

Conservation in the acquisition of possessive lexical items*

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1. Introduction

The aim of this paper is to explain what ‘conservation’ is, which role ‘conservative behavior’ plays in second language (L2) acquisition, and why ‘conservation’ often remains hidden in early stages of L2 acquisition. For that purpose, learners’ L2 expressions of a possessive relationship will be presented which show conservation of syntactic, morphological and lexical knowledge either within the noun phrase or within the clause. In this paper, only the broad lines are sketched. The reader is referred to Van de Craats (2000), to Van de Craats, Corver & Van Hout (2000) for details on conservation in the acquisition of the possessive noun phrase and to Van de Craats, Corver & Van Hout (2002) for the possessive clause.

All learners’ data used in this paper come from the Dutch part of the ESF corpus gathered in Tilburg (see Perdue 1993). This project was set up as a longitudinal and cross-linguistic multiple case study on the spontaneous L2 acquisition by four Turkish and four Moroccan adults (18–24 years old) learning Dutch outside the classroom. They had (a very) low proficiency in Dutch and were monolingual. The data collection was divided into three cycles of nine months. In each cycle, several elicitation tasks were repeated, such as role-playing, film-retelling tasks, and interviews or personal conversations. There were no special elicitation tasks for possessive constructions.

2. Transfer and the L2-initial state

The role of previously acquired linguistic knowledge in L2 acquisition is generally known as ‘transfer’ or ‘cross-linguistic influence’ (see, among others, Odlin 1989). Former research on transfer mainly concerned syntax and the lexicon. Generative

L2 acquisition research focussed more particularly on the accessibility of UG and the resetting of parameter values. What exactly is the starting point of the L2 acquisition process was not explicitly formulated. Yet, this is a crucial point from a developmental perspective. For figuring out the structure of consecutive stages of development, one should know the stage before and, therefore, come to formulate the starting point of the developmental process. Three proposals on the L2-initial state are found in recent literature:

- the Minimal Trees hypothesis (Vainikka & Young-Scholten 1996) proposed that what transfers from the L1 grammar, is restricted to lexical categories and the position of the head.
- the Full Transfer/Full Access hypothesis (Schwartz & Sprouse 1996) stated that the fully fledged grammar of the L1 is transferred to L2 acquisition, and hence the maximal amount of structure.
- the Valueless Features hypothesis (Eubank 1996) takes an intermediary position between the two other hypotheses: all of the L1 grammar is transferred except the value of formal features under functional heads. As overt inflectional morphology does not transfer, parameter values of features (defined by these morphemes) do not transfer either.

It is a striking fact that research that leads the above acquisition researchers to formulate their views on the L2-initial state is often restricted to the period of time in which the relevant parameter settings are manifest in the learners' data. That research does often not cover the time from the L2-initial state to the moment when, for instance, verbs, pronominal subjects and copulas appear which make a parameter setting visible. Let us first give an impression of these early stages of L2 acquisition in the next section.

3. General characteristics of early L2 learners' data

The sentence in (1) illustrates the earliest stage of L2 acquisition very well. Native speakers of Dutch cannot make sense of that sentence without a supporting context.

- (1) die mijn vrouw oma andere man dochter
 that my wife grandmother other husband daughter

Only if an interlocutor assumes an underlying L1 grammar of Turkish, he can understand the meaning of that sentence. In Turkish, a copula like *be* is not obligatorily realized and the copula is also lacking here. The sentence consists of a subject *die* and a predicate that is the remaining part of the sentence. This is a large recursive noun phrase the head of which, *dochter*, is at the end of the phrase. In order to understand the noun phrase one should look for the 'possessor' (or the

relational argument) left of the head, as in Turkish. Accordingly, we are dealing here with the daughter of the second husband of the grandmother of my wife, a kind of step-aunt. In Turkish, this would be:

- (2) (ben-im) eş-im-in babaanne-sin-in ikinci koca-sın-in
 I-GEN wife-POSS-GEN grandmother-POSS-GEN second husband-POSS-GEN
 kız-1
 daughter-POSS

Comparing (1) and (2) makes clear that the Dutch sentence is nothing else than a noun phrase based on a Turkish structure disguised in Dutch words. It is evident that the sentence in (1) is not a sequence of isolated words, at least not for the speaker. An L1-based syntactic structure in which functional categories are included (see Van de Craats 2000 and Van de Craats, Corver & Van Hout 2000 for the derivation assumed) is required to construct (for the speaker) and to interpret (for the interlocutor) these words as a recursive possessive relationship. Moroccan learners do not construct such noun phrases and they cannot understand them. Dutch native speakers are better equipped to understand them because the Dutch string *Jan z'n fiets* (John his bicycle 'John's bicycle') shows the same order of content words. Structurally speaking, the example in (1) shows that a functional head may have a feature with a ⟨strong⟩ value attracting a full noun phrase possessor without being filled by the morpheme associated to the feature (opposite to the view of the Valueless Features hypothesis outlined above).

The example in (1) also shows that functional elements, both free and bound morphemes, are absent in this sentence, except for the deictic pronoun *die*. The absence of functional elements in the noun phrase cannot be explained by an L1-based grammar, as Turkish has a rich morphology on the one hand, as shown in (2), but also has an optional *be*-copula on the other hand. Moreover, absence of inflectional morphology and free functional morphemes is found in the data of the Moroccan learners. Therefore, it is more likely that absence of functional elements is not a question of truncation of the syntactic tree (cf. the Minimal Trees hypothesis of Vainikka & Young-Scholten), neither a result of L1 transfer (cf. the Full Transfer/Full Access hypothesis of Schwartz & Sprouse), but a characteristic of the vocabulary of early learner varieties.

So the main properties of early L2-learners' speech are an L1-based grammar and the absence of functional elements.

4. Emergence of functional elements

Functional elements, however, are not absent for ever. The more salient they are, the earlier they seem to appear. Demonstrative pronouns (e.g., *die* 'that') and

numerals (e.g., *één* ‘one’), as in (3), appear to a learner as salient elements in the environmental input because they are free morphemes, stressed and with a transparent meaning. The learners’ data show that such functional morphemes emerge before the Dutch plural suffixes *-en* or *-s* on nouns, and before a copula or a genitive case marker like *van* ‘of’. See Van de Craats (2000), Van de Craats et al. (2000) and the examples in (3) and (4).

- (3) a. Thijs *die* vader (target: Thijs z’n vader)
 Thijs that father
 ‘Thijs’ father’
 b. trein *die* baas (target: treinconductor)
 train that boss
 ‘the guard of the train’
 c. broer *een* jongen (target: een zoon van mijn broer)
 brother one boy
 ‘a son of my brother’

After the string of mainly bare content words in (1), the examples in (3a–c) overtly show a clear L1 structure, because the function words appear in the same syntactic position as in Turkish. This involves that the ‘possessor’ (*Thijs/trein/broer*) must be in the specifier position of some functional category higher than DetP of QP. We assume that it is Agr_NNP.

At a later moment in the developmental line, functional elements emerge which can be compared to bound functional elements. Consider first the example in (4).

- (4) *die* van auto
 that of car

If this noun phrase is analyzed on the basis of a Dutch grammar, it would be an analytic construction meaning: those/that of the car (for instance, the wheels or the steering wheel of the car), but that is certainly not the meaning intended by the speaker. If this noun phrase is analyzed on the basis of a Turkish L1 grammar, the meaning differs dramatically. *Auto* (‘car’) is the head of a Turkish noun phrase and *die* (‘that’) must be the possessor marked for genitive case by *van* (‘of’). If we also know that the Turkish pronoun *o* means both *that* and *he/she*, the conclusion only can be that *van* in (4) is a genitive suffix, the meaning of the entire phrase being: *his car* or *her car*. The syntactic structure is given in (5).

- (5) [_{AgrP} [_i [*die-van*]_i [_{NP} *t_i* auto] Agr]
 ‘his/her car’

The Turkish equivalent of this string is given in (6).

- (6) *o* -nun araba-sı
 that/he/she-GEN car -POSS

The systematic comparison of L1 and L2 strings shows how learners still talk, parse and formulate in their L1 system. This implies that learners are constantly searching for equivalents of L1 features. First, learners realize the genitive marker by an empty phonological matrix (\emptyset), as in (1), then they discover an equivalent for the genitive marker, viz., *van*, due to a certain similarity between the Turkish and the Dutch constructions, but it is not plausible that learners will ever find an equivalent for the agreement marker (POSS) since there is nothing comparable in Dutch. Yet, we do find some rare possessive strings in which the link between possessor and possessee is realized by a double marking of *van*, as in (7a), and even by a double marking of *z'n* (reduced form of *zijn* 'his') as in (7b). The latter learner is clearly influenced by the Dutch target string *de jongen z'n tekening* (the boy his drawing) in which he misinterprets the element *z'n* as an agreement marker.

- (7) a. *van Zorro van Turks film*
of Zorro of Turkish film
'the Turkish film Zorro'
- b. *z'n jongen z'n tekening*
his (REDUCED) boy his drawing
'the boy's drawing'

Coming back to the example in (5), in which the L2 learner produced *die-van auto* instead of *zijn auto*, one may wonder why L2 learners say *die-van* and not *hem-van*, as the Turkish *o* means both *he* and *that*. The answer is that they do, but in a more Dutch word order: *van hem*, as in (8a), and, rarely, possessive pronouns followed by the genitive marker *van* are found, as in (8b).

- (8) a. *van hem moeder*
of him mother
'his mother'
- b. *onze van broer*
our of brother
'our brother'

The examples in this section show that not the morpheme itself is transferred from L1 into L2, but the morphological realization rule of the L1, which requires realization of the case feature as much as possible. The L2 provides the devices for this L1-based rule as far as genitive case is involved. Because the learners' vocabulary is not sufficiently elaborated to express functional elements in early varieties, we do not see those elements, but they seem to exist as empty phonological matrices associated with a bundle of features in the same specific syntactic position as in the L1, because both noun phrases *without* functional elements, as in (1), and noun phrases *with* functional elements, as in (3)–(8), are analyzed as *possessive* noun phrases on the basis of an L1 structure. The functional elements emerge gradually when the vocabulary expands, independently of the existence of functional categories, since we must

conclude that in L2 acquisition, functional categories are present as they were in the L1. This leads to the conclusion that only the Full Transfer/Full Access (FT/FA) hypothesis is in accordance with the L2 data discussed here. The FT/FA-hypothesis, however, cannot account for the lack of functional elements since transfer from the L1 may explain the absence of copulas in the L2 data of Turkish learners but not the initial absence and gradual emergence of other functional elements such as determiners (e.g., *die* ‘that’ and *één* ‘one, a’) and genitive case markers (*van* ‘of’) that occur also in Turkish. Therefore, a refinement of the FT/FA-hypothesis is proposed in Section 4.

5. The Conservation Hypothesis

The former section has clearly shown a ‘conservative’ behavior of L2 learners. L2 learners with no other linguistic knowledge than the knowledge of their mother tongue are more or less forced to this ‘conservative’ behavior. How can they discover what is language-specific in the linguistic system they have been using for so many years, how can they know where differences with other languages exist? Although the potential options of UG seem available, they are not activated right at the beginning. Initially, L2 learners do not make use of that possibility. Only after a considerable exposure to L2-environmental input, L2 learners seem able to make radical changes as parameter resettings. This was the reason to give the label of Conservation Hypothesis to this approach in which ‘transfer’ (or better: conservation) is more emphasized than access to UG. In this view on L2 acquisition, two main factors are responsible for the developmental line in early learners’ varieties:

- the conservation of grammatical knowledge of the L1;
- the gradual development of the vocabulary in different morpheme realization states in which functional elements appear only at a later moment, dependent on the salience of a specific morpheme in the L2 input, as sketched in the former section.

In the FT/FA-hypothesis, the L2 learners’ expanding vocabulary does not play such a role.

Under the view of the Conservation Hypothesis, it is assumed that the following aspects of linguistic knowledge are conserved:

- the complete syntactic structure of the L1;
- parameter settings of the L1;
- L1 morphology (not the morphemes themselves but the morphological realization rules);
- formal features and semantic-conceptual values of lexical items;
- pragmatic knowledge of information-related grammatical encodings as topic and focus.

Those L1 properties become manifest in early learners' varieties, especially in the learners' varieties of slow learners. They need a longer exposure to L2 input before radical changes in their linguistic system take place so that researchers have more chance to see details of the developmental line, while fast learners are inclined to skip small steps or not to show them overtly. L2 learners often expand their vocabulary from content words, to free functional, and, finally, to bound functional morphemes before a parameter will be reset, as shown in the examples (3) and (4), which show free and 'bound' functional morphemes on the basis of an L1 grammar.

The gradual development of the vocabulary cannot be caused by truncation and subsequently expansion of the syntactic categories, but presumably by the way beginning L2 learners process environmental input. They focus their attention on lexical elements with the clearest content, as reported, e.g., by VanPatten & Cadierno (1993) and VanPatten (1994). When processing of meaning proceeds automatically enough, processing of structural elements becomes possible. Therefore, under the Conservation Hypothesis, absence of functional elements is primarily considered the result of a vocabulary learning task.¹

After several examples of conservation of syntax and morphology, the next section illustrates the conservation of L1 properties of lexical items.

6. Conservation and development of lexical items

Lexical items are combinations of properties: Sound and meaning properties which can be read, or interpreted, by other cognitive systems on the one hand, and formal features such as structural case and categorial features which cannot be interpreted at an interface level (Chomsky 1995). All properties are conserved except the sound properties or the phonological matrices. In most cases, this conservation cannot be observed because there is no difference in the semantic-conceptual and formal features of a lexical item (a case of 'positive transfer' in old terms). In Table 1, for instance, the Turkish lexical item for 'car' does not differ from the Dutch and the English item, except for the phonological matrix.

Evidence for the conservation of lexical properties becomes manifest, when an L2 phonological matrix is mapped on an L1 bundle of features that differs from the L2 bundle of features. Such mismatches occur both for semantic-conceptual values and for formal features. The Turkish learner of Dutch, for instance, uttering the sentence in (9) matches both semantic aspects of the Turkish verb *içmek* with the Dutch verb *drinken* ('to drink') that does not have the aspect of 'to smoke'.

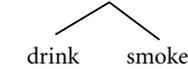
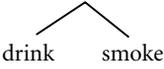
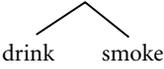
- (9) als ik marlboro drinken
 when I marlboro drink
 'when I smoke a marlboro'

Table 1. Lexical items of the concept ‘car’ compared for three languages

	Turkish	Dutch	English
– phonological matrix	/araba/	/auto/	/car/
– semantics	‘car’	‘car’	‘car’
– formal features	[+N, -V] [3 person] [singular] [nominative]	[+N, -V] [3 person] [singular] [nominative]	[+N, -V] [3 person] [singular] [nominative]

This mapping of the L2 phonological matrix on L1 conceptual-semantic features is schematically represented in Table 2.

Table 2. Conservation in the learning of lexical items

	L1 item Turkish	L2 item Dutch	Learners’ variant
– phonological matrix	/içmek/	/drinken/	/drinken/
– semantics	‘to put something in something else’ 	‘to drink’ 	‘to put something in something else’ 
– formal features	[-N, +V]	[-N, +V]	[-N, +V]

The next example of lexical conservation is the (mis)match of an L2 phonological matrix and L1 formal features. The examples were found in the speech of L2 learners with a Moroccan Arabic language background. Fatima produced the sentence in (10a), somewhat later the one in (10b), and (10c).

- (10) a. ik Ø klein winkel (months: 1–27)
I small shop
‘I had a small shop’
- b. ik met klein winkel (months: 3–18)
I with small shop
‘I had a small shop’
- c. ik heeft 47 jaar (months: 9–25)
I have-3SG 47 years
‘I am 47’

In Moroccan Arabic, a verb like *to have* is lacking. Clausal possession is expressed by a locative construction of the type: *I, at me a book* (= I have a book). Just like it was the case for the genitive case marker, as in (1), L2 learners start with an empty (Ø)

Table 3. Vocabulary-internal development of the L2 lexical item *heeft*; differences with regard to previous phase are in italics

	phase 1	phase 2	phase 3	target state
– phon. matrix	/Ø/	<i>/met, bij/</i>	<i>/heeft/</i>	/heeft/
– semantics	‘with, at’	‘with, at’	‘with, at’	‘has’
– categorial value	[-N, -V]	[-N, -V]	[-N, -V]	[+Agr, +T, +P]
– subcategorization frame	[-DPclitic]	[-DPclitic]	[-DPclitic]	[DP-]
example	ik Ø winkel	ik <i>met</i> winkel	ik <i>was heeft</i> winkel	ik <i>heb</i> een winkel

attained by all learners, the target state only by three out of the four Moroccan learners. The phonological matrix alters first (the phases 1, 2, and 3), subsequently the feature bundle. That is obvious from the perspective of the learner. What becomes manifest to him as clear and unambiguous, can be altered first. Alteration of the categorial value is difficult and can only be acquired after a long exposure to L2-data and after analyzing and re-analyzing one’s own speech.

7. Conclusions

The explanation of the alteration process presented here (see Van de Craats 2000 for structural and quantitative analyses) resembles most Schwartz & Sprouse’s FT/FA-hypothesis. The latter, however, does not provide a satisfactory explanation of bare noun phrases and absence of functional elements. By an interaction of syntactic and lexical development, a better explanation of the L2 facts is possible. By depicting the lexical development, as done for the L2 target item *heeft* in Table 3, it can also be explained why functional elements are more difficult to acquire than lexical elements like content words: In addition to the fact that they have little semantic content and they are less salient in the environmental input, they differ more in the structure of their feature constellation. Therefore, it takes more time to discover each of the composing features.

Notes

* The research for the dissertation was carried out at Tilburg University.

1. Learning the vocabulary of a new language is influenced by factors like the perceptual salience or visibility of lexical items, their meaningfulness, and their pragmatic relevance (see Van de Craats 2000 for the lexical development).

References

- Chomsky, N. (1995) *The Minimalist Program*. Cambridge, Massachusetts, MIT Press.
- Craats, I. van de, (2000) *Conservation in the acquisition of possessive constructions. A study of second language acquisition by Turkish and Moroccan learners of Dutch*. PhD dissertation, Tilburg University.
- Craats, I. van de, N. Corver & R. van Hout (2000) 'Conservation of grammatical knowledge: On the acquisition of possessive noun phrases by Turkish and Moroccan learners of Dutch'. *Linguistics*, 38, 221–314.
- Craats, I. van de, N. Corver & R. van Hout (2002) 'Conservation in the acquisition of HAVE-clauses by Turkish and Moroccan learners of Dutch'. *Bilingualism: Language and Cognition*, 5, 2, 147–174.
- Eubank, L. (1996) 'Negation in early German-English interlanguage: More valueless features in the L2-initial state'. *Second Language Research*, 12, 73–106.
- Freeze, R. (1992) 'Existentials and other locatives'. *Language*, 68, 553–595.
- Moro, A. (1997) *Predicative noun phrases and the theory of clause structure*. Cambridge, Cambridge University Press.
- Odlin, T. (1989) *Language transfer. Cross-linguistic influence in language learning*. Cambridge, Cambridge University Press.
- Perdue, C. (1993) *Adult language acquisition: Cross-linguistic perspectives*. Cambridge, Cambridge University Press.
- Schwartz, B.D. & R. Sprouse (1996) 'L2 cognitive states and the Full Transfer/Full Access hypothesis'. *Second Language Research* 12, 40–72.
- Vainikka, A. & M. Young-Scholten (1996) 'Gradual development of L2 phrase structure'. *Second Language Research*, 12, 7–39.
- VanPatten, B. (1994) 'Evaluating the role of consciousness in second language learning acquisition: Terms, linguistic features and research methodology'. *AILA Review*, 11, 27–36.
- VanPatten, B. & T. Cadierno (1993) 'Explicit instruction and input processing'. *Studies in Second Language Acquisition*, 15, 225–243.