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Psycho-linguistic and socio-cultural approaches to language learning: A never ending debate

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Abstract

This paper critically examines psycholinguistic and socio-cultural approaches for language learning. It provides a thorough discussion of the ontological positions where they originate, the methods they use, some relevant work under each perspective and most importantly criticisms that each perspective faces. The paper concludes that no approach is better than the other and advocates for collaboration projects nurtured from both perspectives.

Key words: SLA, psycholinguistics approaches to language learning, socio-cultural theories.

Resumen

Este trabajo examina críticamente los enfoques psico-lingüísticos y socioculturales usados en la adquisición de segundas lenguas. El trabajo provee al lector con una descripción completa de la posición ontológica donde estos se originan, los métodos que utilizan, investigaciones que los nutren, y críticas que cada uno recibe. El trabajo concluye invitando a investigadores a iniciar estudios que combinen los dos enfoques.

Palabras clave: Adquisición de segundas lenguas, enfoques psico-lingüísticos, enfoque socio-cultural.

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Introduction

The understanding of second language acquisition (SLA) processes has usually been approached using either a psycholinguistic or a socio-cultural perspective. The discussion of these perspectives, frequently seen as conflicting and exclusive instead of complementary (Larsen-Freeman, 2002; Zuelenger and Miller, 2006), is important in SLA research because the choice of one perspective over the other prompts research agendas with unique features. A particular view of how second languages are acquired frame the research questions to be posited, the methodology to be employed and the conclusions to be reached.

This paper starts by critically comparing both approaches to language learning (LL). Then, it provides a brief account of research conducted under each approach, criticisms drawn upon them and how such criticisms have been addressed. Towards the end of the paper, it is suggested that no approach is better than the other; instead that research resulting from collaboration of scholars ascribed to each approach may provide a sounder picture of SLA processes.

The debate

There are some marked differences between psycholinguistic¹ and socio-cultural approaches to LL. Researchers from both traditions have attempted to explicate, defend, and criticize such differences in a number of articles published in scholarly journals (Atkinson, 2002; Foster and Ohta, 2005; Firth and Wagner, 1997; Long, 1997; Gass, 1998; Zuengler and Miller, 2006), edited volumes (Lantolf, 2000, Mitchell and Miles, 2004), and books (Gass, 1997; Lantolf and Thorne, 2006; Long, 2007). However, it remains a topic of heated debate in the SLA arena because they originate from different ontological positions (Larsen & Freeman, 2002).

Conceptually, the relationship between thinking and speaking, the view of interaction, and the understanding of learning differ greatly. Unlike psycholinguistic approaches that view language and thought as related but

1 I am aware that psycholinguistic approaches comprise various perspectives: universal grammar (Chomsky, Mackey) input processing (VanPatten, 1985), cognitivists (Skehan, 1998). However, whenever I refer to them, I am mostly referring to the work by the so-called interactionist and the work of researchers such as Gass, 1997, 2000; Long, 1996, 2007, Pica, 1994, etc.



completely independent phenomena, socio-cultural approaches see language and thought as highly interwoven processes (Lightbown & Spada, 1999) in which “publicly derived speech completes privately initiated thought” (Lantolf, 2000:7). Language mediates thinking and it is through language, either spoken or written, that people gain control over their mental processes. In turn, thought can not be explained without taking language into account (Lantolf and Thorne, 2006).

Although both approaches view interaction as an essential component for language development, it plays a distinctive role. In the psycholinguistic approach, interaction helps learners activate the individual internal cognitive processes that allow them to access the comprehensible input they need to further advance in the acquisition of the L2 (Long, 1996; Gass, 1997). In the socio-cultural approach, social interaction allows interlocutors to organize their cognitive processes that assist them in the co-construction of knowledge about the second language (Lantolf, 2000).

When it comes to learning, for socio-cultural theorists learning is viewed as first inter-mental, then intra-mental (Mitchell and Miles, 2004). That is, learning occurs first between people, then within the individual. Therefore, involvement in frequent and significant social activities with more competent language users is essential for learning to happen. On the other hand, learning in the psycholinguistic tradition is viewed as a cognitive individual process happening within the individual and then, eventually, if at all, moves to the social dimension. This differentiation of learning is also extrapolated to the view of language learning. For psycholinguists such as Long (1996) exposure to comprehensible input and negative feedback leads to language learning. For socio-culturally oriented theorists, such as Swain and Lapkin (1998) language learning is a collaborative dialogue, hence, it does not happen outside performance, but in performance.

The conceptual distinction between the two approaches also leads to differences on the objects of inquiry. Psycholinguistic approaches tend to examine LL based on the increase in comprehension, the correct use of grammar as compared to native speaker's standards (Gass, 1997), the importance of memory and attention (Schmitt, 2000), the type of tasks that prompt interactional modifications (Long, 1996; Gass, 1997), and how interaction facilitates L2 development (Gass and Mackey, 2006), among



others. Researchers in socio-cultural approaches, on the other hand, have been interested in understanding how language mediates knowledge and how knowledge is co-constructed as a result of interaction. Thus, patterns of student's interaction (Storch, 2002), mediational processes between teachers and students (Donato, 2000), and collaborative dialogue (Swain, 2000) are some of the many topics examined.

Given the nature of topics examined, data collection and analysis follow different patterns as well. In psycholinguistic approaches, there is a tendency to collect and analyse data following more positivistic approaches (Firth and Wagner, 1997). That is, data is collected under controlled and rigorous settings that resemble research conducted in laboratories. Analyses are performed using statistical measures that serve to reject or confirm the hypothesis established prior to the research (Atkinson, 2002). In contrast, in the socio-cultural tradition, data is obtained mostly through naturalistic-oriented methods. That is, learners' interactions are, in general, observed in their natural language settings, imposition of pre-established categories is discouraged (instead, themes for analysis are expected to emerge from the data). Although quantification is sometimes used, it serves to provide initial insights of the data (Foster and Ohta, 2005). Data is the result of language production. In socio cultural approaches, data is contextualized. Gestures, hesitations, false starts and back channeling clues *are* the data (Lantolf, 2002).

After differences between the two approaches have been pointed to, I turn to discuss relevant research under each approach. A word of caution is needed here because not all the studies reported are examined here only well known studies.

Psycholinguistic approaches

Psycholinguistic approaches to LL, mainly interactionists, conceive LL as a cognitive and individual process in which knowledge is constructed as the learner is (1) exposed to comprehensible input (Krashen, 1985), (2) is given opportunities to both, negotiate meaning (Gass, 1997; Long, 1996 & Pica, 1994) and (3) receive negative feedback (Long, 1996). Psycholinguistic approaches to LL tend to agree that a learner needs to be exposed to input. However, there is no agreement on the type of input needed and much less, how such input is processed in order to become acquired (Gass, 1997). One of



the most widely studied theories of input is Krashen's input hypothesis (1985). This theory predicts the likelihood for a learner to acquire a language when he/she is exposed to comprehensible input. Thus, to increase the chances for input comprehension, input should be just one step beyond the learner's current stage of linguistic competence. Although numerous SLA scholars have favoured and/or contradicted Krashen's model of SLA based on arguments such as flaws in the theory and lack of empirical support data (see Gass, 1997), Long (1983) revisited Krashen's input hypothesis to explore forms in which input comprehensibility can be increased and proposed the interaction hypothesis (IH).

The interaction hypothesis asserts that besides the input the learner is exposed to, manipulation of such input through interaction is what forms the basis for language development. According to Long (as cited in Gass, 1997) input comprehensibility increases as learners interact and use different type of interactional modifications (comprehension checks, confirmation checks, and clarification requests) to overcome communication breakdowns.

Long's work sparked interest among the so-called interactionist who turned their research agendas to examine how speakers modify their speech and interaction patterns to allow their interlocutors to participate, understand, and keep the flow of conversations. Long's initial work was criticized by SLA scholars, mostly outside of the interactionist arena, who believed that he did not provide clear-cut definitions and proper examples for each type of modification (Firth and Wagner, 1997). Despite the criticisms, a wealth of research was and is still being conducted using Long's (1996) refined version of the interaction hypothesis which suggests that in addition to negotiation of meaning (NfM), learners need to receive negative feedback. In IH-based research, emphasis was initially placed to identify the type of task and learners variables that seem to favour LL (see Pica, 1993; Pica, Kang and Sauro, 2006), the extent to which interactions/negotiations facilitate interactions (Locky, 1994), and the features of interactional modifications that can potentially favour language learning (Mackey and Gass, 2006).

Mackey and Gass (2006) suggest that research has evolved to ask how interaction facilitates development instead of examining if interaction plays a role in language development. Thus, scholars are examining negative feedback and the explicit/implicit correction distinction.



Criticisms

Some of the criticisms to the psycholinguistic approach focus on the conception of language, the types of analysis used, and the focus of inquiry. Foster and Ohta (2005) raised two concerns for identification of instances of NfM from the cognitive perspective.

As NfM instances are produced as a result of communication breakdowns, production of NfM is viewed as a demotivating endeavour because learners in a way need to admit failure in producing accurate language in order to use interactional modifications. Firth and Wagner (1997) argue that in addition to studies of perceiving failures and troubles, that is, NfM based, studies of communicative success (language use) may provide new insights into the understanding of SLA. They also point to the need for more rigorous definitions of NfM that allows researchers separate signals of communication problems from signals of interest and encouragement.

Foster and Ohta (2005) pointed to research (i.e. Pica, 1992) that suggests that NfM is mostly triggered as a result of lexical problems. This, in their view, posits a problem for the understanding of how language acquisition takes places because a language is not only made up of lexical items but grammar, sounds, semiotic signs, etc. They argue that given the plethora of themes that may derive from interactions among learners, quantification and high control of variables in cognitive oriented studies offer an incomplete picture of LL. At this respect Atkinson (2002) notes that “language never occurs apart from a rich set of situational/socio-cultural/historical/existential correlates and to separate it out artificially is to denature it” (p. 527).

Since LL is viewed as a social phenomenon, analysis conducted under the psycholinguistic umbrella have been criticized by socio-cultural theorists, who propose that data should be collected and analysed following naturalistic approaches for research (Mitchell and Milles, 2004) and in natural language settings. Firth and Wagner (1997), for instance, argue that there is no need to isolate or take learners away from their regular LL settings and that better insights about language development can be obtained if learners are simply observed in the classrooms. Gass, Mackey and Ross-Feldman (2005) addressed this criticism and partially rejected Firth and Wagner’s claim. In their study, seventy-four students learning Spanish as a foreign language were observed as they worked in dyads to complete 3 different communicative activities in



classroom and laboratory settings. Gass et al (2005) found few differences in interactional patterns between the settings. Interestingly, they found that interactional patterns were more associated to the type of task that the learners carried out than to setting in which these tasks were performed.

The analysis of the data, mostly numerical in nature, has also generated some discomfort among socio-cultural theorists. In their view it is very complex to represent instances of language production just with numbers or figures because numbers can not account for all the inherent features of interaction (gestures, signs, private speech, etc), specially, if the focus of analysis is on spoken language (Firth & Wagner, 1997; Lantolf, 2000). This position of socio-cultural theorist can be also questioned because the method of analysis is highly related to the questions posited. The decision about employing one type of analysis entirely depends on the focus of research. There are some research questions that call for the use of statistical analysis and other for using observations. If the interest is on quantities and no qualities of interaction, then the centre of attention should be placed on measures that provide accuracy, but if the research is to measure quality and patterns of interaction, then qualitative methods will be more concomitant with the research objectives.

This concern has been partially addressed and nowadays more and more research under the cognitive tradition is exploring new methods for data collection. They [researchers] “adapt new methodologies, look for different tools of analysis and create new modes of testing L2 knowledge in order to obtain a more detailed and nuanced picture of the mechanisms of the interaction-learning relationship” (Mackey and Gass, 2006: 172).

Another shortcoming pointed by socio-cultural theorist is that as students’ voice (explanations about why they used certain expression and not other) tend not to be included in analysis under the psycholinguistic approach, what the researcher may interpret as a clarification request could be easily used by a participant to signal engagement in a conversation (Foster and Ohta, 2005). Although a learner’s voice is essential to have a more rounded picture of a subject matter, in this case language learning, it is also necessary to acknowledge that most learners are not familiar with naturalistically-oriented data collection techniques (i.e. think-aloud protocols, stimulated recalls, etc). Moreover, learners may not have the meta-language to self-reflect on the processes they followed. There is always an inherent risk that participants



report what the researchers want to hear, if proper training is not provided prior to data collection.

Socio-cultural approaches

Studies in SLA from the socio-cultural perspective are based on the work of Vigotsky (1978) in which three main themes are identified: mediation, social learning and genetic analysis. Mediation describes how tools and signs transform human action and influence the way people perceive the world. In this sense, language is perceived as the most powerful mediational tool because through the use of words different things can be accomplished (Lantolf, 2000). Social learning is explained by the Zone of Proximal Development (ZPD) metaphor. The ZPD is defined as “the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers” (as cited in Lantolf and Thorne, 2005). The last theme identified in the Vigotskian framework, genetic analysis, underscores the importance of looking for causes, genesis or origins and histories to understand different aspects of mental functioning.

Lantolf and Thorne (2006) suggest that in SLA the use of the L1 as a mediating tool has been examined to explicate how L1 use allows learners to work at higher levels of understanding without the restrictions that the use of only the L2 encompasses. They point to some findings in Swain and Lapkin (2000) study in which they found that the use of the L1 use during a jigsaw and a dicto-gloss task enhanced the learners understanding of what they were required to do and the task contents, (For more research conducted on this area, see Storch & Wigglesworth, 2003).

Language development resulting from the interaction of expert-novice (also known as the scaffolding metaphor) has also been an interest of research in the socio-cultural theory. Scaffolding refers to the assistance provided by a more capable learner to his interlocutor and that enables him to do activities he would not have been able to do without such assistance (Lantolf & Thorne, 2006). In Ohta (2000), she described how two learners of Japanese, Hal and Becky, engaged in collaborative dialogue across a role play, a translation and an interview task. Specifically, she observed the mechanisms of assistance used by participants, features of appropriate assistance, and processes that lead to



the internalization of the new structures. Learners were video-taped as they offered (Hal) and received help (Becky) and reverse their roles throughout the tasks. Based on the analysis of the interactions, Ohta found that learners made “impressive gains in their ability to construct the sentences” (p.61) and, most importantly, that such gains were also present in the follow-up communicative tasks. Becky was able not only to complete the tasks with Bill’s assistance, but also became more consistent in using the structure. Bill in turn, fine-tuned his knowledge about the use of desiderative constructions in Japanese.

The value of this study was not only to demonstrate that learners made gains in language as a result of interaction (which would have been an interpretation embraced by psycholinguists), but most importantly that analysis of learner activity during task implementation are essential to understand the relationship between tasks and how tasks are instantiated by particular learners (Ohta, 2000; 76).

In addition to the number of studies that have built upon Ohta (2000) study and discuss how learners can be guided towards their ZPD researchers’ attention has turned to examined the value of collaboration and group work (Lantolf and Thorne, 2006). The same authors note that SLA research using activity theory (AT) is modest in volume but has made significant contributions to fields such as SLA, applied linguistics and to some extent, pedagogy.

In the state of art review of socio-cultural theory and L2, Lantolf (2006) considers the implications of mediation and internalizations for L2 development. He notes that attention should be placed to the mediational function of L2 private speech and the synchronization of gestures and speech, because they seem to offer additional cues to understanding how languages are acquired. Regarding internalization, he argues that based on studies of child development, internalization of L2 features takes place through imitation, but that this imitation is significant, intentional and “potentially transformative process rather than rote mimicking” (p.67) and that regardless of age, L2 learners rely on imitation in their private speech when they are exposed to new linguistic affordances.

Lantolf (2006) suggests that the union of socio-cultural theory and cognitive linguistics may help to better explain how language learners internalize and develop the capacity to develop conceptual and associated linguistic knowledge. He also suggests that further research could investigate



if there is a connection between the linguistic features of the private speech of L2 learners and the linguistic features of interaction occurring between L2 speakers.

Criticisms

Cognitive researchers affirm that the focus of examination of socio-cultural theorists is in language use rather than acquisition. Although they (cognitivists) acknowledge the social dimension of language, they do not see any problem with research that views language as “an abstract entity that resides in the individual” (Gass, 1988:88) and question how research geared towards sociolinguistics will have something to add to research that focuses on ‘pure acquisition’ (Long, 2007). I second Firth and Wagner’s (1998) position when they argue that languages can not be acquired without being used. My experience as a language learner tells me that in order to integrate a new lexical item/structure to my lexicon and to be able to retrieve it easily I need to use the word/expression in various contexts. It is only after repeated usage, not only exposure, when I can affirm to have successfully acquired such vocabulary item or structure.

Another concern raised by cognitivists deals with aspects such as representativeness, verifiability, and relevance of results (Long, 2007). In their view, it is very difficult to build upon a true theory of SLA if hypothesis are tested in local, limited settings constrained by the lack of subjects and supported only by rich descriptions. They also worry that not carefully planned naturalistic research jeopardize the construct validity in SLA research (Long, 1997). Although I agree with Long’s concern, I believe that construct validity in SLA research, as in any other type of research, can be in jeopardy regardless of the object of inquiry and the approach used to analyse data, namely naturalistic or positivistic.

Despite the criticism, research under the socio-cultural approach has shown a steadily growth in the field as evidenced by the number of articles and books published on the topic. Novice researchers and some old ones are beginning to embrace socio-cultural approaches as a new alternative to understand SLA processes. Some of the methodologies (i.e. descriptions, students’ voice, etc), mostly associated to socio-cultural theories, have also found their way in cognitive research and are offering a more rounded picture of L2 learning.



It is interesting to see how after 11 years that Firth and Wagner sparked off the socio-cultural vs. cognitive debate and sound studies using socio-cultural theories have been reported, Long (2007) still maintains his initial position to defend the supremacy of cognitive approaches to language learning. In his most recent book, "Problems in SLA", he does not even acknowledge the existence of socio-cultural approaches as an alternative to examine SLA. Instead he dedicates a complete chapter entitled "Breaking the Siege" in which he describes and responds to accusations made against SLA research. Just the title of the section where he addresses the accusations steaming from socio-cultural theorists, "The sociolinguistic naiveté", let the reader perceive his discomfort for the involvement of researchers outside the SLA arena who criticize the heavy traditional cognitive orientation in SLA research. Throughout the chapter transpires his annoyance to nearly everything that dares to criticize the work that has been conducted so far, under the cognitive umbrella, even the work of some post-modernists. Long (2007) also questions how people with little or not formal training in SLA or publication record and with, in his view, a minimal familiarity with the SLA literature are allowed to publish in scholarly journals. He blames the editors of such journals and, most importantly, the procedures (i.e. marketing orientation, behind doors, people from other disciplines) used to appoint such editors.

Even today, Firth and Wagner (1998) words echo in the field: SLA seems to be the property of some privileged scholars and no intruders are allowed to join in. Long (2007) is still advocating for SLA to be a hermetic field accessible only to 'experts' ascribed to the cognitive tradition giving little or no opportunities for new knowledge to emerge. Questioning and well-founded criticism are essential in the construction of knowledge. Moreover, researchers outside, but related to the SLA field (i.e. anthropologists, sociolinguistics, etc) can make valuable contributions to the understanding of SLA because they see the object of inquiry from a somewhat different perspective that adds insights one never thought of. Foster and Ohta (2005), for instance, encourage researchers to explore language learning from theoretical and methodological approaches different from their own and affirm that "multi-perspective analysis of data should be, at the very least, thought provoking" (p.404).

Conclusion

It is somehow palpable that Firth and Wagner criticisms have had some impact in how research under the cognitive umbrella is being conducted. Most of the



criticisms have been addressed and new avenues for research have emerged. The cognitive vs. socio-cultural debate is a never ending matter because, as Larsen-Freeman (2002) pointed to, they originate from different ontological positions; hence, their views of language, thought, learning, LL, and interaction differ greatly.

The new attempts in which some cognitivists and socio-cultural researchers have opened up to try new methodologies and collaborate in joint research (i.e. Foster and Ohta, 2005) may stimulate the field and more complete insights of L2 learning could be obtained as a result of such collaboration.

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