Telling ELT Tales out of School

The ecology of language learning: Practice to theory, theory to practice

Leo Van Lier[a]*

[a] Monterey Institute, 460 Pierce Street, Monterey, CA, 93940, USA

Abstract

In this presentation I will look at language learning from an ecological perspective, an approach that focuses primarily on the quality of learning opportunities, of classroom interaction and of educational experience in general. Important pedagogical principles in an ecological approach are the creation of ecologically valid contexts, relationships, agency, motivation and identity. Each of these concepts will be examined and illustrated from a practical and a theoretical perspective, using data from a variety of contexts. In ecology, practice and theory are closely interrelated, and they are dynamic and emergent, never finished or absolute. Both are based on principles that are powerful and enduring, once teachers and learners make them their own.

© 2010 Published by Elsevier Ltd.

Key words: Ecology; theory; research; practice; agency; identity.

* *E-mail address*: lvanlier@miis.edu

1. Introduction

In this presentation I outline some practical and theoretical ramifications of an ecological approach. The ideas presented here are based on many years of work on language classrooms, language pedagogy, curriculum design, and exploring the interfaces between practice, research and theory. I started moving in the direction of an ecological approach in the late 1980s, especially after reading J. J. Gibson's book on the ecology of visual perception (1979), and the work of G. Bateson on the ecology of mind (1973). Later on I combined this with the semiotics of C.S. Peirce, after realizing that a theory of language and meaning was needed to complement an ecological approach to learning and teaching.

The central focus of this approach is *work*, academic, professional and pedagogical, and the work incorporates practice, research and teaching in equal measure. Furthermore, teachers, researchers and students are all participants in this work of teaching and learning.

Kurt Lewin famously stated that there is nothing so practical as a good theory. He was a social and organizational psychologist emigrated from the Soviet Union to the US, and he also argued that theory should not be separated from practice. However, we need to realize that there are often conflicts and friction between theoretical and practical pursuits. Ecology strives to overcome such conflicts. Although firmly grounded in theory and science, it is a very practical approach to real-life phenomena.

The reader is encouraged to look up a lithograph of Maurits Escher called "Three Worlds." This depicts the surface of a body of water upon which leaves float. Above the surface, we see reflected in the water the sky and trees. Below the surface we can just make out a big catfish. I like to use this image to illustrate that any utterance has a number of layers of meaning. It refers not only to the here and now, but also to the past and the future of the person or persons involved in the speech event, to the world around us, and to the identity that the speaker projects. This multi-level nature of the meanings the utterance is what Jan Blommaert (2006) refers to as "layered simultaneity." In other words, any utterance can carry several layers of meaning, just as there are three "worlds" in the Escher picture. First the world of the surface, the water with leaves floating on it. Second, the world below the water, with a big catfish faintly visible. Third, the world above, with sky and trees reflected on the water's surface. This image can remind us that every utterance embeds layers of historicity and identity, as well as presentness.

There are many examples of such layered simultaneity in our daily work of practice, research and theorizing. For example, in a content-based lesson about famous cases of brain damage (in the US, in a class of English language learners), a secondary school student, working in a group to produce a summary of a case that they had read, wanted to use everyday language to describe that a piece of metal had penetrated a worker's skull. The group wanted to use the word "penetrated," which she resisted, saying, "Why do we have to use such difficult words?" She added, "I *know* English." The teacher replied, "Yes, but *psychological* English." We can clearly see that the student's remark is multilayered. At the surface level she asserts her status and identity as a competent English speaker, not an immigrant who has yet to learn English (implicitly invoking her own history: I am a Latina, but I know English). At the same time she contests the reasons why she should use academic terms, and may not be convinced (yet) that her future academic success requires adding academic literacy to her communicative repertoire (see Walqui & van Lier, 2010, for details of this and other classrooms interactions). Thus, any utterance is layered in multiple ways, backward – invoking history and background, forward – looking towards the future, outward – relating to the world, and inward – relating to identity and personal cognition and emotions. In classrooms the types of interaction that predominate often strip the multilayeredness away from the discourse, resulting in utterances that do not allow the learners' voices to develop and diversify.

2. Central concepts in an ecology of learning

An ecological approach aims to look at the learning process, the actions and activities of teachers and learners, the multilayered nature of interaction and language use, in all their complexity and as a network of interdependencies among all the elements in the setting, not only at the social level, but also at the physical and symbolic level.

Space does not permit a full discussion of the major characteristics of ecology (see van Lier, forthcoming). Briefly listed, they are: relationships (rather than objects); context; emergent patterns; quality; value; critical perspective; variability; diversity; and agency (see van Lier, 2004, for further details). In this paper I will focus on just three of them: relationships, quality and agency. In a sense, focusing on these three aspects naturally brings the

others into the discussion, since they all form a natural unity, an interrelated network of properties of the wider environment. Pull one string, metaphorically speaking, and all the others will move in response.

2.1 Relationships

Ecology is the study of the relationships among elements in an environment or ecosystem, in particular the interactions among such elements. In the human sphere, we can distinguish relationships at physical, social and symbolic levels. These three levels interact in multiple ways and arrangements. To give an example, just saying, "look at that!" relates one person to another person through language (plus possibly a pointing gesture), and establishes joint attention to a particular physical property in the environment, perhaps a rainbow in the sky. Joint attention makes further linguistic utterances relevant, such as, "Wow!" and may invoke symbolic (cultural, aesthetic, superstitious) connections, further talk, jokes about crocks of gold, predictions about tomorrow's weather, and so on.

A simple everyday example such as the one above illustrates how multiple relationships are established in and among the physical, social and symbolic worlds in human ecosystems, and how language serves to establish, maintain and expand such relationships. The world is full of opportunities to establish relationships, and once again, aspects of the physical world, such as clouds, trees, rocks; the sociocultural world of artifacts (houses, roads, classrooms) and social communities (families, schools, soccer teams); and the symbolic world of ideas, histories, stories and belief systems, provide numerous affordances to engage in activities of various kinds. Affordances are relationships of possibility, that is, they make action, interaction and joint projects possible,

2.2 Quality

The notion of quality is paramount in all educational endeavors, yet there is hardly a concept that is more variously defined and structurally neglected. How do we define quality? Any answer is likely to be dependent upon personal preferences, past experiences, future aspirations, practical possibilities, and a host of other ingredients.

We know that there is a difference between standard of living and quality of life, even though there may be some relationship (Naess, 1989). Improving the standard of living involves different processes than improving the quality of life, even though they may correlate up to a point. In education, adhering to standards and quality of teaching/learning may be similarly related, yet not identical. For example, let's say that an educational system has put in place a well-considered set of standards. Let us further note that teachers and schools are held accountable for implementing these standards. How is this accountability assessed and enforced? In practice, the successful implementation of standards tends to be measured against average scores on standardized and system-wide tests. This means that ultimately the perceived success of an educational system is based on the quality of the standardized test. I would argue that such a standards > accountability > testing system largely bypasses the all-important notion of the quality of the educational experience, of learning opportunities, and the wellbeing of the learners. If this is the case, then systemic shifts would be required in the system to move it from a dependence on testing (for quality judgments) to a more direct appraisal system addressing, documenting and promoting the quality of educational experience.

2.3 Agency

I define agency in the final analysis as movement, a change of state or direction, or even a lack of movement where movement is expected. Movement can be cast in literal as well as in figurative ways. If I want to see a bird fly across the sky, I have to move my eyes. If I want to appreciate a piece of music, I may have to move my body with the rhythm, in order to "feel" the music. If I want to understand a story or a novel, I have to move my mind, my imagination, and my emotions. Thus, I may literally be moved by such a story. On the other hand, in certain settings I may deliberately refuse to move. I might be expected to participate in a conversation, but remain silent. That is also movement.

All of these are examples of agency, of the organism moving in order to live and grow. Agency is therefore a central concept in learning, at many levels an in many manifestations. It is a more general and more profound concept than the closely related terms autonomy, motivation and investment. One might say that autonomy, motivation and investment are in a sense products (or manifestations) of a person's agency.

A completely passive learner will not learn. A compliant (obedient, dutiful etc.) learner will learn, because he or she employs agency, if only at the behest of others. In this way learners who study a foreign language in school because it is required, will be able to have some success and to pass tests. However, in order to make significant progress, and to make enduring strides in terms of setting objectives, pursuing goals and moving towards lifelong learning, learners need to make choices and employ agency in more self-directed ways.

In addition to autonomy and related characteristics, agency is also closely connected to identity, and this emphasizes the social and dialogical side of agency: it depends not only on the individual, but also on the environment. In the classroom, an agency-promoting curriculum can awaken learners' agency through the provision of choices and the opportunity to work as a member of a learning community on interesting and challenging projects and puzzles (Allwright & Hanks, 2009).

Overall, then, learning is inseparably tied to agency. The employment of agency depends on a learning-conducive environment that allows and instigates a diversity of manifestations of agency at different levels. Not all agency is cut of the same cloth. It can be more individual or more social, it can be more creative or more routine, it can be more serious or more playful, and so on and so forth. There must be room in a learning environment for a variety of expressions of agency to flourish. The creation of such an environment is a major task of pedagogy. Once this is understood, the agency-rich environment can become the joint project of teachers and learners alike.

3. Conclusion

In this brief overview of some key aspects of an ecological perspective on language learning I have focused on three areas that are central: relationships, quality and agency. As mentioned, these are part of a larger set of ecological properties of teaching/learning contexts, as described briefly in van Lier, 2004. The short description in this paper highlights the view that all elements within an ecosystem (such as a classroom) are interrelated. Research often isolates particular pieces of the complex puzzle in order to study them in detail. However useful this may be, it obscures the dynamism of the actual teaching and learning work that goes on, and cannot show the emergent and contingent nature of that work.

In addition to selective aspect of learning and teaching, therefore, research that looks at the full complexity of the entire process, over time and space, in order to capture the dynamic forces that are at work. Such research can be called ecological, in comparison to the work carried out in complex ecosystems by biologists, oceanographers, climatologists, geologists, and so on. Useful models for such research are beginning to be developed, some of them highly technical and specialized (e.g., "Five Graces," 2009; Larsen-Freeman & Cameron, 2008), but several well known and long established research practices are also useful (e.g., case study, van Lier 2005; exploratory practice, Allwright & Hanks, 2009; narrative an (auto)biographical research, Norton, 2006, and a variety of interventionist forms of research, such as activity theory and action research, Reason & Bradbury, 2008). These approaches to research are likely to become much more prominent in the field of applied linguistics (and social science in general) and promise to yield a greatly enriched understanding of language learning and using.

References

Allwright, D., & Hanks, J. (2009). *The developing language learner: An introduction to exploratory practice*. London: Palgrave Macmillan.

Bateson, G. (1973). *Steps to an ecology of mind*. London: Paladin Books.

Blommaert, J. (2006). *Discourse: A critical introduction*. Cambridge: Cambridge University Press.

"Five Graces" Group (2009). Language is a complex adaptive system: Position paper. *Language Learning*, *59*(1), *Supplement*.

Gibson, J. J. (1979). *The ecological approach to visual perception*. Hillsdale, NJ: Erlbaum.

Larsen-Freeman, D., & Cameron, L. (2008). *Complex systems and applied linguistics*. Oxford: Oxford University Press.

Naess, A. (1989). *Ecology, community and lifestyle*. Translated and edited by D. Rothenberg. Cambridge: Cambridge University Press.

Norton, B. (2006). Identity: Second language. In K. Brown (Ed.), *Encyclopedia of language and linguistics, Second Edition, vol. 5* (pp. 502-507). London: Routledge.

Reason, P., & Bradbury, H. (Eds.). (2008). *Sage handbook of action research: Participative inquiry and practice* (2nd ed.). London: Sage Publications.

van Lier, L. (2004). *The ecology and semiotics of language learning: A sociocultural perspective*. Boston: Kluwer Academic.

van Lier, L. (2005). Case Study. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 195-208). Mahwah, NJ: Erlbaum.

van Lier, L. (forthcoming). Language learning: An ecological – semiotic approach. In E. Hinkel (Ed.), *Handbook of second language teaching and learning (Second Edition)*. Mahwah, NJ: Erlbaum.

Walqui, A., & van Lier, L. (2010). *Scaffolding the academic success of adolescent English language learners: A pedagogy of promise*. San Francisco: WestEd.