A Sociocultural Account of the Role of Imitation in Instructed Second Language Learning

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Abstract

Interaction is an important theme in current discussions of second language acquisition, second language pedagogy, and classroom second language learning. It is widely acknowledged in SLA that interaction is an essential factor for acquisition; equally, interaction is a cornerstone of second language pedagogy focused on developing learners' communicative competence. Recent advancements have been made in SLA research as well as second language pedagogy in the area of interaction, with sociocultural theory based on several key constructs of Vygotsky's providing new perspectives on the processes that are ignited when learners are steeped in interactive learning. This study reports on classroom investigations into these interactive processes that provide evidence for language learning. Of specific interest is the phenomenon of imitation, as defined in terms drawn from sociocultural theory, and the pedagogic practices which provide the stage for imitation to occur, and thus support second language development.

Key words: Classroom interaction, sociocultural theory, zone of proximal development, internalization, imitation, models, language development in context, second language pedagogy

1 Orientation

The role of interaction in second language acquisition (SLA) has received considerable interest since the early 1980s (Long, 1983; 1985). This interest has developed into a branch of SLA that foregrounds the input, provided by an interlocutor, which is comprehensible to the learner, and the output of the learner which is subject to modifications during interaction involving negotiations of meaning and interactional adjustments with the interlocutor. Referred to by Block (2003) as input-interaction-output (IIO), this area of SLA has provided the impetus

for research aimed at securing greater understandings of the mental processes that come into play during interactions with a more competent interlocutor (Long 1996).

The important insights these studies have provided have led to a range of practical applications of IIO theory to second language teaching. Cook (1999) argues for the usefulness of doing so, provided that concerns around validity, ethics and generalizability of the research in question are addressed, proposing that since "all aspects of language and language acquisition are covered somewhere in SLA research" (1999: 280), there should be no shortage of ideas for L2 pedagogy. Ellis (1997) cautions that a bridging of the two separate discourses of SLA and language pedagogy is required, which introduces a third discourse, one that recontextualizes SLA knowledge into the language pedagogy domain. This issue is set to deepen, Kramsch (1995: 4) warns, as the 'broadened intellectual agenda' resulting from new SLA theories makes it more challenging to negotiate the various discourses. Lightbown's (2000) generalizations of SLA research, focused on individual propensities for acquisition, are to be treated with apprehension as they are presented in the discourse of SLA and retain a heavy theoretical orientation, with the admonition 'to apply with caution', originally made by Hatch (1979). Chappell (2010) reviews much of the interaction literature and argues that since the bulk of the interaction studies were based on analyzing group tasks which were set up for the purpose of research rather than intact classrooms, a new perspective on SLA research for pedagogical purposes is needed. Indeed, as several chapters in Atkinson (2011) indicate, Chappell is not alone in this endeavor (cf. especially Lantolf 2011 and Kasper & Wagner 2011).

This paper contributes to the alternative approaches to SLA which privilege classroom contexts as sites rich in opportunities to study second language acquisition, bridging the discourses between SLA and language pedagogy. Just as IIO research privileges the interactions between the learner and an interlocutor, the study reported here is grounded in a theory of language development whose point of departure is social interaction between learners and others. The paper reports on findings from a larger study on the role of group work in the second language

curriculum (Chappell 2010). The focus here is on investigating the processes that occur during classroom second language learning activities when the skills and understandings constructed in the social interactions between the learners and the teacher become skills and understandings acquired by the learner. Of particular interest is the role of imitation in classroom second language learning and the pedagogic affordances provided by teacher modeling, seen through the eyes of the theoretical approach outlined below. This approach, named Language Development in Context, or LDC (Chappell 2010), provides a fundamentally different perspective on language learning and development. These differences are outlined briefly in the following section.

2   SLA Boundaries

2.1   Second-Language Acquisition and Interactionist Second-Language Acquisition

The field of second language acquisition research is categorized here as consisting of either mainstream Second Language Acquisition, with the acronym SLA, or Interactionist Second Language Acquisition (ISLA), which consists of the sub-approach of Input-Interaction-Output (IIO) and Language Development in Context (LDC).

Second Language Acquisition (SLA) represents the field as it originally evolved, and acknowledges the contributions made by Chomsky in his claim for an innate human language faculty, in which principles of grammar come naturally to humans irrespective of the language in question, with humans entering the world pre-endowed with a 'language acquisition device' (LAD) (Chomsky 1965). This LAD, Chomsky claims, contains knowledge of linguistic universals and therefore helps language learners discover the rules of grammar of the language. The theoretical basis of 'mainstream' SLA, herein referred to as SLA, draws on cognitive psychology and information processing approaches which privilege the individual

and his / her intrapsychological mental processes. The focus is primarily on syntax, morphology and phonology, or what might be glossed as sentence-level grammar. The metaphor of acquisition - taking something in - is in prevalent use in SLA.

Interactive Second Language Acquisition (ISLA) is presented here as the approaches to second language acquisition research which, in varying ways, privilege the interaction between a learner and the learning environment. In this paper, ISLA is divided into two main fields of knowledge; IIO privileges conversational interactions between the learner and other speakers of the language, including other learners, native speaking interlocutors, and teachers, while LDC privileges a much broader notion of interaction with the classroom context which includes social, cultural and historical dimensions.

The term Input-Interaction-Output was coined by Block (2003) to represent the theory which holds an important place in language learners' conversational interactions with others, especially other learners, but also native speakers. Theoretical contributions from Krashen (1985), Long (1985), Long & Porter (1985), Gass & Madden (1985), Gass & Varonis (1985), Pica (1987), and Pica & Doughty (1986) were particularly salient for the genesis of IIO. As Table 1 indicates, the focus is on both the interactions with occur with the learner and his / her interlocutor, as well as the intrapsychological mental processes which are affected by the interaction. Particularly important to IIO are the notions of negotiation of meaning, modified input, modified output, and the exchange of spoken utterances. IIO retains much of the terminology of SLA, and, like SLA, draws heavily on cognitive psychology and information processing, however it has extended the notion of competence to include not only competence in linguistic rules, but in situationally meaningful and appropriate language use. Like SLA, the acquisition metaphor is in prevalent use in IIO, and while selected aspects of the context of conversational interaction are afforded a place, the focus remains well and truly on individual mental functioning.

Language Development in Context (LDC) represents a new area for second language acquisition research whose key focus is on both the cognitive processes which develop between the learners and the teacher and learners during the activity of second language learning, and the cognitive processes which develop for individual learners. Two general maxims are in operation here; firstly, the motive that humans use tools to mediate their actions in order to fulfill a need or motive, and secondly, the motive that social interaction between humans requires a tool for communication to co-ordinate collective effort (Leontiev 2005). The most fundamental of these tools is language, and the dialectical relationship between language and human activity is what enables an explicitness about language which is central to LDC. Unlike SLA and IIO, for LDC, language is not merely a rule-bound system to be acquired; it is itself a tool for cognitive activity and mental development.

2.2 Language Development in Context: the General Law of Genetic Development and the Zone of Proximal Development

LDC is informed by Vygotskian developmental theory, in which a general genetic law of development is postulated. The law states that higher psychological functions are formed as a result of sociocultural influences. They are "first formed in a collective in the form of relations among [people]", after which they become "psychological function[s] of the personality" (Vygotsky1989: 61).

Fundamental to this law of development is the proposition that social interaction drives cognitive development. Vygotsky's sociogenetic law of development states:

> [A]ny function in the child's cultural development appears on stage twice, that is, on two planes. It firstly appears on the social plane and then on a psychological plane. Firstly among people as an inter-psychological category and then within the child as an intra-psychological category. This is equally true with regard to voluntary attention, logical memory, the formation of concepts and the development of volition ... Social relations or relations among people genetically underlie all higher functions and their relationships. (Vygotsky 1983:145.)

Thus, higher mental functions, such as abstract reasoning, logical memory, voluntary attention, planning and decision-making, and of course, language (Gindis 1999), which develop to constitute an individual's psychological character, appear first as social relations between people. These mental functions are then transformed, or they shift to an individual's "intra-psychological self-organization system" (Valsiner 2000: 40). It is this shift which represents the central concern of this paper, and which, it is argued, when understood both theoretically and practically, is an important informant for second language pedagogy involving classroom interaction and small groups. This understanding should go some distance in answering the pedagogic question of how learning might occur during small group activity in the classroom. It should also help researchers within the IIO domain with the challenge so eloquently expressed by Gass, Mackey & Pica:

> [D]espite the large number of studies dealing with input and interaction in SLA ... the precise role of interaction in actual development and internalization of L2 knowledge has continued to challenge researchers. (Gass, Mackey & Pica 1998: 299)

For Vygotsky, a way of conceptualising this shift, which is generally known as the process whereby cultural practices such as language are internalized, is to study processes in the zone of proximal development (ZPD). The ZPD, a well-known, yet largely misunderstood construct within education (Chaiklin 2003) is defined as:

> [t]he distance between the actual developmental level as determined by individual problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers. (Vygotsky 1978: 86)

Human learning through social interaction occurs in zones of proximal development. The creation of a ZPD stimulates internal developmental processes that operate exclusively during interactions with others (Vygotsky 1978). These interpersonal processes are said to become intrapersonal through a process of internalisation. In this sense, internalisation is a process involving the transformation of the higher mental function representing a function which is carried out in the social interactions between two or more people into the higher mental function representing a function which is carried out as intermental phenomena (Vygotsky 1997). In terms relevant

for second language learning, language brought about in social interaction transforms into language for oneself, though even then, it always retains its social base.

Second language acquisition research involving Vygotsky's theory of mediated learning in the ZPD has provided novel insights into the dynamics of interaction between learners and also between learners and an expert other (albeit, not the teacher). Donato (1994; see below for further discussion) investigated the collaborations between learners when working on small group tasks and revealed instances of the co-construction of linguistic knowledge required for task completion. De Guerrero & Villamill (2000), Storch (2000, 2002) and Swain & Lapkin (2002) contribute to understandings of the complex phenomena which reveal themselves during small group work through their investigations of the dynamics of the interactions between learners during language-focused tasks. Aljaafreh & Lantolf (1994) conducted a study into the corrective feedback given by an expert other to a learner in the ZPD, revealing several important features of the ZPD in L2 learning, including supporting the assertion of Vygotsky's that language development is not a linear process, but rather cyclical and rhythmic (Vygotsky 1935, cited in van der Veer & Valsiner 1991). Nassaji & Swain (2000), in a similar study, provide further evidence that negotiated assistance in the ZPD is more effective than random corrective feedback. Ohta (2000) provides further evidence of the ability of learners to support each other's language learning during small group work, as well as revealing the phenomenon of private speech, which is self - rather than other-directed speech during instructional activity.

As Chappell (2010) argues, these studies, together with others which investigate SLA from a sociocultural perspective, are pedagogically informative vis-a-vis managing the classroom learning context. However, they do not account for the role of the teacher and the instructional materials, and therefore omit important parts of the context which are potential sources of influence on instructed SLA. This paper is, thus, concerned with addressing these elisions through developing a perspective on instructed second language learning involving the ZPD, imitation, and modeling

during interactions between learners and between learners and the teacher. This perspective is further developed in the following sections.

3   Unpacking the Process of Internalisation

3.1 The Fundamental Role of Imitation

Notions of internalisation associated with socially-based theories of learning place profound importance on a particular conception of imitation. Indeed, Vygotsky's (1997) view is that it is a fundamental contributing factor for the development of higher forms of human behavior. He applies the term in a descriptive manner to account for the constructive work which occurs in the ZPD between the learner and the expert other (such as the teacher) in instructional settings:

> [A] central feature for the psychological study of instruction is the analysis of the child's potential to raise himself [sic] to a higher intellectual level of development through collaboration to move from what he has to what he does not have through imitation. (Vygotsky 1988: 210)

In this sense, then, imitation is focused on the creation of novelty rather than on reproduction. Imitation occurs in situations in which a learner is able to collaborate in social interaction with an expert around specific tasks in which he or she would be incapable of performing alone. This is enabled due to the presence of developing cognitive ability; that is, there is a partial ability to perform the task alone, rather than no ability at all:

> The child can enter into imitation through intellectual actions more or less far beyond what he is capable of in independent mental and purposeful actions or intellectual operations. (Vygotsky 1997: 95)

Imitation is the bridge for internalisation, a notion brought forth in Vygotsky's distinction between learning and development. Imitation plays a major role in instructional settings in the sense that how a learner performs a given task in interacting with a more knowledgeable person in the present is what that learner

can do alone in a future time, unassisted, or perhaps partially assisted. As Vygotsky notes:

> [T]he only good kind of instruction is that which marches ahead of development and leads it; it must be aimed not so much at the ripe as the ripening functions ... instruction must be oriented toward the future, not the past. (Vygotsky, 1986, pp. 188-9).

3.2 J.M. Baldwin's Simple and Persistent Imitation

Despite its reproductive behaviorist and cognitive heritage, imitation is a complex phenomenon. Owing to his life being cut short by illness, it is also one of the lesser developed of Vygotsky's theoretical constructs (Chaiklin 2003, Robbins 2003, Tudge & Winterhoff 1993). Fortunately, a predecessor of Vygotsky's working in the same sociogenetic tradition, J.M. Baldwin (1906), developed a theory of child development with an articulate and original account of the role of imitation (Valsiner and van der Veer (2000), and which allows for an elaboration of Vygotsky's ideas in this area. Indeed, Vygotsky's claims for internalisation (above) are strikingly similar to those of Baldwin's:

> [Imitation] enables me to pass from my experience of what you are, to an interpretation of what I am; and then from this fuller sense of what I am, back to a fuller knowledge of what you are. (Baldwin 1906: 323)

Like Vygotsky, Baldwin (1894) sees imitation as a central constituent of internalisation, in the sense that cooperative interactions become reconstructed by learners and made their own. Baldwin (1906: 355) conceived of imitation as having two forms - simple imitation and persistent imitation. Simple imitation involves imitation of (or attempts at copying) a model with no attempts at producing an improved or different version. This form of imitation is not future-oriented, it is circular, and it is incapable of producing novelty. Baldwin cites the example of a child imitating a word incorrectly and repeating that error progressively into the future. In SLA terms, this can be compared to error fossilization, which is

considered a 'permanent' cessation of the development of a linguistic structure (Han & Odlin 2006).

This notion of imitation is more likely to be found in the everyday use of the term, with replication, in full or in part (and, thus, only partially accurate), of an external model being found in a learner's interlanguage. It is reproductive rather than productive, thus, it is inconsequential for the development of higher mental functions. This is likely to be the more general notion of imitation which Vygotsky was mindful to distinguish from the concept outlined here, and which he argued is more common in non-human primates, whose imitative actions are limited to their existing independent performance levels, and who, he argued, will never go beyond zones of actual development.

Persistent imitation, on the other hand, has much greater relevance and is a fundamental requirement for internalisation in a zone of proximal development. Persistent imitation introduces volition and effort into the learning process. It is directed at achieving goals, and it is, thus, intentional. Further, it involves experimentation which deliberately alters the model provided by the expert interactant through persistent and varied versions. Persistent imitation often reveals itself in private speech, which is a form of speech made external, but which has an internal intent, and whose function is to regulate a speakers' own psychological functions. Whilst private speech may be audible, there is no communicative intent on the part of the speaker to any potential interlocutor; the function is self-regulatory, as found by Ohta (2000). Baldwin's persistent imitation introduces active construction into the hitherto reproductive notion of simple imitation. In his own words:

> Imitation to the intelligent and earnest imitator is never slavish, never mere repetition; it is, on the contrary, a means for further ends, a method of absorbing what is present in others and of making it over in forms peculiar to one's own temper and valuable to one's own genius. (Baldwin 1906: 22).

Persistent imitation, foregrounding the imitator's self-directed efforts to modify the original models of others through experimentation, is oriented toward future performance when the support of experts is not at hand. Thus, it is fundamental to internalisation in the zone of proximal development.

3.3 Future Orientation

What, then, is the source of the future orientation which is so crucial for persistent imitation in the ZPD? Vygotsky's answer lies in the cultural aspect of his cultural-historical theory. He argues that in the development of higher psychological functions, there exists an ideal form which is present at the very beginning, yet reveals itself at the end of development. As Zinchenko (1996, cited in Veresov, 2004, p. 9) claims:

> 'the ideal form can be defined as culture, which the subject finds at birth … In cultural - historical psychology, development can be characterized as a drama played out concerning interaction of real and ideal forms, their transformations and transitions of one in another...'.

Vygotsky (1998) explains the unique nature of culture as being the source rather than the circumstance of development. Thus, during the process of internalisation in a ZPD, when persistent imitation is at work, learners are involved in a situation constituting conflicts between their actual (current) capabilities and those capabilities which they are oriented towards in a learning task as well as those capabilities towards which the learners orient themselves (Schneuwly 1994). This suggests that the source of inspiration for persistent imitation in classroom learning comes from both the pedagogic environment - the task, the teacher's modeling, the learners' peers - as well as the cultural orientation of the learners themselves. It also underscores the importance of observing and understanding second language development within the naturalistic, instructed context.

Indeed, taking a sociogenetic orientation might also underscore the relatively impoverished approach of some ISLA investigations seeking to inform second language pedagogy in which learners are extracted from their natural classroom

settings and required to undergo a sustained exchange of linguistic tokens in order to investigate the impact of one token on the production of another during language acquisition.

3.4 Models and Modeling: Sign and Tool-Mediated Imitation

In Vygotsky's theory, that which connects the social with the individual is known as mediation, which occurs through the use of both signs and tools. Tools are concrete (material) cultural artefacts which act as a means to influence the object of activity, and include such everyday objects as materials the teacher uses to enable his / her acts of teaching. Signs are abstract, symbolic representations which are oriented toward "psychologically influencing behavior ... [they are] a means of internal activity" (Vygotsky 1978: 55). Examples of signs include language, numbers, schemata, charts, and bodily actions. The use of signs as representations of the cultural practices which are the focus of teaching / learning, and which mediate student learning is the key to the internalisation process. The signs of interest in this study are in the form of a model, either as a static representation (e.g. in written form on a whiteboard), or a dynamic representation through modeling an exemplar of a process (e.g. a teacher demonstrating a task with the students prior to task commencement). For second language learning, the nature of the model will most likely be communicative in orientation; that is, the model will be functional in some way in terms of its communicative value for the students.

Bandura (1977, 1986) provides a useful framework for conceptualising the nature of models which act as signs to mediate language learning in the ZPD. His theory of human learning is both informative for those considering Baldwin's and Vygotsky's notions of imitation, and complementary to their quests to develop a sociogenetic account of human learning and development (Tudge & Winterhoff 1993). His theory of modeling to mediate learning in social interaction accords with pedagogical strategies considered effective in many contexts, including second language teaching. Tharp & Gallimore (1988), in their proposals for mainstream school teaching through assisted performance in the ZPD, foreground Bandura's account

of modeling as a crucial element of assistance. They discuss the importance of creating opportunities for the teacher to model activities which can be transformed into cognitive representations for the students in the form of images and verbal symbols. These signs act to mediate students' learning and to guide their future performance. Thus, modeling of socially-based activity should be aimed at creating temporary cognitive representations in the form of semiotic signs which function to mediate the transformation and internalisation of the principles of that activity.

Bandura's concept of modeling allows for a more detailed pedagogical account of sign mediated imitation in the zone of proximal development. Bandura (1977) argues for significant features of the model to be made salient. To achieve this, consideration needs to be given to the attentive state of the learner, the nature of the activity being modeled, and how well structured the social interaction is. Learning is affected by the extent that the learner has not only attended to, but has also accurately perceived the significant features of the model. The activity being modeled needs to represent a meaningful, functional benefit for the learner, and there needs to be an "interpersonal attraction" (Bandura 1977: 24) in the form of affective engagement between the learner and the person providing the model. It is during the process of interactive learning in the ZPD, when the source of imitation has been represented symbolically, that the "law of sensorimotor reaction" (Baldwin 1892; Goldin-Meadow & Beilock 2010) is apparent, and persistent imitation is enabled. Goldin-Meadow & Beilock (2010) suggest that representations of objects are interconnected with the sensorimotor experiences associated with acting on the objects, and these interconnections are directly related to thought. Baldwin suggested a strikingly similar phenomenon 120 years earlier:

> The function of the mind is simply to have a persistent presentation – a suggestion, a "copy". The law of sensori-motor reaction does the rest. The muscles reflect the influence of the central excitement; this creates more excitement, which the muscles again reflect; and so on until, by the law of lavish outlay, which nature so often employs, the requisite muscular combination is secured and persists. (Baldwin 1892: 287)

While beyond the scope of this paper, investigating the links between the social derivations of language learning and development and the internal mechanisms related to language function in the brain is undoubtedly an area that will appreciate in importance for SLA, no matter which theoretical orientation prevails.

To sum up the theoretical tools for investigating instructed second language development within the LDC approach, the unit of analysis is socially mediated, goal-directed learning and teaching activity. The processes to be investigated within this unit of analysis are the interactions between experts and novices (teachers and students) which stimulate persistent imitation, and which, thus, pave the way for the teaching / learning activity to be transformed from the intrapersonal to the interpersonal domain via sign mediation. The key areas of focus for the investigation are language-in-interaction, and the models and modeling which enable imitation.

4 Persistent Imitation in the Language Classroom

4.1 Whole-Class Talk

A relatively straightforward example of persistent imitation is provided below, which surfaced during a group discussion activity involving one small group of four students reporting back to the teacher and the rest of the class. The discussion activity for students was to imagine a holiday which they would like to take in the near future to relieve the stress of work and study. The group decided to plan the holiday of one student (referred to as *He* below) who could not think of one himself. The proposed holiday involved relaxing at the beach and drinking beer. Example 1 contains transcripts of the talk which represents the group (mainly Maria), reporting back to the class in the task deconstruction stage at the end of the group activity:

Example 1: Drink, drunk, sleeping: persistent imitation in whole-class discussion

L 1: Ross (teacher): Just drinking, and...more drinking

L 2: Maria (student):	And then he will be getting drunk.
L 3: Ross:	And then sleeping and then drinking again.
L 4: Maria and Ross: [together]	and then getting drunk again.
L 5: Ross:	Yeah. Sounds great.
L 6: Maria:	He will be in circle.
L 7: Ross:	He will be in what?
L 8: Art (student)	[*gestures circles with right hand*]
L 9: Class:	In circles.
L 10: Maria:	In circles. In circle system. Drink. Drunk. Sleep.
L 11: Ross:	Right. Actually, it won't be a circle. It will be a "cycle" [*writing on board*] *a cycle*
L 12: Class:	A cycle
L 13: Ross:	A cycle.
L 14: Maria:	A cycle... a cycle ride... a cycle drinking ... he'll be in a cycle
L 15: Ross:	Yeah. He'll just keep going around and around. Drinking, drunk, sleep. Drinking, drunk, sleep.

Lines 1 to 4 indicate the conclusion of Maria's recount of the group's plans for one of their peer's holidays. In Line 5, Ross, the teacher, provides a final evaluative comment on the plan by using irony,'Great' = [That sounds great] = [That sounds terrible]. In Line 6, Maria then takes Ross's lead and offers her own final comment in the form of an evaluation, wanting to state that her peer will be in a cycle of drinking, being drunk and sleeping, repeated each day. Her comment in Line 6 'He will be in circle' is not understood by Ross, (Line 7: He will be in what?), and so Maria elaborates in Line 10 'In circles. In circle system. Drink. Drunk. Sleep.' which occurs after her peer, Art, uses gesture (drawing a circle in the air with his hands), and other peers call out 'in circles' in unison. Ross then uses the whiteboard to record the more correct word cycle, and elaborates in speech, actually, it won't be a circle. It will be a 'cycle'. Maria then utilizes audible private speech in a self-directed attempt to process the new lexical item, thus exhibiting the key process whereby self-directed, repeated experimentation with features of the model occurs, rather than mere repetitions of the first reaction (in this case, the lexical item 'cycle') (Cf. line 14: "A cycle... a cycle ride... a cycle drinking ...he'll be in a cycle"."

What can be inferred from this goal-directed learning and teaching activity is that the creation of a ZPD at Line 6, when Ross signals a breakdown in the co-construction of meaning with Maria, results in the provision of the means for Maria to learn the lexical item for the concept which she has attempted to put forward. Ross provides a model in three forms. With the goal of supporting Maria's ability to communicate the concept with more precision, Ross provides a model in a verbal form. It will be a cycle as well as a written-form cycle. He also utilizes a modeling process through repeating the lexical item *a cycle, a cycle a cycle*, which other students as well as Maria repeat after Ross, thus affording the opportunity to imitate the pronunciation. Maria's efforts in a process of persistent imitation are then noted ("A cycle... a cycle ride... a cycle drinking ...he'll be in a cycle"). These are instances of the creation of novelty, where Maria relates the new linguistic knowledge to her existing understanding of how the lexeme *cycle* collocates with another lexeme, *ride*. The model and the modeling themselves were characterized by attention to and accurate perception of the model, as demonstrated by Maria's, and indeed, the whole class's repetitions. The modeling arguably represented a meaningful benefit for Maria in order for her to establish her intended meaning, and also to learn a new item of vocabulary. Finally, the engagement level was high, as represented by Maria's public and private speech which was initiated by Ross's assistance.

4.2 Small Group Talk and Collective Modeling

Donato (1994) analyzed a group activity in which a triad of learners of French as a foreign language, who worked well together in a collective orientation, worked on planning a simulation of an altercation between a husband and his wide after the wife discovers that her husband has bought a fur coat for another woman. The simulation is to take place in the next lesson. For Donato, the significance of this protocol is the collective construction of the French past compound tense of the reflexive verb *to remember*, in which "each student appears to control only a specific aspect of the desired construction" (Donato 1994: 45). While he made no mention of imitation in his study, persistent imitation is evident in his protocols of the collective student activity. Consider the protocol below:

Speaker 1	*… and then I'll say …* tu as souvenu notre anniversaire de marriage *… or should I say* mon anniveraire?
Speaker 2	Tu as…
Speaker 3	Tu as…
Speaker 1	Tu as souvenu… *"you remembered?"*
Speaker 3	*Yea, but isn't that reflexive?* Tu t'as…
Speaker 1	*Ah,* tu t'as souvenu.
Speaker 2	*Oh, it's* tu es.
Speaker 1	Tu es.
Speaker 3	tu es, tu es, tu…
Speaker 1	T'es, tu t'es
Speaker 3	tu t'es
Speaker 1	Tu t'es souvenu (Donato 1994: 44)

As Donato rightly points out, "correct knowledge is subsequently secured from incomplete and incorrect knowledge" (Donato 1994: 45). Speaker 1 initiates an incorrect utterance, and, as shown below, Speakers 2 and 3 promptly join in and demonstrate that, collectively, they are able to develop correct linguistic knowledge and ability (as attested by the subsequent simulation activity a week later). In this process of collective scaffolding when learners are in zones of proximal development, persistent imitation is clearly evident in the way Speaker 1 deliberately and persistently alters the model (see the next example below) which has been co-constructed by the group, finally arriving at a grammatically correct version. This is persistent imitation involving a model not from the expert guidance of the teacher, but from the collective expert other, whose task engagement is manifested in what Seedhouse & Walsh (2010: 130-131) describe as 'socially-distributed cognition'. Note Speaker 1's experimentation with the forms below:

1. *.... and then I'll say* ... tu as souvenu notre anniversaire de marriage ... *or should I say* mon anniversaire?
2. Tu as souvenu..."you remembered?"
3. Ah, tu t'as souvenu.
4. Tu es
5. T'es, tu t'es
6. Tu t'es souvenu

5 Imitation in the ZPD in the Second Language Classroom: Models and Modeling

The following data are drawn from a larger study (Chappell 2010) in which an intact class of Intermediate-level English language learners in Bangkok, Thailand, was observed and recorded via audio-visual means over the six weeks that the class was held. The aim of the study was to investigate the role of group work in the second language curriculum. During this investigation, the process of internalisation was evident in much of the data, as were instances of attempts at linguistic novelty through persistent imitation in the ZPD. The sources of the episodes of persistent imitation revealed themselves in a variety of forms of models and modeling processes. In this particular section of the course, a unit of work constituted the class work which was related to the theme of extreme sports. A series of classroom activities involving the movement from whole class to small group configurations were analyzed with respect to the pedagogic utility of the group interactions. The generic stages which emerged from the data were:

task orientation > task specification > task collaboration > task deconstruction

The lesson began with the first task-orientation stage in which the teacher (Ross) introduced the theme - extreme sports - and elicited from the students any of these sports that they were aware of. In the task specification stage, Ross provided a model of the kind of discussion expected of the students in the task collaboration stage - the first small group task in which groups of four were to discuss which extreme sports they think are the most dangerous ones, and why. This model is transcribed below:

Ross:
Well, I want to ask not which one you like, but which one do you think is the scariest. [*writes on board next to list of extreme sports: "which extreme sport scares you the most?"*]

I'll tell you that for me I think parachuting is the scariest of all. Jumping to the ground with some string and nothing else to me is just really really scary. I'd never do it, never,never, never do it.

So, let's see, [*counting off students*] one, two three … [*forms small groups of four students*].

[*once groups have formed*] So, in your group, just like I did then, tell each other which extreme sport you think is the scariest, and why. In your groups,sshare a few ideas.

In the group of four being observed, the ensuing task-collaboration stage consisted of a lively discussion in which the students shared their opinions about the scariest sports. There was also evidence of general collaboration on new vocabulary and ways to express opinions (such as Tex: *I think that the most dangerous sport is parasailing*). The discussion, initiated by Tex, started almost immediately after Ross gave the prompt, a good sign that the students were engaged with that task and that the modeling provided by Ross was significant for Tex, who imitated what Ross had said with respect to the choice of extreme sport and its danger, but in a novel way:

Tex: I think the very the dangerous sport is the parachuting.
Elvis: Parachuting?
Tex: Yes, because when you jumping it depend on the the
Elvis: (inaudible)
Tex: What is call
Joy: equipment
Tex: the equipment the like if it's not open [arms gesturing a parachute above head] it you will die…

This was followed by a lively task-deconstruction stage, in which students reported to the class and gave their explanations. Tex and Joy were clearly engaged and participating at a high level. The collaborative activity of these two students is discussed below. This task was characterized by significant amounts of student talk with a focus on discussion, as well as a way for the teacher to focus on salient vocabulary via modeling exemplary languaging activity.

The next task (following the same generic task stages) involved students listening to a recount of three people who had some serious problems while being on a

mountain climbing trip. The students listened, discussed in small groups, and came together as a whole class to clarify what the problems were. There was a whole class feedback session, with Ross beginning a prolonged process of modeling by writing ideas on the board *in note form* (i.e. not in full sentences). Students then listened again so that they could summarize three errors of judgement which the climbers had made that led to their mountain-climbing predicament.

Ross then sought answers and continued his process of modeling by recording on the board the details offered by the students, this time in full-sentence form for the first two details and in note form for the third:

1) Gary didn't have enough experience.

2) They didn't have the right equipment.

3) Wrong decision: snow storm -> keep going

Students were then directed to a language-forms activity in which they were required to select from a pre-determined list of choices that the mountain climbers should have done" and "shouldn't have done". They listened to the spoken text again and clarified the meanings. By this stage, the students had a solid grasp of the details of the problems which had occurred during the mountain climbing event. Continuing to a further step in modeling, Ross then provided some explanation and concept checking of past modals of regret which were related to the mountain climbing event, displaying these models clearly on the board. He first went over meaning, then over form. In terms of effective modeling, this episode represented a pedagogic approach which was focused on the learners attending to and accurately perceiving the significant features of the model, both in terms of the syntax and the differences in meaning between the three models. The grammatical models had been systematically linked to the unfolding semiotic field of the text and thus represented both a meaningful linguistic resource to be learnt as well as one which represented functional value, vis-a-vis the prior and forthcoming communicative activity of speculating about the content of the text. It was also representative of

affectively engaging interactions between the teacher providing and learners attending to the models, as evidenced by the video footage of the lesson:

They should've checked the weather. [good idea for the past]

I would've gone down the mountain [my own idea about the past]

They could've died. [possibility for the past but it didn't happen]

In a transition from the previous task deconstruction to a new task-orientation stage, students were instructed to create three sentences based on the mountain-climbing text, following the three model sentences on the board. Students were prompted to work in pairs and help each other to construct their sentences.

This integration of teaching and learning activities engaged students in the content, and then in detailed understanding of the text, and then focused the learners' attention on noticing specific language features which can be used to make observations on (*reflect upon and comment upon*) the content of the text. This culminating activity led to a stage where students were to form their own observations about the event, using the models which had been developed during the pedagogic discourse in both the spoken mode (from the audio activity and also from the talk of the teacher and the students) as well as the written mode (in the form of the models on the whiteboard and notes students had taken). Zones of proximal development had been opened up for learners in which the expert was distributed across the dyads (see below for Tex and Joy's activity) as well as present in the teacher who monitored and intervened when needed. The step-by-step modeling that the teacher carried out was then manifested in temporary cognitive representations in the form of semiotic signs and symbols. These were then available as tools to support the process of internalisation.

The work of Tex and Joy below is presented as an episode of collaborative, persistent imitation in a zone of proximal development:

Pair (Tex and Joy): first sentence

Tex**:** They they should they should they should they should they should a course mountain climbing should have should have

Joy**:** should have

Tex**:** taken

Joy**:** taken a mountain climbing course

Tex**:** taken a climbing climbing a mountain climbing course they should have they should should they should've taken a mountain climbing course before go to claming c-l-a-m-i-n-g *(spelling)* *[both students write in their notebooks]*

Pair (Tex and Joy): second sentence

Tex**:** They would they would *(looking at sample on board)* they would plan they would would have gone down they would have check they would have check they would have check check the equipment they would have check a equipment?

Joy**:** *(nods)* hm

Tex**:** they would have checked a equipment they would've they would've they would've checked equipment (*both writing in notebooks)*

[Ross looks on and listens in, reading what each student has written in their notebooks]

Ross: Look at the difference here between these two (*comparing They should have with I would have*) This one imagine for yourself if you were in this situation and here you're thinking about the mountain climbers Gary and Chris OK? So here you're imagining yourself in this situation ... I would've checked the equipment

Joy: Oh! (erases in her notebook and makes corrections)

Tex: Yes I see I would've checked the equipment (*repeating after Ross*)

[Ross moves to another group]

In the first frame, Tex begins by appropriating the words *they*, *should*, and *have* provided by Ross in his presentation of the models of grammatical forms, and proceeds in a complex process of volitional and deliberate experimentation to construct word-by-word the target utterance. *They should have taken a mountain climbing course before go* (= going) *to claming* (= climbing), working hard to be syntactically correct. Tex's grappling with the syntax and appropriate words to complete the target utterance is evidence of a developmental trajectory in a zone of proximal development, in which persistent imitation is at work with a maturing linguistic function which has not yet been sufficiently developed for independent

performance, yet has developed sufficiently to allow Tex to make use of the collaborative support of the expert other (in the spoken and written modes outlined above). This, Chaiklin (2003) would argue, satisfies the crucial assumption for imitation in the ZPD.

The immediately preceding modeling by Ross in the form of the step-by-step process outlined above make it possible for Tex to make attempts at independent performance, but as can be seen, his ability to construct the utterance correctly and successfully falls short. There is a moment when Joy and Tex demonstrate the successful outcome of collaboration when, in an episode of collective thinking, they co-construct the utterance They should have taken a mountain-climbing course. This inspires Tex to go beyond the simple model, provided earlier by Ross and re-worked together with Joy in different words but the same form, to attempt to construct a clause complex, which he does quite successfully by saying and writing *They should've taken a mountain climbing course before go to claming*. Of further note is the additional goal Tex has set himself in constructing the reduced form of *should have - should've -* correctly to complete the accuracy of the utterance. Apart from the error of the use of the non-finite clause in the additional clause which Tex constructed, the misspelling of *climbing* as *claming* is the only error.

The second and third frames demonstrate the moment when Tex's ability to successfully use the form *I would have...* falls short. However, his understanding is sufficiently developed for him to make sense of the immediately prior models provided by Ross, as well as the follow-up elaboration models provided during the group work, while he is working with Joy to construct the correct form of the utterance. Tex's initial attempts result in an interim construction *They would have checked the equipment*, and it is clear that he has not related the function of expressing a possible action taken by a speaker in the past which did not actually happen to the correct form *I would have + complement*. It can rather be inferred that he has, incorrectly, assigned the same function as he, correctly, did to the previous form - to make a recommendation about a past action. This is evidence of inaccurate perception of a significant feature of the model, which is unsurprising

given the "profusion of modeling influences" (Bandura 1977: 41) to which Tex has been exposed in this text-rich lesson. Ross intervenes and provides a comparison of the two forms and meanings and also provides a spoken model of the correct utterance for Tex's intended meaning. This culminates in Tex imitating the model of the desired form, *I would've checked the equipment* after providing Ross with the feedback *Yes I see*.

However, as the episode below shows, once the collaboration between Ross and Tex ended, as Ross moved his physical location to assist learners in another group, Tex again struggled to correctly and independently construct the utterance:

> Tex: They should check equipment
>
> Joy: It's your idea it's your idea it's uh your idea the good idea for the past your own idea
>
> [long pause as Joy continues to make corrections in her notebook and Tex looks at the examples on the board ... then Joy looks up to Tex]
>
> Tex: Alright alright
>
> Joy: Something you should have something you have to do but you didn't do something. Would have is your idea your own idea about the past good idea about the past that mean good idea for you to do that but you didn't do
>
> Tex: good idea ...oh yeah good idea but I didn't do (pauses and thinks for a while) I would have taken a course
>
> Joy: took take taken
>
> Tex: (writing) I would have taken a course of mountain m-o-u-n-t-a-i-n claming
>
> Joy: yes
>
> Tex: (looking at board) to check they could they should equipment
>
> Joy: e-q-u-i-p-m-e-n-t
>
> Tex: (writing) I would have check equipment
>
> [Ross calls class to attention and begins the deconstruction stage, asking pairs for their sentences. He has already asked two students to write their sentences on the board]

A little earlier, while Ross was providing the assistance, Joy indicated her understanding through her exclamation *Oh!* and through erasing and correcting her written work. This was made clear in the assistance she provided Tex when she assumed that he was still unclear as to the meaning of the form. She attempted an explanation of the hypothetical nature of the meaning associated with the form, of which Tex subsequently signalled an understanding, and indeed demonstrated that

he was able to construct a far closer approximation to the correct form in this highly supported episode involving the kinds of peer mediation found by Swain & Lapkin (1998) and Otha (2000):

> Tex: oh yeah good idea but I didn't do I would have taken a course
>
> Joy: took take taken
>
> Tex: I would have taken a course of mountain claming
>
> Joy: Yes ...
>
> Tex: to check they could they should equipment I would have check equipment

As Baldwin's (1906) theory suggests, what Tex is doing in these episodes is making use of persistent imitation through his experimentation and repetitions of models provided by the expert other - the teacher. This is ultimately aimed at transforming what is at first interpsychologically present in the interactions described herein to a novel function which is being internalized and which Tex is able to perform independently. Following Baldwin's description, Tex's work is not slavish, it is rather goal-directed cognitive work aimed at appropriating what is present in the structured pedagogic discourse of the classroom and 'making it over' (Baldwin 1906: 22) in a form which is a distinct part of his own personality.

Baldwin's theory of persistent imitation as intentional, goal-directed cognitive activity allows for a more fine-grained analysis of internalisation in the zone of proximal development. It enables a view of what is occurring through seeing "the importance of repetitions and of the imitative way of securing repetitions in the progress of mind" (Baldwin 1894: 27). It is through the contingent support in the form of modeling provided by peers and the teacher prior to and during small group work which has enabled Tex and Joy to internalize greater understandings of the form and function of the target language. Tex's repetitions and imitations are part of the processes which enable internalisation to proceed, and as is seen below, these greater understandings are demonstrated by Joy and Tex in a subsequent stage of the lesson, as they are able to perform without the direct assistance outlined above.

As already mentioned, evidence for the dyad members' developing mastery of the linguistic concepts in the episodes above was found in the subsequent task, where in the task orientation stage, Ross presented a scenario in which an armed hold-up of a grocery store was witnessed by a man, Eric, as he was shopping in the store. In the scenario, Eric attempted to prevent the hold-up by approaching the villain from behind and knocking the gun from his hands, which resulted in a shot being fired from the gun and the villain fleeing the store. No one was injured. In the task-specification stage, Ross directed students to make some statements about what Eric did and to give opinions about whether or not he should have done it, what else could have happened, and what the students themselves would have done if they had been there. In the task collaboration stage, Joy and Tex produced the following utterances:

> Tex: No one couldn't have injured
>
> Tex: Someone could have injured
>
> Joy: He could have been killed
>
> Tex: Eric could have been injured
>
> Joy: He should have run away
>
> Tex: I would have walked away

The above analysis shows that the effect of the teacher providing systematic models and modeling, while working in learners ZPDs, has set up affordances for persistent imitation to ignite the internalization process. However, just as the earlier study by Aljaafreh and Lantolf (1994) demonstrated, the significance of these utterances at this historical point in the learners' instructed second language learning is not that the grammatical structures and forms have now been mastered and are expected to be used in language activity by Joy and Tex from this time forth. Rather, the dyad's ability to construct the language forms correctly in a communicatively focused task has progressed from both independent and assisted performance stages of previous teaching / learning activities in a previous ZPD. However, rather than expecting language development to proceed in a linear way,

Vygotsky's theory of microgenetic development suggests that it occurs "cyclically or rhythmically" (Vygotsky 1935 cited in van der Veer & Valsiner 1991: 309) such that there will be instances in which Tex and Joy demonstrate proficient use of the linguistic concepts they have worked on in the episodes above, and other instances characterized by regression, when there is a discontinuity in the otherwise automatic, continuous access to the forms (Lantolf & Thorne 2006: 282), in which it may appear that they have, in fact, lost some mastery of the forms.

6   Conclusion

Vygotsky's theories have provided a strong impetus for researchers to investigate L2 learning and acquisition processes which are grounded in the social interactions between the actors involved in the respective teaching and learning activity. This study highlights one of those processes – imitation - which has received scant attention in the literature, and which has been developed in this study by seeking complementarities between the work of Baldwin and Vygotksy. The result of fusing the learning processes with the environmental influences in the form of teaching activities involving models and modeling, is a more comprehensive account of the relations between group work, interaction and L2 learning. Persistent imitation is a central element of the internalization process, which is mediated by the semiotic signs in the form of models and modeling. What will be interesting to see in future research is the analysis of more examples of models and modeling made from the perspective of sign mediation in the ZPD with a view to developing taxonomies of models on which to base pedagogical claims for effective second language pedagogy.

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