Lantolf, J., & Thorne, S. L. (forthcoming). Sociocultural theory and the genesis of second language development. Oxford: Oxford University Press.

Please note:
- This is a draft version ("pre-final" in OUP's terminology). The book will be available in published form later this year (2005).
- Our development of a "linguistics of communicative activity" begins on page 4.

1 Introduction

Our purpose in writing this book is to describe the history and continuing development of Vygotsky-inspired research and its application to second- and foreign-language developmental processes and pedagogies. Vygotskian cultural-historical psychology, often called sociocultural theory in applied linguistics and SLA research (see discussion below), offers a framework through which cognition can be systematically investigated without isolating it from social context. As Lantolf (2004: 30–1) explains, 'despite the label "sociocultural" the theory is not a theory of the social or of the cultural aspects of human existence . ... it is, rather, ... a theory of mind ... that recognizes the central role that social relationships and culturally constructed artifacts play in organizing uniquely human forms of thinking'.

The relationships between human mental functioning and the activities of everyday life are both many and highly consequential. Participation in culturally organized practices, life-long involvement in a variety of institutions, and humans' ubiquitous use of tools and artifacts (including language) strongly and qualitatively impact cognitive development and functioning. Within the Vygotskian tradition, culture is understood as an objective force that infuses social relationships and the historically developed uses of artifacts in concrete activity. An understanding of culture as objective implies that human activity structures, and is structured by, enduring conceptual properties of the social and material world. In this sense, culture is 1) supra-individual and independent of any single person, and 2) rooted in the historical production of value and significance as realized in shared social practice [1] (See Bakhurst 1991; Cole 1996 for discussions.) Language use and development are at the core of this objective characterization of culture both at the level of local interaction (actual

communicative activity) as well as that of society and the nation state in arenas such as language policies, language ideologies, and public education as mass social intervention (to name but a few). As we will discuss briefly below and in greater detail in the chapters dealing with mediation, culturally constructed meaning is the primary means that humans use to organize and control their mental functioning and for this reason, language development and use plays a central role in Vygotsky's theory of mind.

Sociocultural theory is a theory of the development of higher mental functions that has its roots in eighteenth and nineteenth century German philosophy (particularly that of Kant and Hegel), the sociological and economic writings of Marx and Engels (specifically *Theses on Feuerbach* and *The German Ideology*), and which emerges most directly from the research of the Russian psychologist L. S. Vygotsky and his colleagues. While research establishing the relevance of culture to the formation of human mental life has been carried out within the social sciences for over a century, contemporary neuroscience research also demonstrates that phylogenetically recent cortical areas of the brain (specifically the prefrontal cortex) are hyper-adaptive to use and experience. (See LeDoux 2002.) A growing mass of evidence from a variety of disciplines has established strong connections between culture, language, and cognition, and this is nowhere more relevant than in application to organized education, where environment, information, and behavioral processes are (ostensibly) engineered to create optimal conditions for learning and development.

Sociocultural terminologies—what's in a name?

Before we proceed further, we believe that a terminological clarification is necessary. In part due to its use by multiple research communities, there has been considerable and understandable debate about the label 'sociocultural theory'—what it means, who it belongs to, and what its intellectual lineage is. (A colloquium at the American Association for Applied

Linguistics organized by Zuengler and Cole (2004) addressed this very issue.) There exists a general use of the term 'sociocultural', sometimes hyphenated as 'socio-cultural', in general reference to social and cultural contexts of human activity (for example, Heath 1983; Ochs 1987; Ochs and Schieffelin 1984). L2 researchers, most especially Norton (2000) and her colleagues (Norton and Toohey 2004), have also situated their research within the broader socio-cultural domain. This research is concerned primarily with socialization and the discursive construction of identities (for example, gender, foreigner, native, worker, child, etc.) and is certainly theoretically commensurate with the intellectual project we develop with this volume. However, the term 'sociocultural theory' as we use it is meant to invoke a much more specific association with the work of Vygotsky [2] and the tradition of Russian cultural-historical psychology, especially within applied linguistics research. (See Donato 1994; Frawley and Lantolf 1985; Lantolf 2000; Lantolf and Appel 1994; Swain 2000; Thorne 2000b; 2005.) Moreover, it is heavily focused on the impact of culturally organized and socially enacted meanings on the formation and functioning of mental activity. Our adoption of the term 'sociocultural theory' in this second and more constrained sense presents a paradox in that it is unlikely that Vygotsky himself ever used the term. James Wertsch, in particular, has encouraged the adoption of 'sociocultural' over 'cultural-historical' to intentionally differentiate the appropriation of Vygotskian theory into the West from certain negative entailments found in the Russian tradition. (See Wertsch, del Río, and Alvarez 1995.) The critique is that the term 'cultural-historical' brings with it colonialist and evolutionist overtones that position industrialized societies as superior to developing societies and those without Western scientific cultures and literacies. While we agree that this is a serious problem in much of the post-enlightenment and early twentieth-century research in psychology, education, linguistics, and anthropology, in our estimation a simple name change does not rectify the situation. Another common usage problem is that the choice of 'sociocultural' provokes confusion in that this term is used in a wide array of current as well as historical research that is in no way linked to the Marxist psychology that emerged in the writings of Vygotsky, Luria, and A. N. Leont'ev.

In sum, and despite our preference for the label 'cultural-historical psychology', due to the inertia and name recognition of 'sociocultural theory' (hereafter SCT) for the multiple lineages of Vygotsky-inspired research in applied linguistics, we continue with this convention (and have been urged by our publisher to do so). While current SCT approaches include numerous and somewhat divergent emphases, all would agree with Wertsch (1995: 56) that 'the goal of [such] research is to understand the relationship between human mental functioning, on the one hand, and cultural, historical, and institutional setting, on the other'.

The remainder of this introductory chapter has two primary goals: to present an overview of the organization of the book, and to outline an orientation to language and communicative activity that is compatible with the theory of mind and mental development that informs our discussion of L2 learning. We address the second of these topics first.

Developing a sociocultural orientation to language and communicative activity

A challenge to many approaches to SLA is that, while aspects of any given model and/or theory may be well-defined, an explicit statement about what language is and how language operates in thinking and communicative activity is frequently underspecified. SCT is no exception, though both historical and recent studies specifically oriented toward this problem exist (for example, R. Engeström 1995; Thorne and Lantolf forthcoming; Vološinov 1973; Vygotsky 1987; Wells 1999; 2002). In their critical review of SCT, Mitchell and Myles (1998: 161) suggest that SCT researchers 'do not offer any very thorough or detailed view of the nature of language as formal system'. They ask if the theory sees language as a rule-governed system, or 'a patchwork of prefabricated chunks and routines, available in varying degrees for recombination?' (p. 161). Motivated in part by this substantive critique, we will describe a perspective on language as communicative activity that is commensurate with SCT's essential tenets. To foreshadow the discussion, we want to stress that we are not going to propose a formal theory of language, but we are going to argue that because SCT is a

theory of mediated mental development, it is most compatible with theories of language that focus on communication, cognition, and meaning rather than on formalist positions that privilege structure.

As Fauconnier and Turner (2002: 3) note, 'we live in the age of the triumph of form. In mathematics, physics, music, the arts, and the social sciences, human knowledge and its progress seem to have been reduced in startling and powerful ways to a matter of essential formal structures and their transformations'. Indeed, nearly a century of linguistic research has revealed language to be an 'astonishingly complex' phenomenon (Fauconnier and Turner 2002: 4). On the other hand, they caution that scientific knowledge of language entails more than uncovering 'deep hidden forms', because there is also the matter of substance to be dealt with: 'the blueprint is not the house, the recipe is not the dish, the computer simulation of weather does not rain on us' (p. 4), and to cite their most forceful example, it is not his armor that made Achilles 'so formidable' (p. 5). Meaning, for far too long the overlooked component of formalist approaches to language study, needs to be brought back to its proper place alongside form. The suggestion to recover meaning in language research may sound surprising given the vibrancy of the literature on communicative language teaching and negotiation of meaning. The kinds of meaning we are referring to, however, are conceptual (not referential) ones that mediate thinking. Examples are conceptual metaphor theory, lexical networks, construal, usage-based models of language acquisition, and linguistic relativism. Discussion of this research is distributed throughout the volume.

Saussure, in his attempt to construct a scientific linguistics on a par with the physical sciences, made two critical moves that had a profound and enduring impact on the way linguistics is practiced in the West. The first was to background the importance of time (i.e. history) and the second was to assign language the ontological status of thing on a par with other things, although of course not a material thing (Crowley 1996: 18). Once language was reified into a more or less stable object [3], it could be studied through the lens of science, which meant the study of its form, not the meanings that humans created through its use. The result was that meaning (primarily referential) was considered to reside in the signs

themselves rather than in the interaction between human beings engaged in concrete goal-directed material activity. According to Agar (1994: 37), the effect of Saussure's bifurcation of language into *langue* and *parole* and the subsequent snubbing of the latter, was to build a 'circle around language' whereby language comprises an 'inventory of symbols with a system that ties them together' and as such it becomes 'pure, clean, a steel skyscraper arising from the chaos in the streets' (ibid.).

This stance calls into question both 'the ontological distinction between language and the world and the epistemological one between knowledge of language and knowledge of the world' (Hanks 1996: 119). This position blurs the distinction between linguistic type and linguistic token, or what for Saussure is the *langue/parole* distinction and for Chomsky the *competence/performance* separation. (NB: we are not suggesting that langue/parole and competence/performance are co-equivalent.) According to Hanks, accepting the Saussurian/Chomksyan distinction 'we are led inevitably to search for underlying signification lodged within language, by which it corresponds to an external reality' (ibid.). If on the other hand, we assume a co-dependence between the two, 'we are led to search for the common elements and pathways by which they communicate' (p. 120) and to situate meaning not in language *per se* but in concrete human activity in the world of social interaction.

Bloomfield, in Agar's view, drew the Saussurian circle around language even tighter when he proposed that the scientific study of language was to focus exclusively on the sound system and the grammar and consequently banished the study of meaning to psychology (Agar 1994: 56). In effect, the Bloomfieldian circle, even more than the Saussurian circle, hermetically sealed language off from all contact with culture. Agar proposes bringing language and culture (i.e. the activity of people making sense of the world) back together, as they were intended to be in the early work of cultural anthropologists such as Boas, Malinowski, and Sapir. Agar refers to the organic union of language and culture with the functional, if unwieldy, neologism 'languaculture' (p. 60). The concept of languaculture penetrates, if not tears down completely, the circle around language and in so doing re-establishes the unity between people and their fundamental symbolic artifact. The sense of

meaning expressed by languaculture is not of the referential sort (signifier–signified) described by Saussure; rather, it is comprised of conceptual meanings created by communities of speakers as they carry out goal-directed activity mediated by language. All of this is not to argue that form does not matter—it does. It is to argue, however, that meaning and form are dialectically dependent upon one another and that one without the other presents a distorted picture of language, or more precisely, of languaculture.

In particular, as will become apparent in the chapters dealing with mediation and L2 learning, cognitive linguistics is an especially attractive partner for SCT: it brings culturally organized meaning (i.e. conceptual metaphors) to center stage. From the perspective of languaculture and cognitive linguistics, learning a new language is about much more than acquiring new signifiers for already given signifieds (for example, the Spanish word for 'fork' is *tenedor*). It is about acquiring new conceptual knowledge and/or modifying already existing knowledge as a way of re-mediating one's interaction with the world and with one's own psychological functioning. Once the circle is opened up, relevant forms of communicative activity are no longer limited to verbal language. Gestures, as theorized by David McNeill and his colleagues (see McNeill 1992; McNeill and Duncan 2000), also take on significance for L2 learners—a topic that we address in the chapters on mediation.

We reserve discussion of the relevance of cognitive linguistics for Chapters 4 and 5 where we address concept-based mediation. In the section which now follows, we elaborate on the connections between language and culture by offering the reader a general sense of what a linguistics of communicative activity (henceforth, LCA) can provide. We illustrate how this approach to language analysis can inform L2 learning and use in Chapters 3 and 4 where we consider Frawley's (1997) model of private speech and in Chapters 6 and 7 where we address Tomasello's (2003) usage-based model of language acquisition. Given the incipient nature of LCA research, this discussion, for the time being, will be limited. We begin the discussion of the LCA approach by drawing upon models of language within which the segregation of language from culture never occurred, in particular the view of language represented in the Russian cultural-historical tradition.

Developing a linguistics of communicative activity

A. A. Leontiev (1981) describes the field of psycholinguistics as having three stages since its inception in the 1950s. The first generation, represented in the work of researchers such as Charles Osgood and Thomas Sebeok, was based on descriptive linguistics and behaviorist psychology. Its goal was to understand how individuals acquire and master discrete linguistic elements. The problem with the assumptions of the first generation, according to Leontiev, is that 'it is a speech theory about the behaviour of the individual, isolated not only from society but also from any real process of communication, as such communication is reduced to the most elementary model of information transfer from speaker to listener' (p. 92).

The second generation, under the influence of Chomsky's early linguistic theory (i.e. *Syntactic Structures* (1957) and *Aspects of the Theory of Syntax* (1965)) and George Miller's model of linguistic processing (Miller 1951; 1962), overcame the atomism of the first generation in its claim that what is acquired and what underlies linguistic performance is a system of rules. However, the second generation, in Leontiev's view, continued to maintain the individualism of the first generation, with the social environment serving only to trigger innately specified linguistic principles (p. 93). Moreover, Leontiev contends that the second generation is primarily linguistic rather than psychological in scope, despite claims to the contrary; that is, psychological processes are reduced 'to mere speech manifestation of linguistic structures' (p. 93). Finally, the unit of analysis of the second generation is the sentence, a unit that within the LCA perspective, has no concrete reality and is studied 'outside the real communication circuit' (p. 94), where the appropriate unit of analysis is the utterance. (See below.) Thus, in acquisition and in experimental research of the second

generation, what is acquired and what is processed is the abstract system of principles, parameters, and rules that are assumed to underlie human linguistic performance.

The third generation of psycholinguistics is the generation characterized by its concern with the interaction between communicative activity and psychological processes, such as voluntary memory, planning, learning and development, attention, and thinking. The third generation eschews interest in the psycholinguistics of the sentence and focuses instead on the utterance as its basic unit of analysis. From this perspective, language teaching and learning is not focused on rule-governed a priori grammar systems that must be acquired before people can engage in communication, but is instead concerned with enhancing learners' communicative resources that are formed and reformed in the very activity in which they are used—concrete, linguistically mediated social and intellectual activity (p. 99).

Dialogism and contextual meaning potential

Wittgenstein (1958), in his *Philosophical Investigations,*[4] introduced the idea of 'language game' to underscore that language is 'inextricably bound up with the non-linguistic behaviour which constitutes its natural environment' (McGinn 1997: 43). This is in opposition to 'the idea of language as a system of meaningful signs that can be considered in abstraction from its actual employment. Instead of approaching language as a system of signs with meaning, we are prompted to think about it *in situ*, embedded in the lives of those who speak it' (McGinn: 44). Wittgenstein recognizes the biological substrate on which human consciousness is built, but like Vygotsky, he insists that human life is fundamentally cultural and as such is mediated by languaging activity (i.e. language-games) that is implicated in the non-linguistic activities of human agents.

To illustrate his idea of language game, Wittgenstein presents the frequently cited example of a stone mason and his assistant building a wall. The mason calls out to his

assistant the utterance 'Slab!' to which the assistant responds by picking up the appropriate stone and passing it to the mason. At issue is how is it that the assistant knows precisely how to respond to the mason's utterance? In a linguistics of a priori meanings and forms, a likely explanation would be that both the mason and his assistant understand the utterance 'Slab' to mean 'Bring me a slab'; hence, the single word utterance represents a reduction of the full underlying imperative sentence. Wittgenstein then asks how it is that when the stone mason produces 'Slab' he really means 'Bring me a slab'. Does the speaker say to himself the full sentence before uttering the shortened version and does the assistant then expand the single-word utterance into the full imperative before fetching an appropriate piece of stone? For Wittgenstein, the answer to both questions is decidedly 'No'. Furthermore, he asks, why can't things be the other way around—when someone says 'Bring me a slab' the person really means the extended form of the sentence 'Slab?' For Wittgenstein, meaning does not reside in some abstract underlying sentence in the mind of the speaker and the listener, but in the activity transpiring in the work site—that is, 'in the pattern of activity within which the use of language is embedded' (McGinn 1997: 57). Meaning, in this sense, involves a process of 'attunement to the attunement of the other' (Rommetveit 1992: 10; see also Barwise and Perry 1983), a formulation that is also supported and extended within ethnomethodology and conversation analysis. Heritage (1984), for example, makes the following observation, '[w]ith respect to the production of normatively appropriate conduct, all that is required is that the actors have, and attribute to one another, a reflexive awareness of the normative accountability of their actions' (1984: 117).

Garfinkel's ethnomethodology characterizes communication in a way that strongly reflects Wittgenstein's position. This is captured in the following quote from Heritage:

> language is not to be regarded as a matter of 'cracking the code' which contains a set of pre-established descriptive terms combined, by the rules of grammar, to yield sentence meanings which express propositions about the world. Understanding language is not, in the first instance, a matter of understanding sentences but of understanding *actions*—utterances—which are constructively interpreted in relation

> to their contexts. This involves viewing an utterance against a background of *who* said it, *where* and *when*, *what* was being accomplished by saying it and in the light of what possible *considerations* and in virtue of what *motives* it was said. An utterance is thus the starting point for a complicated process of interpretive inference rather than something which can be treated as self-subsistently intelligible.

(Heritage 1984: 139–40, italics in original)

Garfinkel developed and supported this view with data from a creative series of 'breeching experiments' that were developed to illustrate that social scientific formulations of objectively rational action fall apart under local conditions. These experiments involved a researcher intentionally flouting the explicit rules of a game (chess or tic tac toe) or the implicit norms of everyday conversation. The breeching experiments demonstrated that breakdowns in normative social action illustrate the mechanisms of social cohesion and trust that enable communicative interaction. (See Garfinkel 1967.) Understanding in concrete communicative activity does not rely on divining the correct underlying representation. There is no underlying sentence. There are only people engaged in the activity of communicating in concrete material circumstances with specific intentions.

According to McCarthy (personal communication, February 9, 2004), possible 'underlying sentences' would only ever be likely to occur in 'displaced' communications such as writing—a poster advertising the dollar credit—or TV ad-speak, or the analysis of the linguist. As the research of Rommetveit (1974), Vološinov (1973), Linell (1998), and Vygotsky (1987), among others shows, the greater the shared knowledge between interactants, the more likely they are to speak in fragments, leaving out that which would be redundant. Our position aligns with Hopper (1998; 2002, to be discussed shortly), who argues that grammar is not a pre-existing closed system of formal properties but is emergent in dialogic activity. In other words, just as people create new meaning in discourse, they also shape linguistic forms to meet their communicative needs and intentions. Thus, while it may be possible to study language as discrete elements and their interrelations, it is problematic to

assume that speech activity can be so treated without compromising its integrity (as was argued by Malinowski (1923) over 80 years ago [5]).

Underscoring this notion of meaning potential, and based on extensive cross-linguistic research, Slobin has remarked that, 'language evokes ideas; it does not represent them' and that 'linguistic expression is thus not a natural map of consciousness or thought. It is a highly selective and conventionally schematic map' (1982: 132). The concept of meaning potential has a long tradition in linguistics dating at least to the writings of Humboldt, who saw language as a process and not as a final product (Marková 1992: 52). That is, Humboldt conceived of language as simultaneously 'the permanent possession of people and yet as a phenomenon that is constantly changing' (p. 52). In other words, language is 'forged by speaking' (p. 52). The tension between language seen as something static and immutable and language as constantly changing through concrete use was well-developed by Russian and Prague School linguists, a perspective that emerged from within the intellectual milieu of which Vygotsky was also a part. It is in the tension between meaning potential (collaboratively constructed by a culture and made available to its members) and concrete communicative practice of individuals that meaning, or what Vygotsky called 'sense' is actualized. Rommetveit provides an excellent example of how this occurs, which we will address below.

The view of language we are proposing is nicely captured by the notion of 'dialogism', a concept generally associated with the writings of Bakhtin (1981; 1986).[6] (In fact, the term itself was never used by him. See Holquist 1990: 15.) Bakhtin developed this conception of language in reaction to what he calls Saussure's 'abstract objectivism'—the view that language as *langue*, as a 'pure system of laws governing all phonetic, grammatical and lexical forms that confront individual speakers as inviolable norms over which they have no control' (Holquist 1990: 42). The other pole of the dualism, *parole* (the speech of the individual), as with Chomsky's 'performance', is generally treated as so unsystematic as to resist scientific investigation (Holquist 1990: 45). In setting up the *langue/parole* binary and then abandoning the pole of the individual in favor of the social norm, Saussure 'abandons the

self in the service of the other' (Holquist 1990: 46). For Bakhtin this represents a fatal error, because it converts language into an abstract monologic entity that reifies linguistic form, which in turn sanctions its extraction from the domain of human linguistic intercourse (Vološinov 1973: 81). The dialogic lens, on the other hand, brings 'real-life understanding on the part of the speakers engaged in a particular flow of speech' to center stage. Accordingly, the '*actual reality of language-speech is not the abstract system of linguistic forms, not the isolated monologic utterance, and not the psychophysiological act of its implementation, but the social event of verbal interaction implemented in an utterance or utterances'* (Vološinov 1973: 94, italics in original).

Dialogue, in Bakhtin's thinking, is not restricted to verbal face-to-face interaction, but also entails 'verbal communication of any type whatsoever' (Vološinov 1973: 95), including the written word, which is 'a verbal performance in print', since among other things, it is 'calculated for active perception, involving attentive reading and inner responsiveness, and for organized, *printed* reaction in the various forms devised by the particular sphere of verbal communication in question (book reviews, critical surveys, defining influence on subsequent works, and so on' (ibid.). Vygotsky, in fact, maintained that writing is a conversation with a white sheet of paper.

Dialogic speech is complex, because it simultaneously comprises mutuality and struggle (Marková 1992). As Marková describes it, mutuality has three fundamental characteristics:

> a mutual responsibility for the psychological situation of the dialogue to which they jointly contribute; its situatedness, which includes not only the physical setting, but also the relationship between the interlocutors, their histories and what they say as the dialogue unfolds; its semantic and thematic unity which means that not only do exogenous factors such as setting, but endogenous factors, such as the participants' motives and goals, also shape the interaction and the meanings that are brought into language.

(Marková 1992: 56–7)

In dialogue, utterances are also always a response to a previous utterance and in turn they always qualify utterances that follow (Holquist 1990: 60).[7] Thus, in dialogue, speakers engage in what can be called a cooperative struggle—a struggle to populate utterances with their own meanings (as listener or speaker), but in response to those meanings that populate the utterances of another. A version of this process is visible at the level of the actual language production, where multiple speakers may demonstrably contribute to the building of a single syntactic utterance. Within conversation analysis, this process is termed 'collaborative completion' or 'joint production'. (See Lerner 1991.) To borrow again from Vološinov, 'the forms of signs are conditioned above all by the social organization of the participants involved and also by the immediate conditions of their interactions. As these forms change, so does the sign' (1973: 21). At the same time, interlocutors must contend with 'the local need to communicate a specific meaning and the global requirements of language as a generalizing system' (Holquist 1990: 60). For speakers, what matters with regard to linguistic forms is not their stable and invariable identity across contexts of use, but their adaptability to the speaker's specific communicative intentions (Vološinov 1973: 68).

A compelling example of how dialogism operates in concrete communicative interaction is offered by Rommetveit, who also reacts against the Saussurian signifier–signified conceptualization of meaning. It seems that there is a fireman, Mr Smith, who resides in Scarsdale, a suburb of New York City.[8] One fine Saturday morning Mr Smith is observed pushing a machine across his lawn. The question Rommetveit poses is 'what is it that we see in the as yet unverbalized situation?' The answer, he says, will differ depending on the how the background circumstances are made sense of as they are dialogically brought into language with expressions such as MOW THE LAWN, BEAUTIFY THE GARDEN, ENGAGE IN PHYSICAL EXERCISE, WORK, NOT WORK, MR SMITH'S AVOIDING THE COMPANY OF HIS WIFE, etc. Rommetveit then asks the reader to suppose that Mrs Smith is sitting in her kitchen having coffee when she receives a telephone call from her friend Betty, who opens the conversation with: 'That lazy husband of yours, is he still in bed?' Mrs Smith responds: 'No, *he is WORKING this morning, he is mowing the lawn*'.

Shortly thereafter, Mr Jones calls, and, when he does, it is usually to find out if Mr Smith is free to go fishing and so he asks Mrs Smith: 'Is your husband working this morning?' Mrs Smith answers: '*Mr Smith is NOT WORKING this morning, he is mowing the lawn'*. Rommetveit asserts that in both cases Mrs Smith is telling the truth, but importantly, 'what is made known about one and the same 'external' state of affairs is inextricably fused with different, yet in each case intersubjectively endorsed, concerns'. In both cases, what Mrs Smith sees going on in the garden is brought into her consciousness as a consequence of the dialogically constructed intersubjectivity (the aforementioned 'attunement to the attunement of the other') between Mrs Smith and her interlocutors. Her attunement is immediate and not the result of some internal computation which chooses from among alternative mental representations of the lexical entries for WORK (1992: 27; see also Rommeveit 2003). Rommetveit's point is that our experience of the world is not a private but an intersubjective (i.e. dialogic) matter. Thus, in both cases, Mrs Smith's statement that her husband is WORKING and NOT WORKING depends on the shared position she and her interlocutors dialogically construct.

From a computational view of the Saturday morning events, it could be argued that all that is happening is that Mrs Smith is computing contextually appropriate meaning from an underlying set of representations for the lexical entry WORK, which would include '*being on the job*' and '*being physically active*' (Rommetveit 1992: 10). As Rommetveit notes, however, this constitutes an ad hoc solution, since it is possible to add novel entries to the lexicon post facto 'once we have observed novel ways of using a familiar word' (Rommetveit 1992: 10). This is hardly a principled explanation of what occurs in everyday human interaction. Importantly, from the LCA perspective, for Mrs Smith there is no contradiction in asserting that her husband's activity, which hasn't changed, is brought into language as 'working' and as 'not working', because her understanding of what is going on in the garden arises from her attunement to the attunement of the other and not from her accessing some internal representational system.

Rommetveit makes the point even more convincingly when he extends his scenario to one final interaction between a married couple, who happen to be driving by the Smith's house on that Saturday morning. As soon as they see Mr Smith, the wife points to her husband's rather expansive stomach and then to the fit-looking Mr Smith and says, 'THAT is what you ought to do'. It is not likely that 'THAT' is a reminder to her husband that their own lawn needs to be mowed, and in fact, the couple lives in an apartment that has no lawn. The convergence of their intersubjectivity here is on a reality in which pushing a lawn mower also includes such activities as jogging, riding a bike, etc. According to Rommetveit, bringing such a reality into language and thus into the interlocutors' consciousness only became possible in a cultural milieu composed of 'white-collar work, affluence, dissipation of medical knowledge about causes of heart diseases, and human concern about physical fitness and health' (Rommetveit 1992: 32).

As Vološinov suggested many years ago (1973), linguistic meanings and themes interact with evaluations and form a linkage between signs and the ideological horizon of values and categories. Vološinov points out that in mastering a foreign language, when words are memorized with equivalents in the learners' native language, or when grammatical forms are practiced in rote exercises, they undergo signalization through the rigidity imposed by mere recognition. He suggests that in appropriate language pedagogy, forms should be learned not in 'relation to the abstract system of the language' (i.e. as signals), but 'in the concrete structure of utterance, i.e. as a mutable and pliable sign' (Vološinov 1973: 69, note 3). Vygotsky (1987) likewise makes a critical distinction between what he calls the stable meanings of the speech community and the personal sense that people construct as they interact with each other and with themselves in actual goal-directed communicative activity. We expand on Vygotsky's position in Chapter 3 on mediation.

Emergent grammar and supra-word constructions[9]

As Hopper's (1998; 2002) work on emergent grammar suggests, not only does dialogic interaction transform the meaning potential of language, it also shapes its formal properties. Though the program in emergent grammar is in its early stages of development, it nevertheless offers a perspective on linguistic structure that we find illuminating and which aligns with Rommetveit's and Bakhtin's framing of dialogue. The fundamental unit of analysis in emergent grammar, as with Rommetveit and Bakhtin, is utterance and not sentence. To illustrate the problem of the sentence as the unit of analysis for understanding dialogic interaction, consider what happens when an utterance consists of a single word, as in Wittgenstein's example of the stone mason's utterance 'Slab!'. Vološinov (1973: 110) asserts that linguistics has no appropriate category to capture the unit as an utterance and it can only define this word as a potential speech element. As he puts it, 'that extra something that converts the word into a whole utterance remains outside the scope of the entire set of linguistic categories and definitions' (p. 110). If the word were to be converted into a 'full-fledged sentence by filling in all the basic constituents (following the prescription: 'not stated, but understood'), we would obtain a simple sentence and not at all an utterance' (p. 110). He concludes that using the categories of linguistics draws our analysis away from the concrete structure of the utterance and 'into the abstract system of language' (p. 111). What is more, as McCarthy (1998: 16) notes, linguists, including applied linguists, have based much of their analysis of language structure on written language, given that this medium was 'easy to observe and to codify'. The codifications, according to McCarthy, then become the benchmarks against which any 'question or dispute about usage could be referred' (ibid.). Olsen (1994) likewise argues that written language has served as the metaphor for the spoken language. For instance, grammatical processes such as left-dislocation clearly belie the metaphor of the page, since spoken language does not have a left or right but is sequenced temporally; moreover, the term dislocation suggests that something is somehow out of place 'rather than perfectly normal, acceptable and significant in conversational terms' (McCarthy 1998: 62). [10] According to scholars working in the Prague School, structure is 'a whole determined by interdependencies not only *within* the structure but also *between* the structure

and its relevant social outside' (Marková 1992: 48, italics in original). This concept of structure extends to art, aesthetics, drama, social sciences, and, above all for our purposes, to language. Structures 'do not exist in vacuo' but 'are socially and culturally constructed and their change is determined by the social and cultural phenomena in which they are situated' (ibid.).

Hopper (2002) argues that the notion of grammar, at the core of much linguistic theorizing, arose, in an interesting irony, from the pedagogical efforts of the Greeks to make 'their language known to outsiders' as well as to impose 'a degree of uniformity among its diverse users'. In essence, grammar represented the Greeks' attempt to simplify for foreigners the complex process that the natives went through as they learned the forms of their language 'one by one, in specific contexts'. Over the course of centuries, according to Hopper, the addition of layers of terminology (for example, syntax, morphology, morphophonemics) has 'successfully disguised the fact that rules and paradigms are in origin nothing but short cuts to language learning'. For Hopper the grammar of theoretical linguistics is not the aprioristic construct that necessarily underlies communicative performance, but is 'a by-product' of communication, an epiphenomenon; it is, in other words, 'the name for certain categories of observed repetitions in discourse' (Hopper 1998: 156). This Hopper calls 'emergent grammar'. Clarifying the often confused terms 'emerging' and 'emergent', Hopper notes that 'emerging … means "in the course of development toward completion"; "emergent" by contrast suggests a perpetual process in which movement toward a complete structure of some kind is constant but completion is always deferred. Linguistic structure is intrinsically incomplete, a work in progress, a site under construction' (2002). Emergent grammar offers a counterpoint to the 'fixed code' approach that argues for a stable linguistic system of form to meaning relations: 'A language is not a painting-by-the-numbers canvas with a scheme laid out in advance … rather it is put together fragment by fragment in scenes of social interaction, starting in infancy' (2002).

Along similar lines, Vološinov (1973: 81) states that language 'endures, but it endures as a continuous process of becoming', it flows and rather than being tossed like a ball from

one generation to the next, each new generation enters into the stream of incessant communication. Importantly, an a priori or fixed-code theory of grammar is necessarily monologic in that it postulates an ideal perfect knower in a homogeneous speech community (Hopper 1998: 161). Vološinov (1973: 81) argues that the monologic tradition in linguistics reifies language and treats it as 'if it were dead and alien' and thus moves it outside of 'the stream of verbal communication'.

Hopper situates his theorizing squarely within the dialogic communicative perspective in arguing that emergent grammar is not 'a general abstract possession that is uniform across the community, but is an emergent fact having its source in each individual's experience and life history and in the struggle to accomplish successful communication' (Hopper 1998: 164). Hopper's perspective is compatible with a position known as 'process ontology', which claims that process 'is fundamental, and entities [including structures of any kind (our insertion)] are derivative or based in process' (Sawyer 2002: 286). In Hopper's theory, the process is communication and the entity derived from this is linguistic structure, or grammar. Grammar for Hopper is 'a set of sedimented conventions that have been routinized out of the more frequently occurring ways of saying things' (Hopper 1998: 163), and is assembled 'fragment by fragment' as we increasingly participate more extensively and intensively in social activities. This does not mean that grammar is not systematic; however, its systematicity arises from memory of things past—a 'collection of prefabricated particulars, available for use in appropriate contexts and language games' (Hopper 1998: 164). Development is constant and potentially unending. Importantly, we mold and shape the language as we move through various discursive activities, 'relying on similarities to previous occasions of talk to keep us going, and accumulating stores of experience to be used the next time a similar occasion presents itself' (Hopper 2002). Communicative repertoires like human language are 'shared by speakers to the extent that speakers have common cultural experiences of communication, experiences that include not just speech but also the types of social action—the 'scenes'—in which particular kinds of utterances figure' (2002). Conceiving of language as emergent parallels closely Vygotsky's thinking on higher forms of

consciousness. It is never complete, always (potentially) developing as we move into new activities and gain access to new cultural artifacts, including, as we will argue in later chapters, languages beyond the first.

Using corpus linguistic methodology, Hopper illustrates language as an 'interactive phenomenon' through an analysis of pseudocleft utterances—sentences that begin with a WHAT word + (NP/subject if the WH is not the subject) + verb + *is/was* + NP/object, as in 'what this country needs is a good five-cent cigar', and 'what they do in the afternoon is take long walks'. Based on his analysis of a corpus of spoken English, Hopper (2002) notes that so-called canonical pseudoclefts rarely occur in actual communicative encounters. He shows that the great majority of pseudoclefts occurring in spoken language corpora are formulaic and fragmentary. The verb in the WH-clause is almost always 'do' or 'happen', with 'say' as a much less likely possibility. When other verbs are selected, they usually appear in fixed phrases such as 'what I suppose is …', 'what I mean is ...'. In communication, the WH-clause is often followed by an entire sequence of phrases and clauses rather than an NP. Moreover, pseudoclefts may be listener- or speaker-centered, in that they may alert the listener to attend to the next piece of discourse, and frequently, impart an air of authority about what follows: speakers often throw them in to gain processing time to construct an idea while staving off interruption from the interlocutor (Hopper 2002). [11] According to Hopper, the standard account of pseudocleft as primarily a focusing feature is not sustained in corpora of spoken English.

Further examples of the emergent nature of spoken dialogue are what McCarthy (1998: 64) refers to as 'situational ellipsis', a typical feature of spoken English, as in the following, where a speaker is gathering personal items for a friend prior to going out and utters: 'Handbag is it, what else then?' [12] The so-called ellipted element in this case is the possessive 'your'. However, from the dialogic perspective of emergent grammar, there is in fact, nothing at all missing from the utterance. Subjects may also be ellipted, as in 'Put the phone in as well for you, did they?' produced by a speaker commenting on the listener's unanticipated benefit of receiving a free phone line as a result of having participated in a

consumer survey. In this case, the subject is realized as part of the tag question (McCarthy 1998: 65). Finally, do-support verbs and subjects may also be deleted in spoken interaction, as in 'Think it's your house or something?' produced by a speaker jokingly commenting on the listener's use of an item in the speaker's apartment (McCarthy 1998: 64). Of course, in all of the examples, we speak of ellipsis of elements, as if the elements had originally been there or are there underlyingly and then are deleted in the actual production of the utterances in question. However, this is a consequence of the jargon inherited from linguistic theory which posits underlying forms that are deleted in certain contexts. The claim of emergent grammar is that nothing is missing or deleted in the examples just considered; it is that interlocutors intentionally combine linguistic forms and contexts to produce utterances that give rise to specific local meanings (Hanks 1996: 120). In communicating, then, 'actors continually reach beyond themselves and the pre-established forms of language to create meanings that were not there before' (Hanks 1996: 121).

A last issue we wish to address in this section is the salience of supra-word constructions, sometimes referred to as lexical strings or formulaic expressions. As larger units of analysis, such utterances are simply 'concrete linguistic entities' (Tomasello 2003: 326) that can include chunks, item-based constructions, and even larger stretches of discourse. Supporting Tomasello's emphasis on utterance-level units, Sinclair (1991), a founder of modern corpus analytic methods and research, has divided communicative activity into two groups termed the 'open choice principle' and the 'idiom principle'. The former has been the concern of most linguistic research (for example, rule-governed grammar) while the latter, comprised of chunks, collocations, and repertoires, has received considerably less attention. However, as Schmitt and Carter (2004) and Wray (2002) have demonstrated in recent corpus analytic research, the prevalence of recurrent multi-word and clausal sequences is enormous.

In a review of research on what they term formulaic sequences, Schmitt and Carter (2004: 1) describe work by Erman and Warren (2000) in which 58.6 per cent of spoken English and 52.3 per cent of written English are comprised of 'formulaic sequences of various types'. (See also Bolinger 1976, for a prescient and early treatment of this issue.) Similarly,

Schmitt and Carter reference corpus research by Jackendoff (1995) which suggests that formulaic sequences are of equal or greater significance than single lexical items. While the prevalence of formulaic sequences has been empirically established, it is encouraging to also note that psycholinguistics research indicates the psycholinguistic validity of formulaic sequences (see Schmitt, Grandage, and Adolfs 2004) and suggests that L1 and L-n learners are exposed to an enormous number of 'prefabricated' expressions from which they create communicative heuristics. It is our opinion that the massively empirical corpus-based research program examining formulaic sequences supports the emergent grammar and usage-based approaches to language structure and its development that we have discussed above.

From the perspective of emergent grammar, then, learning an additional language is about enhancing one's repertoire of fragments and patterns that enables participation in a wider array of communicative activities. It is not about building up a complete and perfect grammar in order to produce well-formed sentences. Speakers are able to regularly shape their communicative artifacts to fit their own meaning-making needs. Grammar is at their service and not the other way around. We address this topic from a pedagogical perspective in Chapter 11.

The role of language in Vygotsky's theory

The theoretical perspective on language that we presented in the preceding discussion is very much in line with Vygotsky's position on the role of linguistic activity in the development of higher mental functioning. Although we will return to this topic in later chapters, in particular those dealing with mediation, inner and private speech, and activity theory, we would like to briefly consider here how Vygotsky's theorizing meshes with the LCA perspective.

As we have said, SCT is in part a psycholinguistic theory which assigns concrete communicative activity a central role in mental development and functioning. In his early

writings, Vygotsky's view of the linguistic sign was very much in line with Saussure's. He considered the sign to have both an indicative and a symbolic function, with the former predominating in the early stages of ontogenesis and the latter coming to the fore in later development (Vygotsky 1981). Thus, in early child–adult communicative interaction, the adult's words do not serve to categorize or abstract features of objects in the world; rather they function 'to direct a child's attention to an object' (Wertsch 1985: 97). Vygotsky pointed out, for example, that this function is analogous to tying a knot in a string around one's finger in order to remember (call attention to) something. Once the symbolic function of signs comes into play, children develop the ability to abstract features of objects, generalize these into culturally determined categories, and ultimately form relationships among the categories (Wertsch 1985: 97). Thus, children come to understand and relate to the world in which they live on a conceptual rather than an exclusively empirical basis. Prior to developing a conceptually-based mental system, children's knowledge is grounded in their primary empirical experiences in the world. This experience is largely non-reflective and therefore invisible to children. Once they begin to think conceptually, children are able to reflect upon and therefore gain conscious control over their mental activity. In this way, memory, attention, planning, learning, and rational thought become voluntary.

For Vygotsky, the key that links thinking to communicative activity resides in the double function of the sign, which simultaneously points in two directions—outwardly, 'as a unit of social interaction (i.e. a unit of *behavior*)', and inwardly, 'as a unit of thinking (i.e. as a unit of *mind*)' (Prawat 1999: 268, italics in original). In this sense, signs, or more appropriately put, the meaning of signs, possess reversibility in that they 'can act upon the agent in the same way they act upon the environment or others' (Lee 1985: 81). Similar to Vološinov/Bakhtin, Rommetveit, Hanks, Wittgenstein, and others within the LCA framework, Vygotsky realized that the Saussurian sign, as a unit of communication and thinking, was far too inflexible to the extent that it assumes stable meanings that are always and everywhere the same for all members of a speech community. In his later writings, Vygotsky argued for a dialectical tension between the stable meaning of linguistic signs[13], and an unstable,

precarious element (Prawat 1999: 269) that emerges as people engage in specific concrete communicative and psychological activity. In fact, Vygotsky characterizes this distinction in a way that is reminiscent of Rommetveit's notion of meaning potential: 'the word considered in isolation and in the lexicon has only one meaning. But this meaning is nothing more than a potential that is realized in living speech. In living speech this meaning is only a stone in the edifice of sense' (Vygotsky 1987: 303). Further on in the same text, Vygotsky remarks that 'in spoken language as a rule we go from the most stable and permanent element of sense, from its most constant zone, that is, the meaning of the word, to its more fluctuating zones, to its sense in general (pp. 304–5). Vygotsky refers to the stable element of a sign as its meaning and to its emergent and unstable element as its sense. According to Davydov and Radzikhov (1985: 54), Vygotsky's recognition of the psychological function of the linguistic sign (i.e. meaning) is 'one of the most successful examples of the application of semiotic ideas in psychology'. As we will see in later chapters, it enabled Vgotsky to make the connection between higher culturally organized psychological functions (i.e. voluntary attention and memory, planning, rational thinking, learning) and lower, biologically endowed, functions (Davydov and Radzikhov 1985: 53; Thorne forthcoming).

Overview of the volume

The primary concepts within SCT include the genetic method, mediation, internalization, and the zone of proximal development. An additional concept, activity, which was discussed by Vygotsky in several of his writings, has recently emerged as a theory in its own right—activity theory. Each of these concepts is directly relevant to the SCT project on L2 development and as such are addressed in separate chapters. To do full justice to the theory and to benefit the reader unfamiliar with its concepts, we precede several of the L2 chapters with a chapter that explicates the theoretical construct and reviews some of the general SCT

research relating to it. SCT, grounded as it is in material dialectics, argues that the acid test of the theory is the extent to which it can effect change in human practical activity (i.e. praxis). In other words, the value of the theory resides not just in the analytical lens it provides for the understanding of psychological development, but in its capacity to directly impact that development. Consequently, and as Vygotsky argued, it is imperative to consider the pedagogical implications of the theory, which we do in two full chapters as well as in significant portions of two others.

Chapter 2 focuses on what is termed the 'genetic method' and outlines Vygotsky's writings on the four genetic domains (genetic defined here as historical time frames) through which one can observe mental functioning and its development. Ordered by time span, these include 1) 'phylogenesis' of modern humans as a species, 2) 'sociocultural' development of human cultures over historical time, 3) 'ontogenesis' of individuals over the life span, and 4) 'microgenesis' or development of mental functions and processes over shorter periods of time. The ontogenetic and microgenetic domains have understandably received the greatest attention in L2 research and hence receive the majority of our attention.

Chapters 3–5 address the issue of 'mediation', the observation that humans do not act directly on the world—rather their activities are mediated by symbolic artifacts (for example, language, literacy, numeracy, concepts, and institutions) and material artifacts and technologies. The first of these chapters, Chapter 3, explicates the central claim that everyday cognition, termed higher-order mental functions in the theory, is enabled and organized by historical and qualitative aspects of symbolic artifacts, material artifacts, and social relationships. This emphasis within the theory embraces a wide range of research including linguistic relativity, distributed cognition, private speech, and concept formation. Chapter 4 concentrates on speaking, gesture, writing, and the extent to which L2 learners are able to appropriate new conceptual systems in a second language. The discussion is divided into two parts, the first on self-mediation through private speech, and the second on other-mediation through social speech. Chapter 5, the final chapter on mediation, explores the ways in which culture, as represented in conceptual artifacts such as metaphors and lexical networks,

mediates cognition. Drawing heavily on cognitive linguistics, in particular metaphor theory, we explicitly address the question of the extent to which L2 learners are able to appropriate a new conceptual system in an additional language learned later in the life span (from adolescence on).

Chapters 6 and 7 examine 'internalization', the processes through which interpersonal and person–environment interaction forms and transforms one's internal mental functions. In Chapter 6 we provide an overview of the theoretical work on internalization, including its differentiation from the term 'appropriation'. Chapter 7 addresses research on internalization, focusing particularly on private speech and its relation to L2 development. Here we refer to this function of private speech as language-focused private speech in order to distinguish it from the private speech function discussed in the chapters on mediation. We also introduce Tomasello's (2003) usage-based model of language learning—a model that is very much in line with the LCA framework we outlined above—and argue for its relevance for L2 development.

Chapters 8 and 9 concern activity theory, a later development within Vygotsky-inspired research that emphasizes cultural activity as the principle that relates external forms of social life to individual and collective psychological functioning. Chapter 8 describes the relationship of activity theory to Vygotsky's earlier writings and summarizes the historical development of Vygostkian and post-Vygotskian research. The chapter culminates with a discussion of recent efforts to provide conceptual tools that can more sensitively address dialogue, a multiplicity of participant perspectives, and the interrelations between defined activity systems. Chapter 9 provides a discussion of L2 research that utilizes activity theory as its framework and also includes a case study that describes the use of activity theory for pedagogical innovation.Chapter 10 presents an historical overview of the zone of proximal development (ZPD), arguably the aspect of Vygotsky's work that has received the greatest attention globally. The ZPD describes the difference between the level of development already obtained and the cognitive functions comprising the proximal next stage that may be visible through participation in collaborative activity. The ZPD is not only a model of

developmental processes, but also a conceptual tool that educators can use to understand aspects of students' emerging capacities that are in early stages of maturation. We also argue that the ZPD, scaffolding, and assisted performance are markedly distinct concepts that have been mistakenly conflated. The chapter includes an examination of the ZPD in Vygotsky's own work, the secondary literature, and the complex, often misunderstood, nature of the ZPD as it is employed in contemporary L2 research and pedagogy.

Chapters 11 and 12 form the concluding elements of the book. They describe two of the pedagogical extensions of SCT with regard to instructed L2 learning. Vygotsky insisted that schooling had to be organized around 'scientific' concepts, which represented the most systematic and complete conceptual understanding of the object of study (for example, math, biology, physics, arts, music, language, etc.) available at the time. This knowledge provides the foundation for a continuation of development that was begun in the everyday world as children acquired concepts spontaneously and unreflectively in the process of participating in their sociocultural communities. In Chapter 11 we consider the pedagogical approach pioneered by Vygotsky's student P. Gal'perin known as 'systemic theoretical instruction', especially as it relates to L2 instruction. Here we focus on the extensive study carried out by Negueruela (2003). In Chapter 12 we discuss 'dynamic assessment' (DA), a pedagogical approach grounded in the ZPD, and review the relatively few L2 studies that have been conducted within this framework to date. DA argues that assessment and instruction form an inseparable dialectical unity. As such it takes up the goal of bringing L2 assessment and teaching into a closer nexus, while at the same time challenging traditional psychometric principles of assessment.

Notes

[1] David Bakhurst characterizes the production of objective culture this way: '… by acting on natural objects, human beings invest them with a significance or "ideal form" that elevates them to a new "plane of existence". Objects owe their ideality to their incorporation into the aim-oriented life activity of a human community, to their *use*. The notion of significance is glossed in terms of the concept of

representation: Artifacts represent the activity to which they owe their existence as artifacts.' (1991: 183).

[2] While we do not present a contextual biography of Vygotsky in this text, there are many available. Two treatments can be found in van der Veer and Valsiner (1991) and Yaroshevsky (1989). Shorter expositions on Vygotsky's life, research, and immediate colleagues can be found in Wertsch (1985) and Minick (1997), as well as in the introductory chapter of Lantolf and Appel (1994). Book-length intellectual biographies of A. R. Luria, Vygotsky's most important and influential colleague, are Homskaya (2001) and Vocate (1987). Additionally, Luria (1979) has produced his own intellectual autobiography.

[3] As is well-known, Saussure recognized the diachronic dimension of language, but this was assigned secondary status within scientific linguistics (Crowley 1996: 20).

[4] Wittgenstein's *Philosophical Investigations* was originally published posthumously in 1953, two years after his death.

[5] Drawing on a long lineage that Halliday (1985), for example, initially locates in the work of Malinowski, the ways in which coherence is achieved among communicating actors has been shown to be a complex and situated process. Malinowski's extensive research among the Trobriand Islanders resulted in the subsequent development of 'context of situation' (1923), a notion that, by his own account, is generative of Halliday's use of the term 'context'. A telling example is the navigation talk of Trobriand Islander fishermen that Malinowski reports. The fishermen raced among themselves while also communicating with people on shore. Malinowski notes that these utterances would be incomprehensible were it not known that the fishermen were negotiating passage through dangerous reefs and shoals on their return from the sea.

[6] Some scholars believe that Bakhtin and Vološinov are the same person and that in fact the latter was a pseudonym for the former. Other scholars disagree and believe they were two different individuals. No matter, it is clear that even if they were different people, they were closely aligned in their thinking on language and its relationship to human thinking. For our purposes, we will consider Bakhtin and Vološinov to be the same person.

[7] Bakhtin's notion of addressivity finds an interesting parallel in Marx's economic writings in which he talks of productive-consumption and consumptive-production (Marx's early writings), by which he meant any act of production of goods always presupposes and is influenced by the potential consumption of these goods; the same holds for the consumption side of the equation. Neither takes place in absolute freedom without awareness and influence of the other.

[8] Since the discussion is rather lengthy, we take the liberty of avoiding continual referencing of page numbers from Rommetveit (1992) where the example is given. The interested reader can find the discussion on pp. 25–33).

[9] Recently, SLA researchers have begun to debate the merits of what is called 'emergentism', 'an approach to cognition that stresses the interaction between organism and the environment and that denies the existence of pre-determined, domain specific faculties and capacities' (Gregg 2003: 95). N. Ellis (1998; 1999; 2001; 2003), in particular, has been instrumental in promoting an emergentist account of SLA. The debate is interesting and informative, but we do not think that Hopper's concept 'emergent grammar' has much to do with N. Ellis's position on acquisition. On the other hand, Hopper's linguistic proposals might provide a viable model of language—something which Gregg (p. 108) sees as problematic—for cognitive emergentism. It is certainly worth exploring.

[10] Harris (1996) also argues that linguistics needs to describe speech as a temporal rather than a spatial phenomenon.

[11] Describing pseudoclefts in more detail, Hopper discusses the management of discourse, the ability to 'project future segments of talk and control the pace of delivery', as having two features:

1 listener-centered: creating a frame of reference for the upcoming portion of talk as action (using the verb do—'what they've done is …') or event (with the verb happen—'what happened was that …'), and

2 speaker-centered: using the pseudocleft as 'discourse junk' to gain a few seconds to organize the spate of talk to come. In such cases, attitudinal verbs can be used to accentuate affective stances. Hopper illustrates other speaker-centered functions of the pseudocleft, such as using this repertoire to hold the floor while recasting ones argument ('what we're gonna do is, or what I'd like to do, I think, is to …') or to make one's comment seem authoritative (such as 'what you should do, though, is …').

[12] The examples from McCarthy (1998) are from the CANCODE corpus of spoken British English.

[13] There has been considerable debate among sociocultural theorists as to whether the appropriate unit of analysis of mind and communication is the sign realized as individual words, as seems to be the position maintained by Vygotsky, or whether the proper unit needs to more expansive. Some scholars insist that the appropriate unit of analysis is the sign construed as utterance, which may be a single word, but which may also comprise a string or words of varying length (Wertsch 1985 and 1998). Others believe that Vygotsky's original designation of the word as the appropriate unit should not be abandoned (Tulviste 1991). Without going into the details of the debate, we adopt the perspective which argues for utterance as the unit of analysis that most appropriately captures the connection between thinking and communicating. The advantage of this position is that it includes the word within its scope, but at the same time it allows for a broader possibility.