LESLLA Symposium Proceedings

Recommended citation of this article

Vainikka, A., Young-Scholten, M., Ijuin, C., & Jarad, S. (2017). Literacy in the Development of L2 English Morpho syntax. LESLLA Symposium Proceedings, 12(1), 239–249. https://doi.org/10.5281/zenodo.8059603

Citation for LESLLA Symposium Proceedings

This article is part of a collection of articles based on presentations from the 2016 Symposium held at Universidad de Granada in Grenada, Spain. Please note that the year of publication is often different than the year the symposium was held. We recommend the following citation when referencing the edited collection.

Sosiński, M. (Ed.) (2017). Alfabetización y aprendizaje de idiomas por adultos: Investigación, política educativa y práctica docente/Literacy education and second language learning by adults (LESLLA): Research, policy and practice. Universidad de Granada. https://lesllasp.journals.publicknowledgeproject.org/index.php/lesllasp/issue/view/476

About the Organization

LESLLA aims to support adults who are learning to read and write for the first time in their lives in a new language. We promote, on a worldwide, multidisciplinary basis, the sharing of research findings, effective pedagogical practices, and information on policy.

LESLLA Symposium Proceedings

https://lesllasp.journals.publicknowledgeproject.org

Website

https://www.leslla.org/

LITERACY IN THE DEVELOPMENT OF L2 ENGLISH MORPHOSYNTAX

ANNE VAINIKKA
University of Delaware
MARTHA YOUNG-SCHOLTEN
Newcastle University
COLLEEN IJUIN
Georgia State University
SAMAWAL JARAD
Northumbria University

ABSTRACT: The course of second language (L2) morpho-syntactic development is said to be uniform, regardless of learners' L1, type of exposure or education. We argue that this conclusion is premature and explore these variables with new cross-sectional data from an on-going study of Arabic-, Somali- and Urdu-speaking English learners with varying amounts of home-language and English literacy whose exposure to English was only after post-puberty immigration. While seminal studies of adult immigrants' naturalistic L2 acquisition have included low-educated adults, instruction not literacy was a variable. There is emerging evidence of different rates and developmental sub-patterns for L2 immigrant adults but it is unclear whether the influence is exposure type or literacy. The structure building approach predicts grammatical elements are acquired in their order in the target syntactic tree, and in English crucial are word order, negation, tense and agreement. Given the standard syntactic structure of English, the predicted order of acquisition (1) word order of the VP projection; (2) sentential negation (NegP); (3) regular past tense marking (TP); (4) subject-verb agreement, including 3rd person singular (AgrP). Data come from speakers' oral production in response to a set of tasks. Results support the predicted order of development for L2 English learners regardless of their L1. Results also reveal subtle individual differences in over-production of suffixes such as *–ing* and *– s* which can only partly be traced to learners' level of home language and L2 English literacy.

KEYWORDS: morphosyntax, tense, L2 English, functional projections, over-production.

1. INTRODUCTION

In 2001, Roger Hawkins summarized four decades of second language (L2) acquisition research, since the 1970s, cross-sectional and longitudinal studies of the second language acquisition of inflectional morphology, and syntax, in particular word order, have converged on the conclusion that there are common stages of development which are largely independent of (1) the learner's native/first language (L1); (2) the learner's age at initial exposure to the target language; (3) the type of exposure (naturalistic/uninstructed vs. classroom; see e.g. Krashen 1985; Schwartz 1993); and (4) the learner's educational background. These conclusions come in part from the major L2 acquisition studies of uninstructed 'naturalistic' adult immigrants since the 1970s, as the rightmost column in Table 1 shows.

Study	L1 and L2	Description	Ideas introduced
Bailey et al. 1970s	Spanish and 11 other languages L2 English	cross-sectional: 73 learners	L2 learners' development follows a 'natural' order independent of their L1 (Krashen 1985) - like children.
ZISA 1980s	Spanish, Portuguese and Italian immigrants L2 German	cross-sectional: 45; 2-year longitudinal: 12 learners	L2 development moves in stages; there is debate on whether adults use the same linguistic mechanisms as children.
ESF 1990s	Immigrants learning 5 European L2s	2 ½ yrs: 40 learners	L2 learners start with a 'Basic Variety'; some don't go further.
LEXLERN 1990s	Korean and Turkish immigrants L2 German	cross-sectional: 17 learners	L2 learners follow a natural order that is indeed largely independent of their L1 except for at the very start.
VYSA 1990s-2000s	L1 English exchange students L2 German	1 year longitudinal: 3 learners	Educated exchange students not instructed in the L2 follow the same stages as less educated immigrants.

Table 1: Influential Studies of Naturalistic Adult Learners' Acquisition of L2 Morphosyntax.

The usefulness of having an awareness of learners' developmental trajectories should not be under-estimated. This awareness means that the teacher or tutor will have well-founded expectations regarding what a learner is able to do at any given point in time and where the learner is likely to make errors. This enhanced sensitivity to a learner's natural trajectories leads to confidence in placement and assessment of the learner. There are other possible benefits. Since the 1970s, there has been ongoing discussion of how to design or provide materials for a stage of development that is not only suited to the learner's current stage of development but slightly more advanced (Krashen 1985). While that is likely to be far too demanding for those who work in multi-level classrooms, understanding learners' linguistic trajectories can contribute to tasks and materials selection whereby these are not only tailored to learners' communicative needs but also to their current linguistic abilities.

Despite the findings of these studies and Hawkins' conclusions, there is on-going exploration of and debate surrounding claims (1), (2) and (3). However, there has been much less attention paid to the claim in (4). This is because those who work within the generative paradigm of second language acquisition assume modularity of mind. That is, they hold that the acquisition of linguistic competence proceeds separately from the development of general cognition and that the result of language acquisition is encapsulated knowledge which is separate from other types of knowledge. Any skills which might fall under general cognition such as literacy lie outside knowledge of language (i.e. linguistic competence) though of course there are interfaces with different types of knowledge. Indeel all normally developing children around the world effortlessly attain adult-like syntax several years before they begin to be taught to read. There is a wealth of research (including the studies in Table 1 but considerably beyond these) which points to the conclusion that L2 learners past the age of puberty have access to the same innate mechanisms that guide children. That is, after the purported critical period for the acquisition of language ends, there is lifelong availability of the linguistic mechanisms that constrain human syntax and its acquisition known as Universal Grammar (Chomsky 1981; see White 1989 on L2 acquisition). The logic here is that if UG operates similarly for adults, educational background – e.g. literacy – should not be relevant for the acquisition of encapsulated syntax. Tarone et al. (2009) contest this position and claim that alphabetic literacy has an undeniable effect on the acquisition of L2 syntax. In this paper, we explore whether the presence or absence of home language literacy results in differences in learners' acquisition trajectories by looking at a sample of L2 English learners with and without home language literacy/formal schooling prior to immigration.

In the rest of this paper, we look at data from an on-going study of the acquisition of verbal inflections and word order (morphosyntax) by speakers of Arabic- and Urdu and related languages who were at various stages in their acquisition of English. We start by describing the theory of Organic Grammar used to track learners' development trajectories. We next introduce the learners and their background and the study's methodology. Then follows the results and a discussion of their interpretation.

2. ORGANIC GRAMMAR

Organic Grammar has its origins in the 1990s LexLern study (see Table 1) and ideas emerging from the study of Korean- and Turkish-speaking adult immigrants in Germany whose acquisition was largely naturalistic. The proposal is that learners' initial morphosyntax is based on their native language word order, but that learners do not project any functional syntax despite opportunities for transferring these from their native language. That is, their interlanguage grammars are 'minimal trees' somewhat akin to young children's early multiword utterances, around their two-word stage. When L2 learners get ample input in the target language (note that immigrants do not always get sufficient input), they 'build structure' using the linguistic mechanisms still available to them (Universal Grammar). In the 1990s, Vainikka & Young-Scholten proposed and tested these ideas on Korean and Turkish as well as on English, Italian and Spanish speakers learning German naturalistically. Organic Grammar encompasses the idea of minimal trees, the learner's starting point, and structure building, the process in which the learner then engages to acquire functional projections. (See Vainikka & Young-Scholten

1994; 1996; 2005; 2013 and on the application of Organic Grammar to assessment, see Young-Scholten & Ijuin 2006.)

Turning to English, these projections or phrases are the negation phrase (NegP), the tense phrase (TP), the agreement phrase (AgrP) and the complementizer phrase (CP). A fundamental feature of Organic Grammar is that projections differ across languages; for example, Chinese does not mark tense or agreement but does mark aspect and hence does not have a TP or an AgrP, but does have an AspP. Universal Grammar provides the language learner with the tools to figure out from the input of a given language what the relevant projections are.

Stage	word order	Verb types	agreement/tense	pronouns	syntax
VP	L1 order, then L2 order	thematic (main) verbs	none	subject, object pronouns absent	None
NegP	resembles the L1 apart from complex syntax	thematic verbs; copula 'is'	none	pronouns forms begin to emerge	Negation; single clauses; formulaic or intonation-based Qs.
TP	resembles the L2 apart from complex syntax	thematic verbs, modals; copula forms beyond 'is'	no agreement; some tense, some aspect, but not productive	more pronoun forms, but they can still be missing	Conjoined clauses. Formulaic wh-Qs; yes/no Qs w/o inversion.
AgrP	resembles the L2 apart from complex syntax	thematic verbs, modals, copula forms beyond 'is'; auxiliaries in all forms and tenses	productive tense, aspect; some agreement, esp. forms of 'be'	pronouns obligatory, 'there' and existential 'it'	Simple subordination; wh-Qs but all Qs may lack inversion
CP	always resembles the L2	complex tense, aspect forms; passives; range of thematic verb, modal, auxiliary forms	forms usually correct, apart from newly attempted ones	use of 'there' and 'it' beyond stock phrases	Complex subordination. All Qs with inversion.

Table 2: Organic Grammar Stages for L2 English.

3. METHODS AND MATERIALS

3.1 Participants

The participants recruited in this study were eight native speakers of Arabic and six Urdu as well as related Dari, Punjabi and Pahari speakers who were living in the UK at the time of testing. All participants were post-puberty learners of L2 English; that is, they had not been exposed to English at all prior to immigration. Their literacy and their formal education in their native language varied as did their length of residence in the UK. At the time of testing, they were either enrolled in English as a second language classes or had been enrolled in such classes. In the UK these were either 'pre-entry' classes - the lowest level of proficiency (below 'Basic User' in the Common European Framework of Reference for Languages) and Entry 1 (working towards CEFR A1).

3.2. Tasks

The data come from speakers' oral production in response to tasks with pictures designed to elicit evidence of acquisition of these projections. Each learner did the tasks individually with a research assistant or the fourth author who spoke their native language and was able to explain the requirements of each task. The tasks included sentence completion for VP word order, comparison of slightly differing pictures for NegP, story retelling for TP, pictures and a card-game with habitual and on-going actions for AgrP, a 20 questions game with Wh-words and sentence completion for CP.

3.3. Predictions

We focus in the present paper on the Arabic and Urdu etc. speakers and on their acquisition of VP, NegP, TP and AgrP; analysis of data from the Somali speakers, mentioned in the abstract, and of the acquisition of CP is still underway. Regarding word order in declaratives, Arabic has the possibility of either subject-verb-object (SVO) or verb-subject-object (VSO), while Urdu has relatively free word order language with the most common being SOV. That is, Arabic has a head-initial VP, like English, while Urdu has a head-final VP, unlike English. Tense and agreement are marked in both languages and there is a copula verb. As far as negation is concerned, in Arabic this involves two particles which precede the verb sentence-initially: *ma* which negates the verb in the past tense and *la* which negates the verb in the present tense. In Urdu, the negator *nahin* precedes the verb. These facts lead to the following predictions:

1. Arabic learners of English will transfer their head-initial Arabic VP and produce VO patterns rather than OV patterns while Urdu speakers will do the reverse.
2. None of the learners will struggle with tense or agreement marking or copula 'be'
3. Negation will precede the verb

3.4. Data Analysis

Researchers vary in how they count learners' acquisition by looking at their suppliance of forms or constructions expected in a particular context. For the purposes of our research, if a learner uses a form (or construction) this indicates they have acquired it. The present study follows Scarborough's (1990) measure of productivity where this is indicated by learners' production of multiple variants of a morpheme with different verbs and in conjunction with the relevant syntax.

4. Results

4.1. The VP

Table 3 indicates that the speakers transferred their native language declarative word order. While Arabic speakers never produce OV word order, the Urdu (and related-language) speakers sometimes produce OV. They also produce VO which, of course, indicates that they have acquired this characteristic of English.

Learner; L1	Program level	L1 literacy[1]	L2 literacy	OV	VO
Afra; Arabic	Entry 1	ok	Good	0/10	10/10
Amro; Arabic	Pre-entry	0	Lowest	0/8	8/8
Awad; Arabic	Pre-entry	ok	Lowest	0/10	10/10
Rawdha; Arabic	Entry 1	ok	Some	0/10	10/10
Moh; Arabic	Pre-entry	ok	Some	0/10	10/10
Moh S; Arabic	Pre-entry	0	Lowest	0/7	7/7
Sabry; Arabic	Pre-entry	ok	Some	0/10	10/10
Moh M; Arabic	Pre-entry	0	Lowest	0/9	9/9
Sultani; Dari	Pre-entry	ok	Lowest	1/8	7/8
Tazeem; Urdu	Entry 1	ok	Some	0/4	4/4
Imtiaz; Urdu	Entry 1	0	Lowest	1/10	9/10
Naz; Urdu	Entry 1	ok	Good	0/10	10/10
Shafida; Pahari	Pre-entry	0	Lowest	3/10	7/10
Zabila; Punjabi	Pre-entry	0	Lowest	4/8	5/8

Table 3: Word Order in the VP.

1. Lowest: (for reading) = the learner can recognize some of the common sight words which they have been taught. Decoding is a very low 'glance and guess' stage. For L1 literacy 'Good' and 'Some' L2 reading are categorized under 'ok' which indicates they can decode while reading in their native language.

4.2. Acquisition of Functional Syntax and Projection of NegP, TP, AgrP and CP

Evidence for NegP comes from the sets of pictures indicating absence of specific actions (with singular and plural subjects), as noted above. Learners were expected to produce utterances such as

1) The boy doesn't eat. The girls aren't washing the dog.

For tense and projection of TP, a story retelling task was used and learners were expected to produce *-ed* on main verbs or irregular past forms as in

2) The people watched the boat. The boat sank.

For agreement (AgrP), learners saw pictures depicting habitual action and what was expected were sentences with third person singular on main verbs and when the pictures showed on-going action, then expected were sentences with forms of auxiliary *be* + a main verb with *–ing*.

Copula 'be' was tested with a card game played by the participant and the researcher where the players had to say whether the professions shown on the cards matched or did not:

3a) I am a nurse; you are a teacher.
b) We are teachers.

When a learner is placed at a particular stage, this means the learner is in the process of projecting that phrase. That is, they are actively working on a given phrase, trying to figure out how English negation or tense or agreement is marked morphologically and represented syntactically. Working on stages turns out to be highly relevant for the learners in our sample.

In Table 4, learners are arranged by lowest projection/lowest stage, VP, to the highest projection/stage, CP. The TP column gives additional examples of past tense forms learners produced, but not in the context of the task they were completing. The copula 'be' and auxiliary 'be' columns show a thumbs up icon when the figures represent a variety of forms produced by the learner.

Learner Stage	**Level**	**Neg P**			**TP**	**AgrP**		
		no(t) V	is no(t) V	do forms	**(-ed)**	cop be	aux be	3rd sg -s
Zabila VP	Pre-E	10/10	0	0	1/10	5/10	0	5/9
Amro NegP	Pre-E	6/10	4/10	0	0	0	1/10	0
Imtiaz NegP	Entry 1	7/7	0	0	1/10 + 2 other exs	5/10	0	1/10
Shafida NegP	Pre-E	10/10	0	0	1/10	n/a	0	1/10

Learner Stage	Level	Neg P			TP	AgrP		
		no(t) V	is no(t) V	do forms	(-ed)	cop be	aux be	3rd sg -s
Tazeem NegP	Entry 1	10/10	0	0	0	5/10	5/10	0
MohM TP	Pre-E	2/10	0	8/10	0 + 2 other exs	0	0	0
Sultani TP	Pre-E	1/10	4/10	5/10	0 + 2 other exs	10/10	0	0
MohS TP	Pre-E	10/10	0	0	0	5/10	1/10	0
Sabry TP	Pre-E	10/10	0	0	0	5/10	0	0
Rawdha TP	Entry 1	1/10	9/10	0	0	10/10	0/10	0
Naz AgrP	Entry 1	7/10	1/10	2/10	2/10 + 2 other exs	10/10	5/10 👍	0
Awad AgrP	Pre-E	9/10	1/10	0	0	10/10	6/10 👍	0
Moh CP	Pre-E	0	10/10	0	1/10 + 2 other exs	9/10 👍	0	1/10
Afra CP	Entry 1	0	0	10/10	0	7/10	4/10 👍	0

Table 4: Learners' Functional Projection Stages.

Zabila, as a speaker of two related languages, Urdu and Punjabi, is at the very lowest stage. Regarding her negation, she uses a rudimentary form of negation and she simply produces no/not without any auxiliaries before a main verb. She has little tense marking (1 out of 10), varied use of copula 'be' (in 5 out of the 10 sentences in which they were required) and she does not produce any instances of auxiliary 'be'. The table suggests, however, that she is in the process of projecting AgrP as she supplies third person singular –s in 5 out of 9 utterances in which it is required in that task. The data are misleading; Zabila's use of 3rd person singular –s is accurate because she has adopted the strategy of attaching it to verbs regardless of whether the subjects are third person singular and, in fact, whether the word is a verb. Her data show over-generalization of -s to various content words

The next four learners are at the NegP stage, Amro (an Arabic speaker), Imtiaz, Shafida and Tazeem (Pahari and Urdu speakers). They are starting to produce various function words – copula 'be', auxiliary verbs, third person singular –s, and tense more frequently when they are required,. For the participants at the TP stage MohM, MohS, Sabry, Rawdha (all Arabic speakers) and Sultani (a Dari speaker), we notice comparably more progress with inflected forms as well as copula and auxiliary forms. Learners at the AgrP and CP stage use even more inflected forms as well as more advanced syntax for example target-like questions and multiple clause utterances. The little 'thumbs up' sign for Naz, Awad, Moh and Afra indicate that they have four different forms of 'be' whether as copula or auxiliary and are using them correctly.

4.3. Learners' overgeneralization

Table 4 hides the fact that learners also use a variety of forms in the utterances they produced which are not target-like. Researchers have long observed overgeneralization by children when they are in the process of acquiring rules which do not apply to irregular forms, e.g. the common use of the regular past tense suffix to irregular verbs to result in 'goed' or 'wented' (Berko 1958). In addition to what we have noted above for Zabila's overuse of -s, examples are

4) Amro: *I am* in all responses for auxiliary *be*
5) Awad: five examples of auxiliary *is* with plural subjects
6) MohM: in the negation task only *I don't* + subject-verb X or subject-verb X + *I don't*
7) Sultani: in the negation task, use of *is don't* – verb and *don't* verb

These overgeneralizations are unsurprising; learners are in the process of figuring out which forms mark singular and which mark plural and how auxiliary 'do' vs. auxiliary 'be' function. Many years ago, Wagner-Gough (1978) reported on young Homer's overuse of –ing in English. However, the additional examples shown in Table 5 suggest something more interesting, perhaps along the lines of the second language learners' use of holistic or unanalyzed chunks (see Myles 2004). What is of note in our data is that even when these strings belong to a different category than expected, they are nonetheless closed class elements. Their recruitment of these words and sequences is not random; learners do not simply use content words which are frequent in the input such as 'table', 'book' or 'bus'. There is compelling evidence that they subconsciously know and use closed class elements, i.e. function words, after identifying them in the L2 input they are receiving. We refer to these as place holders.

Learner	L1 lit	L2 lit	Place holder	Task	Responses
Zabila VP	0	Lowest	n/a	All tasks	Overgeneralization of –s to nearly all verbs
Amro NegP	0	Lowest	You need I am/I'm	Habitual action in 3rd singular	you need is smoking; I am read; I'm cook; I am is clean; this girl I'm go; this man I'm go
			I'm + V-ing	Progressive in 3rd sg and pl	two guys I'm reading; three guys I'm washing
Tazeem NegP	ok	Some	is go is go to	Negation	(boy) is go to don't drink; is go to no wash; is go to no play; go to no painting; go to no play
			go to is go to	Habitual action in 3rd singular	Is go to read; is go to wash; is go to food cooking
			is go; like go to	Progressive in 3rd sg and pl	(singular) Is go to eat; (plural) every three like go to cleaning
MohS TP	0	Lowest	in the	Habitual action in 3rd singular	in the drink; in the writing; in the coming

Learner	L1 lit	L2 lit	Place holder	Task	Responses
			in in the	Progressive in 3rd sg and plural	in writing; in the eat; all plural: in the cooking; in the no cooking; in writing; in the wash
Sultani TP	ok	Lowest	don't don't like	Negation	is don't open door; don't like; is don't like painting; don't like drive
			for	Habitual action in 3rd singular	think for cornflakes; is reading for a book
			for in	Progressive in 3rd sg and plural	(sg) eat for; (sg) laugh for; (sg) is like for; (sg) is laugh for; (pl) is in cooking for; (pl) is wash for
MohM TP	0	Lowest	I don't	Negation	I don't + subject-verb (object/IO/ object)) subject + I don't + object I don't + subject-auxiliary-verb
			the	Habitual action in 3rd singular	the smoking; the have
			the	Progressive in 3rd sg and pl	(sg) the play; (pl) the write; (pl) the walk
Naz AgrP	ok	Good	dislike	Negation	dislike washing; dislike driving; dislike to open

Table 5: Placeholders in Acquisition of TP and AgrP.

4.4. Overgeneralized Forms as Placeholders

These single words or sequences learners produce seem to mark a syntactic function. We propose that learners are working on the projections TP and AgrP and they know –from their continued access to Universal Grammar– that every project requires a head (T for TP and Agr for ArgP). UG leads them to fill the head, but because they are uncertain exactly what fills that head, they recruit functional elements other than the target elements.

There is individual variation in learners' use of placeholders at the time data were collected. First, there are some differences in the words and sequences they recruit. We can attribute this to projections that learners are also in the process of acquiring (e.g for MohH, Dp (determiner phrase), in his use of the + verb) or functional elements which have been the focus of classroom instruction. Exposure to instruction varies with learners' exposure to different teachers and with their attendance. Second, placeholders are not used by all learners. Those who used placeholders (1) are beyond the VP and NegP stages and not yet at the CP stage and/or (2) have no native language literacy. The non-literates in our sample are more likely to use placeholders not directly related to the actual verbal head such as 'the' and 'in'. This may be due to greater reliance on auditory as compared to visual memory.

5. DISCUSSION AND CONCLUSION

Both L1-literate and L1-non-literate second language learners follow the path of development for English predicted by Organic Grammar. While both literate and non-literate learners recruit placeholders while they are working on the functional projections TP and AgrP, non-literates are more likely to recruit placeholders which are not verbs, yet which involve functional elements. These placeholders are rather different from children's over-generalizations and may also differ from the sort of unanalysed holistic chunks to which Myles (2004) refers. Whether they reflect what learners have been working on in the classroom requires further investigation. Nevertheless, they clearly demonstrate that adults are fully capable of working on their own on projection of verbal syntax in English.

WORKS CITED

Berko, Jean (1958). The child's learning of English morphology. *Word* 14:150-177.

Chomksy, Noam (1981) Principles and parameters in syntactic theory. In N. Hornstein and D. Lightfoot (eds.) *Explanation in Linguistics: the Logical Problem of Language Acquisition.* London:Longman. pp. 32-75.

Hawkins, Roger (2001). *Second Language Syntax. A Generative Introduction.* Malden, MA: Blackwell.

Krashen, Stephen (1985). *The Input Hypothesis.* London:Longman.

Myles, Florence (2004). From data to theory: The over-representation of linguistic knowledge in SLA. *Transactions of the Philological Society* 102:139-168.

Scarborough, Hollis S. (1990) Index of Productive Syntax. *Applied Psycholinguistics* 11:1-22.

Schwartz, Bonnie D. (1993). On explicit and negative data effecting and affecting competence and linguistic behavior. *Studies in Second Language Acquisition* 15:147-163.

Tarone, Elaine, Martha Bigelow and Kit Hansen (2009). *Literacy and Second Language Oracy.* Oxford: Oxford University Press.

Vainikka, Anne and Martha Young-Scholten (1994). Direct access to X'-Theory: Evidence from Korean and Turkish adults learning German. In Teun Hoekstra and Bonnie D. Schwartz (eds.) *Language Acquisition Studies in Generative Grammar:* Amsterdam:Benjamins. Pp. 265-316.

Vainikka, Anne and Martha Young-Scholten (1996). The early stages in adult L2 syntax: Additional evidence from Romance speakers. *Second Language Research.* 12:140-76.

Vainikka, Anne and Martha Young-Scholten (2005). The roots of syntax and how they grow: Organic Grammar, the Basic Variety and Processability Theory. In Sharon Unsworth, Teresa Parodi, Antonella Sorace and Martha Young-Scholten (eds.) *Paths of Development.* Amsterdam: Benjamins.

Vainikka, Anne and Martha Young-Scholten (2013). Universal minimal structure: Evidence and theoretical ramifications. *Linguistic Approaches to Bilingualism 3:2. 180-212.*

Wagner-Gough, Judy (1978). Comparative studies in second language learning. In E. Hatch (ed.) *Second Language Acquisition. A Book of Readings.* Rowley, MA: Newbury House.

White, Lydia (1989). Universal Grammar in Second Language Acquisition. Amsterdam: Benjamins.

Young-Scholten, Martha and Colleen Ijuin (2006). How can we best measure adult ESL student progress? In *TESOL Adult Education Interest Section Newsletter.* September Vol 4 Number 2.