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**Interview: A Special Talk with
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- **Presumably there is more than a metaphor behind the ecological approach to language learning. What theory of language is behind the ecological approach to language learning?**

One can say that all theories are metaphors for aspects of reality, or ways of constructing reality. Some theories are backed up by numbers, such as statistical formulas, but numbers too are metaphors for reality. Be that as it may, some metaphors are more useful than others, or one might say, can do more work than their proponents consider useful than other metaphors can. For example, the “big bang” is a metaphor for the creation of the universe, and many scientists have long considered it a useful start for the development of theories about galaxies, solar systems, and so on. Although the “big bang” metaphor is now the dominant one, others may emerge in the future that seem to be more fruitful.

The field of language learning is no exception to the observation just made. There are several different metaphors around that are used to explain it, or parts of it, and these metaphors may sometimes be complementary, and at other times contradictory. Some metaphors that have been used in the past, and are used today, include the computational metaphor, the information-processing metaphor, the behavioral metaphor, the creative construction metaphor, and many other ones. The

ecological metaphor is thus one among a long list of metaphors for language learning.

What theory of language is behind it? There is no easy answer to this question. In general there are structural, functional, cognitive, biological, social, and perhaps a few other ways of looking at language. I don't know at what point any of these can claim to achieve the status of "theory," because that depends on how one defines that word, and in practice that is not at all an easy thing to do (think of words like "model," "approach," "hypothesis," "belief system," "ideology," "paradigm," and so on; what do all these words mean, and how do they relate to the word "theory?"). But let me suggest some of the characteristics of an ecological perspective on language.

1. Language is inseparable from the contexts in which it is used.
2. Language is dialogical.
3. Language is embodied, not brain-resident.
4. Language is part of processes of action, perception, emotion, communication, and thinking.
5. Language is a part of the science of semiotics.

I am not sure if the above characteristics constitute a "theory of language" in the traditional sense, but it is certainly a coherent view of language. These five points (and others could be added) emphasize that language is a form of action and that it cannot be separated or isolated from the environment. Language study must take as a point of departure the situatedness of language in the real world, including the physical and the social world, as well as the cultural practices within which it operates.

➤ What theory of learning is behind the ecological approach?

Learning is a whole-body, situated phenomenon. It does not just occur in the brain on the basis of input that is processed mentally and then represented in a linguistic brain module. An ecological approach assumes, with sociocultural theory, that language learning occurs in and through social interaction, when

learners engage in challenging and meaningful activities, assisted by teachers who support their autonomy. Learners learn with their minds, bodies, senses, emotions, and aspirations.

➤ **What kinds of research findings support this approach to language learning?**

At present most of the support for an ecological approach to language learning comes from researchers in sociocultural theory, and from L1 acquisition researchers. In addition, there are findings in educational research that strongly suggest that bilingual and intercultural approaches to learning are more beneficial to a person's development than monolingual and monocultural ones. There is also research that indicates that multisensory approaches—those that involve all the senses, rather than sight or hearing alone—to education are effective and sometimes necessary for developing higher cognitive skills.

➤ **What types of classroom activities go along with the ecological approach?**

As mentioned earlier, an ecological approach favors classroom activities that encourage learners to be active and engaged not only with their brain, but with their bodies, their senses, and their emotions as well. This means that sitting at a desk copying texts, filling in gaps in drills, or listening to grammatical explanations (to mention but a few common activities in language lessons) may not be the most efficient use of classroom time.

In an ecological approach, the dominant image is not one in which input is directed at the learner who receives it and processes it in the brain. Rather, the image is an active learner who picks up the information he or she needs to do a particular job. For that reason, the most appropriate classroom activities are project-based, content-based, and task-based, or in more general terms, action-based.

➤ **Can you describe the semiotic approach to language?**

Language, as I mentioned earlier, is part of the science of semiotics, which governs the creation and use of signs. Signs are the meanings that living organisms construct by virtue of their activity in the world. Linguistic signs relate to all other signs in the physical and social world, and get their meaning from their context of use. Meanings do not sit inside words or sentences like pots on a shelf, they are constructed in every encounter and put into words and sentences. Linguistic signs go together with other, non-linguistic signs in order to create meaning. For example, think of the word “this” which is accompanied by a pointing gesture. Without the gesture the word “this” would be meaningless.

➤ **How does it relate to ecological approaches to language learning?**

Ecology is the totality of relationships among all organisms and their environment. Our relationships with each other and the world around us are created and understood by language and other resources for meaning making, including cultural tools, structures, and artifacts of various kinds that people have constructed to shape their world. Learning language involves using language with increasing effectiveness to find our place, identity, and agency in a particular world with a particular physical, social, and cultural-historical structure, in other words, a particular ‘*linguaculture*’ as Michael Agar has called it.

➤ **Can you explain the concepts of *emergence* and *affordance* and their place in the ecological approach?**

The term emergence refers to the processes that take place when simple elements combine in some way to form larger, complex structures that function in more powerful and qualitatively different ways from the simple elements that constitute the whole. Compared to the functions of each element, the whole is dramatically transformed in terms of the capacities and potential, and cannot be explained by or reduced to the original elements. The totality takes

on a whole new life, we might say, one that cannot be predicted by looking at each small part. Well-known examples are ant colonies, the hexagonal shapes of honeycombs, the flight patterns of dense flocks of birds, and the growth of cities. Many of such examples are described in an interesting book by Stephen Johnson called *Emergence* (2001).

Language itself can be seen as one such emergent system, since it is always in a process of change, decay, growth, creation, and recreation. One can also say that learning language is emergent learning. To take the example of grammar, the traditional approach is to make a list of rules and pattern, sequence them according to some criterion or other, and teach them one after another, in cumulative fashion, thus gradually and steadily building up the learner's knowledge of the language. A number of researchers argue that language learning, first or subsequent, does not proceed in this fashion. One can indeed learn (memorize, store, and reproduce) vast numbers of rules, patterns, and vocabulary items, but the knowledge gained in this way can only be used to take traditional tests, and is of very limited value in everyday situations of language use. This is what the philosopher and educator Alfred North Whitehead long ago referred to as the *inert knowledge* problem (1929).

Language learning, from an emergentist perspective, is a special form of language using, one in which the purpose of the language-using activity has the result-intended or unintended-of increasing the learner's linguistic abilities. Teaching language is the activity of intentionally enhancing the learning aspects of the learner's linguistic activity. The idea here is that language-using activity itself leads to the emergence of grammatical complexity. That is, grammar is the result of using language, rather than the prerequisite for using it (see the work of Paul Hopper, Diane Larsen-Freeman, among others). This view of language learning as emergent is by the way not intended to suggest that explicit teaching and learning are not useful. Indeed, there are at least two reasons why such explicit work may be necessary. One relates to L1 development, the other to L2 development.

First, it is often said, without much empirical backing, that at the age of five children have basically mastered their native

language, the rest being, so to speak, icing on the linguistic cake. This is demonstrably false, a fact already noted by Vygotsky, who said, “the old conception that the development of the child’s speech ... is completed at the age of five years ... is wrong. Only the preliminary work is completed by the age of five years” (1987, p. 323). Learners need many years at school and countless hours of hard study to that the second or foreign language would be an automatic result of a certain amount of conversation or input.

Secondly, the foreign or second language learner has already acquired systems of concepts and thoughts in his or her own language, and cannot—and can never—see the L2 in the same way as a child sees the L1. Once again citing Vygotsky, “the conditions that characterize the learning process [of the foreign language] differ profoundly from those that characterize the learning of the native language” (1987, p. 179).

The notions of emergence and affordance therefore must not be seen as alternatives to explicit teaching and focused study. Rather, teaching and studying must be motivated and made relevant by real-life needs of the students in terms of projects, tasks, and activities that have tangible and demonstrable goals and outcomes. In this way, the linguistic resources that are taught and studied are tied directly to the purposes of their existence and the reasons for their use.

➤ **What is *prolepsis* and why do you consider it essential to language learning?**

Prolepsis has been defined as a foreshadowing of the future in the present. It is often used in novels, plays, and music, when the artist introduces elements that the reader or listener cannot know yet, but that point to things to come. The creator treats the audience as if they know much more than they actually do at this point in time. In this way, they are invited into a new semiotic space created by the author or artist. An expectancy is created that sharpens the cognitive and social processes and focuses them on the knowledge and skills yet-to-achieve. To paraphrase Vygotsky, the good teacher treats the learners as if they had knowledge and skills that in fact they do not yet have, but that they will have in the

future. This is the precondition for the development of that knowledge and those skills.

➤ **What is the relationship between Vygotsky's zone of proximal development (ZPD) and the notion of scaffolding in the ecological approach?**

The relationship between these two constructs is a very close one. The notion of the ZPD comes from Vygotsky, and the notion of scaffolding, as we use it nowadays, comes from the work of Jerome Bruner. It is important to note that Vygotsky never used the word scaffolding, or any term that might seem to relate to it. Yet, in terms of the basic principles according to which learning occurs, the constructs are similar. In the ZPD, the process is referred to as gradual internalization of functions first used interpersonally; in scaffolding, the learners become increasingly autonomous. These two processes are basically the same, just expressed in different ways. One thing we must watch out for is not to regard the ZPD and scaffolding as just the design of activities or structures to assist learners. Both terms refer to the dynamic interaction that occurs in the settings that are designed to facilitate such interaction.

Our lessons are a dynamic interplay between structure and process. We set up lesson plans and design activities, and during the lesson these structures that we have created facilitate moment-to-moment processes of interaction and cognition. These moments are the learning opportunities our learners encounter. Therefore, the wisdom of our work is to plan for the unpredictable: we set up the structures to facilitate the interaction and the learner's agency, and when unexpected things happen we scaffold the emergent initiatives of the learners, so that they can reach higher levels of language use.

➤ **What is the relationship between Krashen's ideas on language learning and the ecological approach?**

Krashen presents five interrelated hypotheses that have a great deal of plausibility. Clearly, second language speakers that have learned a lot of grammar rules often tend to monitor their

production via these rules, and this tends to slow down their speech or make it difficult for them to communicate, especially in spoken conversation when there is little time to reflect on formal aspects of language. Similarly, learners of course need to receive input, that is, they have to hear and understand things that are said to them. Their emotional involvement is also important. And so on. These are all common-sense notions that are worth remembering, since they are often forgotten in instructional practices.

A crucial ingredient of learning, perhaps the most basic one that is missing in Krashen's work is the social and physical activity of the learner. Krashen's learner could be interpreted as one who passively receives input that arrives in comprehensible form (the term used is *comprehensible*, not *comprehended*, and there is a big difference here in terms of who does the work), and then unconsciously processes the linguistic aspects of the input for the purposes of acquisition.

Instead, the ecological approach assumes an active learner who moves around (mentally and physically) and picks up relevant linguistic information in the environment. The teacher's role is to make abundant resources available, and to guide the learner's perception and action towards affordances that can become useful and meaningful. The process is thus reversed from the model that Krashen proposes: instead of comprehensible input that is provided to the learner readymade for processing, the active learner seeks out affordances that become meaningful (and thus comprehensible) in the context of his or her activities.

➡ **Is the ecological approach simply a metaphorical way of making sense of various seemingly unrelated or conflicting research into the nature of language and language learning or what has sometimes been termed the post-method era?**

The ecological approach (or world view) is intended to give a coherent perspective on a great variety of human pursuits. In our field of second/foreign language development, it relates to those approaches that emphasize the role of context, activity, perception, and action. It also illuminates issues relating to the development of identity and autonomy.

As for the “post-method era,” I am not sure that such an era actually exists. In fact, I am not sure that a “method era” ever existed. It is true that over time there have been a number of named methods (direct method, audiolingual method, suggestopedia, the silent way, etc.), but it is less clear that these methods have very often been applied consistently and in any pure way over a long period of time. They have been used by many teachers, mixed and matched and combined with one another, in courses that have an underlying constancy of practice that is basically eclectic.

When one looks at course books or advertisements for language schools, it is more likely that they will advertise more broadly based ways of teaching as “the communicative approach,” “the immersion approach,” “active learning,” “task-based learning” or some such less specific characterization. This has been the case for decades, and I have not seen any significant change in recent years. Of course, one can quibble about the precise differences between *approach* and *method*, but I think that when we use the latter, we refer to a rather recognizable, if not branded and packaged, way of organizing the syllabus and conducting lessons. This branding and packaging still exists. Also, the communicative approach, content-based teaching, immersion, and many other approaches or practices of teaching exist today as they have done for a long time. There is thus not any “post-anything,” because it is not clear what the “post” in post-method is rejecting, except perhaps named methods that exist in language teaching methodology textbooks much more clearly and distinctly than they do in classroom practice.

Language learning ecology is not an alternative to any method or approach, but it encourages the teacher and learner to focus on the things that I have mentioned: meaningful activity, perception, context, autonomy, and identity. More than a specific set of practices, it refers to the ways in which teachers and learners relate to one another, how language is integrated into meaningful activity, and how learners develop a sense of autonomy and voice in the second or foreign language. In the pursuit of these goals, any method and any approach can provide useful ideas to enrich classroom practice.

☉ **What advice do you have for English teachers interested in researching English learning from an ecological perspective?**

This is a big question. Offhand, I would say that both quantitative and qualitative types of research can be relevant. The main requirement is that an ecological approach means that the context needs to be taken into account, not just as an afterthought, but as a defining feature of the learning process. This makes cause-effect or probabilistic kinds of research very complex, since there are so many factors that need to be taken into account. Selecting just one variable and excluding (or controlling) all others, as is done in laboratory research, is thus not ecologically valid. From an ecological perspective, learning must be examined within the context in which it occurs. The most obvious types of research that come to mind in this respect are action research (in which changes are introduced into a setting), case study research (in which a single case—a learner or a class, for example—is followed over a long period of time), ethnography (the description of the practices of people in specific settings), and conversation analysis (the study of people's interactions).

I recommend that teachers record (video and audio, where possible) lessons and analyze the interaction that occurs in them. This may be in the context of trying out something new (action research) or of following the progress over time of a single learner or a cohort of learners (case study). By studying the interaction, teacher/researchers can gain an understanding of how their plans, goals, ideas, and strategies actually work in practice. It is of course not possible to describe and analyze absolutely everything. We can analyze single events in great depth, or we can characterize a whole class more broadly. In many cases, such deep and/or broad description and analysis can be fruitfully combined with other sources of data, such as interviews with learners, teacher diaries, written work, and so on. In such cases we can speak of triangulation, i.e., the use of two or more sources of data or research tools in order to put our findings on a more secure footing.

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