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INTRODUCTION

Organizing Principles of Learner Varieties

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This special issue presents results from comparative research into the principles constraining learner varieties (interlanguages) in use. The contributors analyze the oral production of complex verbal tasks (descriptions, instructions, narratives, retellings) in L2 Dutch, English, French, German, and Italian, concentrating on the way information from different semantic domains is organized across utterances (referential movement) and on a major aspect of the interaction between utterance-level and discourse-level constraints, namely, scope phenomena. We hope the results presented here will provide insights into the structural and communicative factors pushing, or hampering, L2 acquisition and will further our understanding of how the organizing principles interact at different levels of discourse production, be it in L1 or L2.

We agree with the editors of a previous special issue of *SSLA* (*17, 2,* 1995), entitled "The Construction of Discourse by Nonnative Speakers," on the importance of multilevel interaction of constraints. The studies presented here also embody:

> the study of grammatical features that contribute to the structure of the text and, conversely, the study of contextual features that determine the use of grammatical features: neither of which may be accessible through the analysis of sentence-level production. (Bardovi-Harlig & Hartford, 1995, p. 125)

However, the two special issues differ in at least three respects: (a) The present issue's approach is cross-linguistic not only in the L1s but also in the L2s investigated; (b) it contains both cross-sectional and longitudinal studies; and

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(c) the tasks investigated (namely, the oral production of complex verbal tasks) are highly comparable across languages and types of speaker. This approach enables us to investigate the individual construction of coherent texts and, in particular, the crucial relationship between their conceptualization and formulation by the speaker (Levelt, 1989). That is, it allows for a characterization of the expressive potential (and limitations) of a learner's (or indeed any speaker's) linguistic repertoire at a given time.

The work presented here comes from the follow-up project to the European Science Foundation's *Second Language Acquisition by Adult Immigrants,* which was a comparative analysis of untutored language acquisition from a cross-linguistic and longitudinal perspective, involving 40 case studies of learners of different backgrounds. One spin-off from the project was the computerization of a sizable *ESF Second Language Data Bank,* which continues to provide material for analysis (cf. Ahrenholz, Dimroth, & Watorek, this volume), and which is now part of the CHILDES database (MacWhinney, 1991). Two similarly oriented projects of the 1980s, the Pavia project on the acquisition of L2 Italian (Giacalone Ramat, 1992, 1995), and the P-MoLL project on L2 German (Dittmar, 1991), also contributed data to the follow-up project, in Bernini's and Ahrenholz's contributions, respectively. The data analyzed in this issue were elicited by well-known and well-tried techniques shared by these and other empirical L2 and L1 programs of the last decade: personal narratives, retellings based on the ESF Charlie Chaplin clip and on the bird and horse stories (Hickmann, 1982), instructions based on the ESF's stage directions or P-MoLL's instructions for assembly, picture descriptions from the ESF data, and linguistic interviews from the Pavia project. Carroll, Murcia-Serra, Watorek, and Bendiscioli as well as Hendriks propose cross-sectional studies, Bernini proposes longitudinal analyses starting right from the beginning of the acquisition process, and Ahrenholz combines longitudinal and cross-sectional methodology, as do Dimroth and Watorek.

The results of the original project (summarized in Perdue, 1993) clearly identify a limited set of organizing principles of different levels—syntactic, semantic, and pragmatic (in the sense of the principles organizing coherent discourse)—that structure learner varieties. These principles interact, and the specific interaction determines the organization of a given learner variety at a given time. Development can be understood as a reorganization of the variety following a change in the relative weight of the contributing principles. Development within this data set was defined from an initial nominal utterance organization (the "pre-basic variety"; see Perdue, 1996), through a nonfinite verbal organization of utterances (the "basic variety"), to a finite utterance organization (the "post-basic variety"). The basic learner variety (Klein & Perdue, 1997), hereafter abbreviated BV, operates in a way that is largely independent of the specifics of the L1s or L2s involved. It represents a self-sufficient, if limited, system of communication that provides insights into a prototypical (Watorek, 1996) procedure for organizing information in connected speech available to any adult speaker—learner or native. One explana-

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tion for acquisition beyond the BV is its communicative limitations: Discourse contexts exist where its organizing principles clash, and this pushes learners to reorganize and extend their variety. The communicative limitations of the variety, in a sense, push the learner to further acquisition. The process is constrained, however, by the present functioning of the variety. In particular, new and even targetlike forms that a learner acquires are not necessarily used in targetlike ways (with targetlike functions); mastering the form-function correspondences of the target represents a specific and complex learning task, as Schachter and Rutherford (1979) pointed out long ago.

The new project, called *The Structure of Learner Varieties,* continues the investigation of such organizational principles, with analyses concentrating on, first, the integration of information from different conceptual domains (time, space, person, events, modality) in the speaker's construction of a coherent spoken text (what we have referred to as "referential movement") and, second, on the articulation of text-level and utterance-level organizational principles. Because these aspects of text production are not well understood for native production, the majority of contributors compare learner (L2) productions with the performance of native adults or children on identical tasks. What is at stake (regardless of the model adopted by the different contributors) is the understanding of the interaction of principles organizing the macrostructure of the text and those principles structuring individual utterances. Macrostructure concerns aspects such as the linearization of information from the different domains across utterances and the partitioning of utterances into foreground and background (main structure and side structure). On the level of individual utterances, syntactic and semantic constraints apply; aspects to be analyzed here are word order, the choice between lexical, pronominal, or empty elements, and the scope of negation and particles such as *also, even,* and *only*. For example, the interaction of the two levels will determine whether a particle's maximal scope and its actual scope coincide or not (Watorek & Perdue, 1999).

What is common to all contributions are the following assumptions:

1. The learner variety is a system in its own right, error-free by definition, and characterized at a given time by a particular lexical repertoire and by a particular interaction of organizational principles.
2. The dynamics of the acquisition process can be found in the interaction between information structure and the linguistic means the learner has available at any given time—the way the repertoire is structured so as to allow (or not to allow) the expression of a complex body of information in context.

In production, a learner, like any speaker, needs to construct coherent discourse, and for any given utterance, the discourse context defines an informational structure—what is maintained and what is developed in a given conceptual domain, which parts are affected by scope-bearing elements, and so on. The learner has to learn how to reconcile this informational structure

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with the linguistic means available and, if this is not possible, to acquire further means. This task is clearly not the only factor determining acquisition, but it is felt to represent a major factor pushing a learner to acquire the syntactic specifics of the target language, and one that does not always get the attention it deserves. That is why this learning task is analyzed in great detail by the contributors.

Hendriks analyzes the acquisition and use of linguistic means for marking topics in Chinese and French. Her aim is to assess the weight of two knowledge sources necessary to construct coherent discourse: (a) pragmatic (discourse-organizational) principles based in the first instance on the "given-new contract" (Clark & Haviland, 1977); and (b) the linguistic means necessary for text cohesion. To achieve this, she adopts a natural, but strangely neglected, methodology of comparing the performances of adult native speakers, children of different ages, and adult L2 learners, in relation to a single discourse function—promotion of a referent to topic—in strictly controlled and identical tasks: narrative retellings (Hickmann, 1982). She is thus able to illustrate in detail the different nature of the learning problem for children and adults.

In analyzing the descriptive discourse of very advanced learners of German, Carroll et al. address a problem that has long puzzled language teachers as well as researchers: Why is it that the connected prose of such learners is not nativelike, despite their apparent mastery of sentence-level grammar? These authors show that the perspective native speakers of German take when describing a picture is region-based, whereas that taken by native speakers of English and Romance languages is object-based. In other words, German speakers take the referential domain of space as a base for constructing descriptive discourse, whereas English and Romance speakers adopt the referential domain of entities. The problem for the English and Spanish learners of German studied here is therefore twofold. Not only do they have to recognize that referents are introduced in the TL via spatial contextualization (i.e., via locational constructions, e.g., *on the square is a fountain,* rather than by existential constructions, e.g., *there is a fountain on the square*), but also that this fact has other ramifications for word order and for the linguistic means preferred for reference maintenance, which in turn affects the subdivision of the object to be described. As the authors state, "the grammatical means that languages use to encode [discourse] functions form part of a typological pattern" (p. 445). But whereas a structural analysis can identify, for example, a category "topic" in sentence-initial position in German, it has nothing to say about which referential domain fills that category in which discourse context. This is also the learners' problem. In the productions studied here, it is not the structural organization of their (advanced) variety, but the way they manage referential movement in the domains of space and entities that results in nonnative sequences of (grammatical) utterances.

Ahrenholz also analyzes discrepancies in the way native speakers and learners organize information during the process of giving instructions, concentrating on the learners' expression of modality. He shows that beginning

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learners have to acquire explicit means to mark modality. However, intermediate learners overmark the domain of modality in comparison to native speakers: The acquisitional task for them is to learn (a) how to organize sequences of utterances so that (modal) reference is maintained implicitly, and (b) in which restricted contexts native speakers of German do resort to the explicit use of modal verbs.

These three studies compare native and learner production, thus throwing light both on the process of discourse construction and on the learning problem. For discourse construction we have a better idea, within a discourse type whose main structure utterances are defined by the optionality versus obligatoriness of certain conceptual domains and the way referential movement within them proceeds, of how the linguistic repertoire of a particular native speaker or learner functions to organize and mark this referential movement. For example, French and Chinese native speakers both use topic promotion in narratives to reintroduce a referent or to disambiguate between two active referents (Hendriks); German native speakers mark cohesion in descriptive discourse preferentially in the spatial domain by maintaining reference to regions (Carroll et al.); and in instructions, they reserve the explicit marking of the modality of necessity for contexts where the necessity is circumstantial rather than derived from the definition of the task itself (Ahrenholz). For the learning problem, we see that, beyond the initial stages, the linguistic means acquired are adapted (at least partially) to the way the source language organizes the particular discourse type. In Hendriks's study, a variety of French structures are used—appropriately or not—for topic promotion by Chinese learners in accordance with the shared French and Chinese functions; in Carroll et al.'s study, the German anaphoric adverb *da* "there" is used on spaces defined by objects (the authors' "places"), in accordance with the source language English preference for reference maintenance; in Ahrenholz's study, modal verbs, when acquired, are overused in relation to L1 German, a tendency of use that is reflected in L1 Italian. In short, the greater the learners' L2 repertoire, the more they are able to transfer (this is one reason why the source language specifics are largely absent from the BV). The further learning task is complex, as it involves the reorganization of an already-functioning way of constructing cohesive discourse by working out the subtle functional differences between various French topic-promoting devices, by maintaining reference on regions, and by reserving modal verbs for limited discourse contexts.

Bernini deals with the acquisition of negation in nonnative Italian, tracing this development longitudinally from nominal utterance organization right up to finite utterance organization. He characterizes the learners' development as a four-stage cumulative process, with each stage marked by the introduction of a new construction. This causes the variety to reorganize, with the consequence that the range of functions of the preexisting constructions diminishes. The author shows how the particles used to express negation interact with the development of utterance structure: The semantic-pragmatic organi-

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zation of the early stages demands that the negator be left adjacent to the constituent it affects; but with the grammaticalization of the utterance structure, the negator comes to depend on more purely structural factors—for example, whether it has scope over a verb or some other constituent.

Finally, Dimroth and Watorek look in detail at the distribution of the additive particle *also* in the film retellings of ESF learners of L2 Dutch, French, and German at BV (and post-BV) levels. The scope of these particles is defined as the relationship between their position in the utterance and the constituent of the utterance that is affected by the particle's meaning—that is, it is defined as a combination of direction and distance. A preliminary hypothesis (Klein & Perdue, 1997, p. 318) was that the particles would immediately precede the affected constituent (left adjacency) at the BV level. This hypothesis was found to be only partially confirmed: The distribution of *also* was adjacent, but overwhelmingly right (rather than left) adjacent. Furthermore, adjacency gives way to distance at the post-BV level, with the development of finiteness marking on the verb. In other words, the development of a syntactic domain for the particle reflects morphosyntactic development in utterance structure.

Both of these articles reflect the discourse-contextual influence on utterance structure. The very early stages analyzed by Bernini show that learners' utterances are only organized by pragmatic (topic-focus) principles, and that negation interacts with this organization: The particle *no(n)* either negates the focus constituent, or itself forms the focus of the utterance. Dimroth and Watorek's definition of scope at the BV level depends on the prior identification of the constituent affected by the particle, which can only be achieved by a discourse-contextual analysis, from which it emerges that this constituent is the focus of the utterance at the BV level. At the post-BV level, however, topic-focus structure alone does not predict the particle's scope; the particle now occupies a syntactically defined position to the right of the finite verb, and other aspects of the information structure are necessary to define the affected constituent.

Two final remarks are perhaps in order. First, all of the contributions demonstrate different aspects of the way in which utterance-level and discourse-level constraints affect each other. These studies should therefore point the way to a more integrated explanation for the acquisition process than studies that concentrate exclusively on one or the other level. Second, this issue covers the whole range of adult second language acquisition across different languages, from the very beginnings (Bernini) to quasi-native competence (Carroll et al.). Within this range, it can be observed that the computational knowledge that learners initially rely on—namely, their knowledge of discourse-organizational principles—is precisely the knowledge that makes the final push to native-speaker-like production so difficult. The prototypical processing of complex verbal tasks by putting to use a basic repertoire, that is, the abstracting away (Kellerman, 1987) from source-language specifics, is clearly not sufficient for a large proportion of learners. But they find it difficult to work out how the grammar of the new language shapes the way in which

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information is developed from utterance to utterance within a given discourse type. The means by which this is achieved is not at all evident, it seems, in the linguistic environment, especially given that, by this stage, learners have a fully functional variety at their disposal in any case.

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