorio (pseudonym) tried to help Wong by stating the phrase, "an oral test next week."[2] Vittorio's phrase was not seemingly related to the key point of the game to elicit the correct answer from Wong. However, Wong was successfully able to come up with the correct answer, "to interview". To explain the reason, it seems plausible to assume that Wong could guess the verb correctly because of the fact that all the participating members in the class shared the information regarding the oral test in the following week. Their teacher announced in class that they would actually have an oral test in the following week, and the format of the oral test would take a form of an interview.

It is important to note that Wong succeeded in guessing the word correctly in spite of the fact that he inherently possesses his heterogeneous potentials for appropriating the answer elicited in his verbal exchanges with others. In an attempt to delineate the process of Wong's internalization, there are three interrelated concepts are involved; namely (1) the Wong's self-regulation in his ZPD, (2) a state of intersubjectivity established in the class, and (3) the centripetal forces that Wong used to select his appropriate word from heterogeneous potentials.

It is obvious that Wong's cognitive development did not seem to occur without the

social interaction with his members in the group. Under guidance from more capable peers in the group, who actually had the correct answer by looking at the picture, Wong as a novice went through the scheme of transformation from inter- to intra-psychological planes. The social interaction in which Wong and his teammates engaged created ZPD, where Wong successfully came up with the correct answer.

Not only was the emergence of ZPD created in his social interaction, but also a state of intersubjectivity was formed simultaneously. A state of intersubjectivity functioned as a framework in which Wong responded harmoniously based on his shared understanding with others. A state of intersubjectivity is time-bound and interpreted differently by individuals. However, the shared information of the oral test constituted a framework in which Wong successfully selected the appropriate answer. It is obvious that without the state of intersubjectivity, Wong could not have appropriated the answer to fit the best purpose of the guessing game.

In addition, Wong was able to guess the correct verb because he used centripetal forces. As discussed in Bakhtin's notion of heteroglossia, Wong inherently possesses his multi-voiced and heterogeneous potentials for his constructing his own voices. Centripetal forces facilitated the process of Wong's appropriation in constructing his voice moving toward the harmonious understanding for the game. In spite of the seemingly unrelated key phrase, "an oral test next week", he used the centripetal forces to come up with the correct answer. Among other multiple possibilities for appropriation, the centripetal forces drove Wong to select the answer.

When Wong responded Vittorio's key phrase, "an oral test next week" with the correct

answer, "to interview", we can see the underlying nature of the internalization process of Wong's appropriation, which stemmed from their verbal interaction. It is important to point out that Wong succeeded in guessing the verb because he could select the appropriate answer in his ZPD created by his classmates and himself. In addition, a state of intersubjectivity was constituted in the ZPD for facilitating his centripetal force to regulate Wong's appropriation for the best purpose in the game. It is fair to say that there were three interconnected concepts to be enacted conjointly during Wong's internalization process moving from inter- to intra-psychological functions: ZPD, a state of intersubjectivity, and centripetal force. Wong's answer revealed the nature of mental functioning mediated by language used in the social interaction in the specific sociocultural settings.

5. Discussion and implication for teaching

To summarize the argument of visualized internalization process, this language game provides important insights into the Vygotskian notion of the socio-genetic orientation of human mental functioning. Given key words and phrases in the game, an individual answerer tries to guess the correct verb shown to her or his teammates. Their verbal exchanges constitute ZPD for the answerer (novice), where the teammates as more potent peers deploy a wide array of assistance to foster the advances in the verbal development. It is not always easy, however, for the answerer to guess the word because the answerer has her or his multi-voiced potentials to go through internalization process. As manifested in the case of guessing the verb, "to interview", the individual learner's mental functioning does not evolve harmoniously in the cognitive development with other members'

expectations in the game. According to Chaiklin (2003), what is "critical to Vygotskian sociocultural theory is the notion that learners do need to engage in some sort of cognitive struggle" (Johnson & Golombek, 2011, p. 7).

Grounded in the specifics of the concrete situation of the language game, however, a state of intersubjectivity functions as a cognitive framework to regulate and externalize the learner's internalization process. It is envisioned that an individual learner (Wong) went through his internalization process to come up with the correct answer helped by the seemingly unrelated key phrase, "an oral test next week". This case reveals an important implication for any attempt to visualize a learner's internalization process, illustrating what actually functions during the process to select the appropriate answer to fit for the best purpose in the specific sociocultural settings.

In addition to the state of intersubjectivity, Bakhtin's concept of centripetal forces helps to facilitate cognitive development. The underlying forces generate unified cognition to establish the common goal shared by the participants. Ontological explanation supports the claim that the participants in the game take parts in achieving the goal to win the game. It is reasonable to assume that the centripetal forces provided a glimpse of internalization process.

It is essential to note that learning emerges as the result of interaction. During the interaction, an individual learner goes through her or his internalization process, which occurs in its specific inter-subjective framework located in the cognitive distance, ZPD. For enhancing the learner's understanding, therefore, teacher socialization with the learners plays an important role in constituting the intersubjectivity in classrooms. It should be

conducted with a goal in mind, which to facilitate the learner's internalization. Teachers should embrace the notion that learning is a fundamentally social process.

Note

(1) These are the actual key words and phrases which were provided in the language game in the level-3 (intermediate) of spoken Japanese class at Kansai Gaidai University in the autumn semester, 2012.

(2) The specific verbal exchange happened in a review session of level-3 spoken Japanese class at Kansai Gaidai University in the autumn semester, 2012.

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