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THE ROLE OF *IS* IN THE ACQUISITION OF FINITENESS BY ADULT TURKISH LEARNERS OF DUTCH

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This article deals with the interlanguage of adult second language (L2) learners acquiring finiteness. Due to the inaccessibility of bound inflectional morphology, learners use free morphology to mark a syntactic relationship as well as person and number features separately from the thematic verb, expressed by a pattern like *the man is go*. Results from longitudinally collected production data of Turkish learners of Dutch are reported and present evidence for the claim that (a) verb movement and production of inflectional morphology develop separately in various developmental steps and (b) finite forms in nonfinite contexts (and vice versa) are by-products of this development. Moreover, all *is*-patterns in different Germanic languages can be explained by the application of minimalist theory of verb movement and recent views on morphology. *Is*-patterns that correspond neither to the first language nor to the L2—a poverty-of-the-stimulus problem—turn out to be possible in other languages of the world and are constrained by Universal Grammar.

This article focuses on a striking, systematic pattern in the acquisition of finiteness by adult Turkish learners of Dutch, in which both syntactic position and morphological form play a decisive role. The pattern is intriguing because it exists neither in Turkish nor in Dutch and is related to verb movement. In this pattern, the verb form *is*—at first glance, the third person singular form of the

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copula *zijn* “to be”—and a thematic verb, either in an infinitival or an inflected form, are combined in a sentence, as in (1)–(3), taken from the Dutch part of the European Science Foundation (ESF) corpus (Perdue, 1993) and produced by one of the Turkish adults learning Dutch in a naturalistic setting.¹ The pattern with an infinitival form (nonf) will be called the basic *is*-pattern, as it is the most frequent one; the pattern with an inflected form will be called the inflected *is*-pattern. There are also utterances in which *is* occurs twice, as illustrated in (3).

- (1) Basic *is*-pattern
Hij is lopen (Target: *Hij loopt*)
 he is walk-NONF
 “He walks”
- (2) Inflected *is*-pattern
Hij is liegt (Target: *Hij liegt*)
 he is lie-3SG-PRES
 “He lies”
- (3) Double *is*-pattern
Dan is die man is komt hier (Target: *Dan komt die man hier*)
 then is that man is come-3SG-PRES here
 “Then the man comes here”

Such utterances occur not only in the spoken production data of the Turkish uninstructed second language (L2) learners with a low level of education in the ESF corpus (see Starren, 2001) but also, in the present study, in the production data of Turkish adults, also with low levels of education, learning Dutch in an instructed classroom setting. It will be argued that these *is*-patterns are precursors of verb movement, not only in the acquisition of Dutch but also in other Germanic languages. Moreover, various accounts will be presented as well as a new account based on a minimalist copy and deletion approach.

BACKGROUND

Is-Patterns in L2 Dutch

The Dutch part of the ESF corpus (Perdue, 1993) comprises a large number of utterances with *is*-patterns. Before the *is*-patterns emerged, during the first 9 months of the project (Cycle 1), the two Turkish learners primarily produced long verb forms that cannot be discerned from infinitives, as in (4).²

- (4) Typical long form
Dan mens brief lezen (Target: *Dan leest de man de brief*)
 then man letter read-NONF
 “Then the man reads the letter”

In Cycle 2 (the second 9 months), the *is*-pattern emerged. Only the most advanced learner, Ergün, produced *is*-patterns: 35% in Cycle 2 and 42% in Cycle 3, including twice as many long forms as short forms (see Starren, 2001). It turns out to be difficult to determine the meaning of the element *is*. Starren argued that the double *is* in (3) comprises two different functions depending on its position before or after the first noun phrase (NP)—that is, the subject. In her view, presubject *is* marks a topical element, whereas postsubject *is* marks an aspectual element. Starren based her argument on the structure of earlier developmental stages in which lexical elements in the same positions express tense and aspect. This is illustrated in (5a), in which the first element, *gisteren-jaar* “yesterday year,” has the topical function of anchoring the utterance on the time axis. The adverb *altijd* “always” expresses the aspectual function. In (5b), the postsubject *is* occurs in the position of the aspectual adverb. This *is* may have two different aspectual meanings: durativity and completion. Which aspectual meaning it expresses needs to be inferred from the context, although the context of (5b) is ambiguous in this respect. Example (5c) illustrates Starren’s conclusion that presubject *is* as a topic marker (cf. Zobl, 2002, for *is* by Japanese learners of English) encodes the topic time and that postsubject *is*—as an aspectual marker—encodes the perfect aspect (and *is*, in that function, the precursor of an aspectual auxiliary).

- (5) Topic-subject-aspectual marker word order
- a. *Gisteren-jaar ik altijd ongeluk maken*
 yesterday-year I always accident make
 (Target: *Vorig jaar had ik altijd ongelukken*)
 “Last year I always made accidents”
 - b. *Dan hij is lopen* (Target: *Dan is hij gelopen*)
 then he is walk
 “Then he walks”
 - c. *Dan is die man is komt hier* (Target: *Dan is die man hier gekomen*)
 then is that man is come-3sg here
 “Then that man has come here”

***Is*-Pattern in L2 German**

Haberzettl (2003) came across the *ist*-pattern (equivalent to the Dutch *is*-pattern) in the data of Turkish schoolchildren learning German in an immersion setting. In free conversations and picture story-tellings, Haberzettl found both the basic *ist*-pattern and the inflected *ist*-pattern, the former emerging first. Examples from her data are given in (6a) and (6b).

- (6) a. Basic *ist*-pattern
Eine Junge ist die Fussball spielen (Target: *Ein Jungen spielt Fussball*)
 a boy is the football play
 “A boy is playing football”

b. Inflected *ist*-pattern

*Quack ist nicht Geld kommt [= bekommt]*³

Quack is not money gets

(Target: *Quack bekommt kein Geld*)

“Quack does not get money”

Haberzettl listed all of the utterances of one learner consisting of a verb and at least one additional complement. Her data show the emergence and decline of the *ist*-pattern, which appeared between a subject (S)-object (O)-verb (V) stage with uninflected verbs and a SVO stage with inflected verbs. The highest number of *ist*-patterns that occurred in her data was 41%.

Haberzettl (2003) argued that the *is*-patterns she found differ from the patterns in Starren and van Hout (1997) and Starren (2001) in two respects: (a) She did not find utterances with two so-called proto-auxiliaries and (b) the interpretation of *ist* to express either an imperfective or a perfect aspect fits in many cases but not in all. In her view, it is problematic that (a) finite verb forms that express ongoingness also occur and (b) *ist* is also found in combination with a past participle without a perfect aspect, as in (7). However, this is also the case in Starren and Starren and van Hout: *is*-patterns co-occur with short forms and past participles.

(7) *Der ist so gemacht* (Target: *Er macht so*)

he is so done

“He does like this”

As the *ist*-pattern is not the result of the learners' encoding of specific functional markings, Haberzettl argued that *ist* is to be viewed as the linking element between frequently used chunks. She referred to the cut-and-paste technique of a 2-year-old child learning first language (L1) English (see Tomasello, 2000, for details) and termed this strategy for L2 learners “tinkering with chunks” (p. 57).

***Is*-Patterns in L2 English**

Spontaneous Learner in the ESF Corpus. Ravinder, a learner of English with a Punjabi language background, produced all of the types of *is*-patterns, including the double *is* (cf. Huebner, 1989; Huebner, Carroll, & Perdue, 1992).⁴ Huebner distinguished three utterance types in which *is* occurs: with transitive verbs (8a), with intransitive verbs (8b), and in utterances consisting of an adjective (Adj), a noun (N), or a prepositional phrase (PP) as in (8c) combined with *is* (i.e., in a copula construction). The three sentences in (8a) are instances of, respectively, the basic, the inflected, and the double *is*-pattern, (8b) is also an instance of the basic *is*-pattern, and (8c) is an instance of a copula construction.

- (8) (is) NP₁ (is) V NP₂ (PP) word order
- a. Transitive verbs
 - i) **Is** looking bill
 - ii) **Is** Charlie said to girl
 - iii) Then **is** girl **is** push the policeman (Huebner, p. 122)
 - b. Intransitive verbs
 - Cake man* **is** again go to police (Huebner, p. 126)
 - c. Predicative construction (*is* followed by an Adj, a NP, or a PP)
 - Is** too much (Huebner, p. 122)

Huebner (1989) distinguished utterances with transitive verbs from those with intransitive verbs because he assumed that *is* in Ravinder's data is an expression of viewpoint. He argued that because viewpoint perspective is expressed in Punjabi (an aspectual split-ergative language with both ergative-absolutive and nominative-accusative case marking) by agreement marking of the verb either with the patient (absolutive) or the agent (nominative), this L2 learner tried to find an equivalent of viewpoint expression by means of *is*. According to Huebner, *is* has a referring function, as shown in (9a): NP plus *is* and *is* plus NP are mainly used to reintroduce the main character, but, in Cycle 3, *is* plus NP, as illustrated in (9b), has a consistent function—to signal a new viewpoint.

- (9) a. **Is** (= Charlie and the girl) *talking and looking*
 (Target: *They are talking and looking*)
- b. Then **is** (*I think*) *wife and husband* (Target: *There's a wife and husband*)
- c. **Is** *husband go to (er work)* (Target: *There's the husband going to work*)

Huebner also observed cases with both prenominal and postnominal *is*, which he considered to be more problematic. Those are cases viewed in the present article as double *is*-patterns.

The *is*-patterns occur with increasing frequency in Ravinder's data: 13% in Cycle 1, 23% in Cycle 2, and 32% in Cycle 3 (Huebner, 1989; Huebner et al., 1992). This increasing number of *is*-patterns is similar to what was seen in Ergün's data (up to 42% in Cycle 3). Huebner concluded that this growth is caused by Ravinder's developing system of viewpoint marking. The number of *is*-patterns is comparable to that observed for Haberzettl's (2003) informant (41% in the ninth interview). For the adult learners Ergün and Ravinder, a decrease and complete disappearance of the *is*-pattern is not at issue.

Spanish Learners of L2 English. Fleta (2003) not only noted that insertions of *is* have been found in the interlanguage of child learners of English with different language backgrounds (French, Russian, and Bantu) but also found basic *is*-patterns in her own longitudinal data of Spanish children learning English in an immersion school.⁵ The data were obtained in semispontaneous story-tellings and role-playing. This yielded many basic *is*-patterns, as in (10a), in which *is* follows the subject. To know whether child L2 learners also use verb movement in *yes/no* questions, Fleta carried out a

cross-sectional study: She induced primary school children to produce interrogatives, as in (10b) and (10c), in which *is* appears after as well as before the subject. This shows the first steps of subject-auxiliary inversion in English.

- (10) a. *The zebras **is** eat grass*
 "Zebras eat grass"
 b. *The frog **is** have head?*
 "Does the frog have a head?"
 c. ***Is** he can jump?*
 "Can he jump?"

She concluded that *is*-insertion becomes systematic in a specific interlanguage stage just before targetlike mastery of verb movement.

Fleta (2003) did not compute the percentage of *is*-patterns with regard to inflected and uninflected thematic verbs so a quantitative comparison with the data of Starren (2001), Huebner (1989), and Habertzettl (2003) is not possible. Instead, she provided a morphosyntactic account for this phenomenon, claiming that her child L2 learners found *is*-insertion more economical than movement of the thematic verb. In other words, it is easier to insert a suppletive form *is* than to inflect a thematic verb or to invert the subject and the auxiliary.

Hawkins (2001) provided a syntactic account, taking examples from earlier research and claiming that *is* or *do* are the markers of a new functional projection, the complementizer phrase (CP), for a learner who indicates a question. Japanese learners of English (Zobl, 2002) produced *is* when acquiring agreement. This indicates the acquisition of a new projection agreement phrase (AgrP)—not found in Japanese—that seems to function as a topic marker.

Is-Patterns in L1 English and Dutch. The insertion of *be* forms into English interrogative sentences, as illustrated in (10c), is not restricted to L2 learners. It is also found in children acquiring their L1 (Radford, 1990; Roeper, 1992). According to Roeper, these *is*-insertions do not express modality, tense, or agreement but precede syntactic categorization and are produced as dummies to identify the functional category complementizer (C) during a short stage of acquisition. Hence, *is*-insertion is similar to *do*-insertion.

Whereas in English *do*-insertion is obligatory in negative and interrogative sentences, in Dutch the insertion of *doen* "to do" belongs to the substandard variety and appears in L1 acquisition as well. However, in child L1 Dutch, forms of *zijn* "to be" are rare. According to Blom (2003), it is not clear whether *is* in *kindje is spelen*-NONF "child is play" is a dummy or a precursor of the prepositional infinitival construction *het kindje is aan het spelen* translated as either "the child is on the play" or "the child is playing." Jolink (2005) claimed that, during a short period, children use *is* plus infinitive as the aspectual counterpart of *zijn* "to be" plus past participle: The former construction refers to uncompleted events; the latter refers to completed ones. This is very similar to the basic *is*-patterns of adult L2 learners.

Proposing a Morphosyntactic Account of *Is*-Patterns

It has been shown that there is no agreement on the account of the three types of *is*-patterns. Whereas some researchers focused on finding a functional or semantic account of *is*-patterns (Huebner, 1989; Starren, 2001), others (Haberzettl, 2003) cast doubt on a semantic account. For that matter, a semantic account alone is not adequate without explaining how *is* is integrated in a syntactic structure. Zobl (2002) and Hawkins (2001) provided a syntactic account in which they related one of the *is*-patterns to the activation of a new AgrP or CP projection. However, they did not have the number and variety of *is*-patterns that Fleta (2003) reported and that have been found in the present study.

The emergence of *is*-patterns is not an isolated phenomenon but should be viewed as part of the acquisition of verb placement. This issue has been dealt with in particular with regard to German, but it is also relevant for Dutch, as its syntactic structure is very similar to German. Researchers like Clahsen and Muysken (1986, 1989), Clahsen (1988), and Meisel (1991, 1997) have argued that whereas V movement and agreement seem to be linked together in L1 acquisition, finiteness and verb placement seem to be unrelated in SLA. Meisel (1991), for instance, found that infinitives and bare stems occur in positions in which inflected verb forms were expected and that finite (f) forms are found in nonfinite positions.

Here, it is claimed that all *is*-patterns can be accounted for through the adoption of a minimalist theory of verb movement and recent views on morphology. This leads to the following two hypotheses:

1. Verb movement and production of free (instead of bound) inflectional morphology develop separately in several developmental steps.
2. *Is*-patterns, nonfinite forms in finite contexts, and finite forms in nonfinite contexts are by-products of this development.

Morphology Separated from Syntax. In the last few years, considerable attention has been paid to the variability of inflectional morphology expressing agreement and tense. This variability manifests itself in spontaneous production and is pervasive during the course of acquisition. This is in contrast with the development of syntax, which seems to be successful (e.g., Haznedar & Schwartz, 1997; Lardiere, 1998a, 1998b; Prévost & White, 2000). Haznedar and Schwartz and Prévost and White argued for the missing surface inflection hypothesis. Lardiere (1998a, 1998b, 2000) claimed that mapping or interface problems between syntax and morphology are involved: The morphological component has problems reading the grammatical features (e.g., Halle & Marantz, 1993). Mismatches may occur between abstract morphosyntactic properties (formal features) and their associated surface forms (phonological matrixes) as in (11a) for a verb form and (11b) for a nominal form. In (11a), the phonological matrix /blijven/ is raised out of the

verb phrase (VP) and maps onto the formal features of third person singular. Similar infinitival forms occurring in a finite context have been observed by Lardiere, Haznedar and Schwartz, Prévost and White, and others. In (11b), the phonological matrix /jongens/ maps onto a singular feature (there is only one boy visible in the picture). This is due to morphological inability.

- (11) a. Mismatched verb form
- | | |
|---------------------|---|
| Phonological matrix | /blijven/ |
| Semantics | [stay-NONF] |
| Formal features | [3SG] |
| Target | <i>Vader blijft daar</i> |
| Relevant utterance | * <i>Vader blijven daar</i>
*“Father stay there” |
- b. Mismatched nominal form
- | | |
|---------------------|--|
| Phonological matrix | /jongens/ |
| Semantics | [boy-PLUR] |
| Formal features | [3SG] |
| Target | <i>De jongens slapen</i> |
| Relevant utterance | * <i>De jongens slaapt</i>
*“The boys sleeps” |

Minimalist Copy and Deletion Approach. In the Minimalist Program (Chomsky, 1995), a clear distinction is made between syntax as the structure building component and the lexicon from which lexical items are selected before being inserted in syntactic positions that share the features of the lexical item selected. This involves that, for instance, a verb with person, number, and tense features and with the corresponding morphemes is directly inserted under V (within VP) and is moved to the appropriate functional head for feature checking only later in the derivation. The lexical content is moved as well, together with the grammatical features: This results in the movement of the entire verb. Strong movement can be seen as a copying operation of formal features that moves the phonological matrix to a higher functional head. After copying, only a trace is left, and the original content is deleted. In some cases, however, the trace is not (completely) deleted. This results in doubling constructions in which a subject or a question word is doubled (Barbiers, 2006, for Dutch; Fanselow & Cavar, 2002, for German).⁶ More variation is possible: Copying can be optionally partial—only selected features are copied—(Chomsky), or deletion can be optionally partial—not all features that have been copied are deleted—(cf. Fanselow & Cavar; Nunes, 2005). Partial copying is also an option in Dutch and Flemish dialects (Barbiers); for instance, verb doubling, as in (12), where the light verb *doen* “to do” and the thematic verb *afwassen* “to wash the dishes” express together what is done by one finite verb form in standard Dutch. The features [1SG] and [PRES] are copied to a higher functional head and spelled out on the light verb (*doen* “to do”); other features are not copied.

- (12) *Ik doe de kopjes afwassen*
 I do-PRES-1SG the cups off-wash-NONF
 "I wash the cups"

Because the copying process occurs from right to left in the lexical string, or upward in the syntactic tree, partial copying involves that a less specified lexical item always precedes a more specified one or results in the underspecification of the higher element in the chain, as features that do not belong to the original feature bundle cannot be copied. Thus, the inverse of the *is*-patterns presented in (1)–(3), in which the thematic verb precedes *is*, cannot occur.

In the SLA of Dutch, the contrary may be found, as illustrated in (13a) and (13b), in which the verb form (*krijg* "get-1sg" and *doet* "do-3sg") is more specified than the trace, an infinitival form. However, for a learner, *krijgen* "get-NONF" bears the same features as *krijg* "get-1sg"; only the surface form differs. Thus, *krijgen* "get-NONF" is a default form with which Turkish learners start the learning of verbs. Hence, (13a) and (13b) are cases of full copying in which the phonological matrixes differ due to morphological inability.

- (13) a. *Ik krijg; niet sociale dienst geld krijg;*
 I get-1SG not social-services department money get-NONF
 (Target: *Ik krijg geen geld van de sociale dienst*)
 "I don't get money from the social services department"
- b. *Die jongen doet; dicht doen;* (Target: *De jongen doet dicht*)
 that boy do-3SG closed doe-NONF
 "The boy closes the door"

This may imply that a learner's variant with a nontarget surface form is inserted in syntax before movement. Notwithstanding this mismatch, the syntactic structure can be built up and a wrong surface form can be copied to a higher position, as shown in (13a) and (13b).

The Role of the L1. The L1 plays a role in multiple ways. In the first place, the L1 structure seems to be the reason why Turkish learners of Dutch acquire different elements from the environmental input than, for example, Moroccan learners. Both groups consider the Dutch input from a L1 viewpoint and expect to find the thematic verb at a different position in the sentence: Turkish learners (with SOV basic word order) at the end of the clause and Moroccan learners (with SVO or VSO basic word orders) at the first, second, or third position in the sentence (when they adjoin an adverbial element). As learners may find thematic verbs in both positions, Turkish learners will mainly acquire infinitives (e.g., *komen* "to come") and Moroccan learners will mainly acquire inflected forms (e.g., *kom(t)*-1, 2, 3sg "come(s)" or *komen*-PLUR "come"). Both language groups map different phonological matrixes onto the same feature bundle consisting of person, number, and tense features. Therefore, comparable to what Jansen, Lalleman, and Muysken (1981) claimed in their alternation hypothesis, it is assumed here that the L1

- (15) Syntactic structure of the Dutch matrix clause
 [CP vader [C' komt_{tj}] [AgrP [TP [NegP niet [VP terug *tj*] Neg <sub> *tj*]
 father comes not back
 T <sub> *tj*] Agr <sub> *tj*]]]
 "Father does not come back"</sub></sub></sub>
- (16) With a modal
Vader kan niet terugkomen
 father can not back-come-NONF
 "Father cannot come back"
- (17) In an embedded clause
 ... [CP dat [AgrP vader [TP [V *t_i*] *t_i*] terugkomt_{*t_i*}]]
 "... that father comes back"

The verb *zijn* "to be" has two functions: It may be a copula or an auxiliary. When it is a copula, as in (18a), it is located in the head of Agr between the subject and a nominal or prepositional predicate. When it is an auxiliary, as in (18b), it occurs between the subject and the thematic verb (in VP). In (18c), an *is*-pattern is provided for comparison. In Dutch, most verbs select the auxiliary *hebben* "to have," but unaccusatives and ergatives select the auxiliary *zijn* "to be."

- (18) a. Copula
De vrouw is oud
 "The woman is old"
- b. Auxiliary
De vrouw is gekomen
 "The woman has come"
- c. *Is*-pattern
 **Zij is naar de zee kijken* /*kijkt* (Target: *Zij kijkt naar de zee*)
 She is at the sea look-NONF /look-3SG
 "She is watching the sea"

The verb *zijn* "to be" has suppletive forms for first, second, and third person singular (*ben, bent, is*), whereas inflection of lexical verbs is marked by a zero morpheme (or stem) for first person singular and by *-t* for second and third person singular. Plural forms are identical to the infinitive.

THE STUDY

Data Collection and Participants

This analysis is based on longitudinal data of five Turkish learners. These participants were selected from a larger corpus that consisted of eight learners' semispontaneous and experimental data, the low-educated L2 and literacy acquisition (LESLLA) corpus, because they showed more development of

verb placement than the other learners. The five informants, 19–37 years of age, had received 5 years of education at a primary school in their native country and had been learning Dutch at a center for adult education for 7–18 months when the data collection began. The teaching method can be best characterized as reflecting a communicative approach. Some participants also profited from an immersion situation at work or from contact with Dutch neighbors, other mothers, and authorities. At the start of data collection, they were all beginners below the first level of the common European framework (Council of Europe, 2001), although some of them had been living in the Netherlands for 10 years or more when they started with the course. They had all mastered a basic vocabulary.

Elicitation Tasks

The data were collected over a period of 15–18 months and were divided into three cycles of 5–6 months. In each cycle, the same tasks were administered, ranging from open-ended (film retellings, picture story-telling), to more controlled (sentence completion), and strictly controlled tasks (oral sentence imitation). The purpose of these experiments was to determine whether learners were completely unaware of specific basic morphosyntactic aspects or whether errors were made due to the stress or cognitive load of a spontaneous speaking task.

The basic tasks reported here are two production tasks: Task 1 was a film retelling task, *Father and Daughter* (Jennings, Thijssen, & Dudok de Wit, 2000), and Task 2 was a picture story-telling task, *The Snowman* (Briggs, 1978). Some relevant items from two supplementary tasks not designed for triggering *is*-patterns were also used. The first of the two supplementary tasks was an oral sentence imitation task with three sentences containing an embedded clause in which *C* is phonologically realized through the complementizer *dat* “that.”⁷ In one of those sentences, *ik geloof niet* [_{CP} **dat** *Hamid ziek is*] “I don’t believe that Hamid is ill,” the complementizer was so difficult to perceive that the learners had to rely on their interlanguage grammar, which made it a good test of knowledge of complementizer use (providing evidence for the CP projection). The second supplementary task, sentence completion, was used for the selection of the participants in this study. Participants were asked to react to an oral stimulus while looking at the computer screen that showed a picture of (a) a man repairing a car and (b) a child reading a book. The oral stimulus was *Wat doet deze man / jongen? Hassan / Osman...* “What does this man / boy do?,” the correct answers were *Hassan maakt / repareert een auto* “Hassan repairs a car” and *Osman leest een boek* “Osman reads a book,” without explicitly expressing ongoingness, which is usual in Dutch.⁸ Because the participants had to react quickly, their answers were taken to reflect the current state of their grammatical knowledge. Three learners who used the

dummy verb form *is* “is” or *doet* “does” (comparable light verb form) in their immediate answers were selected. Additionally, two learners were selected because they produced a low number of *is*-patterns in the retelling tasks (see Table 1).

RESULTS

Quantitative Overview of the *Is*-Patterns

The answer patterns provided in Table 1 show that all five learners produced a sentence with the thematic verb in sentence-final position, transferred from their L1. More advanced learners make use of a more sentence-initial finite dummy form (i.e., *is* “is,” *doet* “does”), with the thematic verb remaining in sentence-final position. This seems to signal that the *is*-pattern is to be considered a developmental step in using sentence-initial verb forms.⁹

For these five learners, all samples were scanned for verb-final sentences (generally with long forms), verb-initial sentences (generally with short forms in first, second, or third position of the sentence), and *is*-patterns. Copulas and modals are not taken into account in Table 2 to enable a comparison with Starren (2001) and Haberzettl (2003), who did not include modals and copulas. Table 2 shows that all learners use *is*-patterns, but the extent to which this pattern is used differs. The percentage of *is*-patterns found in two of the participants’ data, Hüllya and Zilfi, is most comparable to what was found for Ergün (a maximum of 42%) investigated by Starren, for the child (41%) reported by Haberzettl, and for the Punjabi learner of English (an increasing number of *is*-patterns up to 32%) observed by Huebner (1989). In Table 2, the percentages are provided by cycle. When, however, the number of *is*-patterns is computed for each task, Zilfi has a score of 45% of *is*-patterns in Task 1 of Cycle 1 and Hüllya has a 51% score in Task 2 of Cycle 3. This emphasizes the overall decrease of *is*-patterns for Zilfi and the increase for Hüllya. As illustrated in Table 2, for Zilfi the decrease of *is*-patterns is accompanied by an increase of sentence-initial verbs.

This is also the case for Hilal, who produced fewer *is*-patterns than Hüllya and Zilfi, with a maximum of 7% at the end of the data collection but who showed a greater increase in sentence-initial verbs. It seems that for Hilal the *is*-pattern has done its work as a trigger for movement of thematic verbs: The *is*-pattern may disappear in Hilal’s production, as was observed in Haberzettl’s (2003) child learner. This sequential effect is not found in Hüllya’s data because the number of *is*-patterns is still increasing in the last cycle of data collection. Yet, the emergence of *is*-patterns in Cycle 2 has had an effect on the number of sentence-initial verbs: Hüllya replaces sentence-initial verbs with *is*-patterns.

Ayfer, the fourth participant, does not show any progress from Cycle 1 to Cycle 2. From Cycle 2 to Cycle 3, more *is*-patterns are produced and fewer

Table 1. Overview of the responses on the sentence completion task

Learner	Hassan...	"Hassan..."	Osman...	"Osman..."
Ayfer				
Cycle 1, 2, 3	<i>auto maken</i>	car make-NONF	<i>boek lezen</i>	book read-NONF
Emine				
Cycle 1, 3	<i>auto maak</i>	car make-STEM	doet <i>boek lezen</i>	does book read-NONF
Cycle 2	is <i>auto maakt</i>	is car makes-3SG	is <i>boek lezen</i>	is book read-NONF
Hilal				
Cycle 1, 3	<i>'n auto monteur</i>	a car mechanic	<i>boek lezen</i>	book read-NONF
Cycle 2	<i>auto maken</i>	car make-NONF	<i>boek gelezen</i>	book read-PAST PART
Hülya				
Cycle 1	is <i>auto maken</i>	is car make-NONF	<i>boek lezen</i>	book read-NONF
Cycle 2, 3	is <i>auto maken</i>	is car make-NONF	is <i>boek lezen</i>	is book read-NONF
Zilfi				
Cycle 1	<i>auto maken</i>	car make-NONF	is <i>boek lezen</i>	is book read-NONF
Cycle 2	doet <i>auto maken</i>	does car make-NONF	doet <i>boek lezen</i>	does book read-NONF
Cycle 3	<i>opereret</i> // is <i>oparen auto</i>	operate-3SG // is operate-NONF car	<i>boek lezen</i>	book read-NONF

Note: The symbol // indicates a correction.

verb-final sentences are produced. The fifth participant, Emine, on the other hand, shows the opposite: Fewer *is*-patterns co-occur with more verb-final sentences, which points to regression after Cycle 1. Regression is very plausible, as she stopped attending lessons during the course of the project due to pregnancy.

Overall, with the exception of Emine, Table 2 shows (a) a decrease over time of transfer from L1 Turkish (i.e., fewer sentence-final verbs), (b) an increase and subsequent decrease of *is*-patterns, and (c) an increasing number of verbs at the beginning of the sentence. These developments point to a systematic shift from L1-based structures with sentence-final verbs to a more targetlike sentence organization with verbs in the first part of the sentence.

If transfer is assumed to be at the L2-initial state, progress can be considered from two perspectives: the extent to which a learner deviates from the L1 grammar and the extent to which a learner approximates the L2 grammar. This allows the description of distinct interlanguage grammars that may occur in between the L1 and the L2. For instance, the *is*-pattern intervenes and also determines the extent to which a learner progresses. From the L1 perspective, the learner with the most verb-final sentences is the least advanced. This implies that Ayfer in Cycle 1 (94%) and Emine in Cycle 3 (90%) are the least advanced learners and that Zilfi in Cycle 3 (55%) is the most advanced. Emine turns out to have a regression (79%, 83%, and 90% of verb-final sentences in Cycles 1–3, respectively). From the L2 perspective, the number of targetlike verb-initial sentences is the main criterion. This means that Emine is the most advanced learner in Cycle 1, with 16% of verb-initial sentences, but Hilal (31%) and Zilfi (21%) have the most targetlike verb placement sentences at the end of data collection. Emine shows the same regression effect, but now with respect to targetlike verb-initial sentences. The *is*-pattern seems to be a transitional construction between verb-final and verb-initial sentence constructions.

Morphosyntactic Analysis of the *Is*-Patterns

The Basic *is*-Pattern. Hülya's answers on the car stimulus in the sentence completion task are repeated in (19). The answers in Cycles 1–3 have the same meaning, and it is less plausible that only the answers in Cycles 2 and 3, provided in (19b), express ongoingness, whereas the answer provided in Cycle 1 (19a) does not.

- (19) NP *is* OV_{nonf} word order
 a. *Hassan auto maken-NONF* (Target: *Hassan maakt de auto*)
 Hassan car repair
 b. *Hassan is auto maken-NONF* (Target: *Hassan maakt de auto*)
 “Hassan repairs the car”

Table 2. Overview of the three main sentence types in both production tasks

Learner	V sentence-final		<i>Is</i> -pattern		V sentence-initial		Total
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>
Ayfer							
Cycle 1	148	94	2	1	7	5	157
Cycle 2	183	96	0	0	8	4	191
Cycle 3	154	89	8	5	10	6	172
Emine							
Cycle 1	94	79	6	5	19	16	119
Cycle 2	96	83	2	2	17	15	115
Cycle 3	86	90	1	1	9	9	96
Hilal							
Cycle 1	123	87	4	3	14	10	141
Cycle 2	127	77	10	6	29	17	166
Cycle 3	93	62	9	7	47	31	149
Hülya							
Cycle 1	102	89	1	1	12	10	115
Cycle 2	73	84	12	14	2	2	87
Cycle 3	45	58	27	35	5	7	77
Zilfi							
Cycle 1	68	60	37	33	8	7	113
Cycle 2	69	59	31	26	18	15	118
Cycle 3	87	55	39	24	34	21	160

Note: Modals, copulas, and past participles are not included.

The basic *is*-pattern appears first and is the most frequent of the three *is*-patterns. Three stages can be distinguished: After an acquisition stage of only bare VPs, *is* seems to act as a free functional morpheme. The results in Table 2 for Zilfi show that this *is*-pattern decreases over time and may completely disappear at the end, similar to Haberzettl's (2003) observations of the Turkish child. In none of the five Turkish adults examined here has the *is*-pattern fully disappeared at the end of data collection, except perhaps for Emine, who produced only one *is*-pattern in Cycle 3. However, the almost complete absence of *is*-patterns in her data reflects regression rather than progress. Finite verb forms with a bound morpheme increase in number, but *is*-patterns still occur. The question arises as to what the syntactic status of *is* may be. Consider the examples in (20), taken from Ayfer, in which (20a) was produced in Cycle 2 and (20b) was produced in Cycle 3.

- (20) NP *is* Neg V word order
- a. *Vader niet komen*-NONF (Target: *Vader komt niet*)
father not come
 - b. *Papa is niet komen*-NONF (Target: *Vader komt niet*)
"Father doesn't come"

Whereas the examples in (19) show that the syntactic position of *maken* “make” is sentence-final—because it follows the object—and suggest that the position of *is* must be higher than VP and lower than Spec AgrP, the example in (20b) is even more precise in showing that *is* must be higher than the negation phrase (NegP) and lower than Spec AgrP (i.e., in the head of AgrP). This development from infinitive (20a) to *is* plus infinitive (20b) implies a considerable syntactic change. As argued here, it is likely that, for Turkish learners in the early developmental stage, the infinitive has tense, person, and number features. So *vader komen* “father comes” becomes the Dutch equivalent of *baba geliyor* “father comes,” whereas the target sentence is *vader komt* “father comes.” The fact that the sentential negator in (20b) is not a bound morpheme as in Turkish but rather a free functional morpheme seems to be acquired very early. This is important evidence that L2 learners can easily develop free functional morphemes. The negator *niet* “not” is base-generated in the Spec NegP position, whereas the head is phonetically empty, as in Turkish, and probably head-final like the other functional heads represented in (21).

- (21) [AgrP vader [TP [NegP niet [VP komen] Neg] T] Agr]
 father not come-NONF
 “Father doesn’t come”

The sentence Ayfer builds in Cycle 3 (20b) is an important step forward compared to (20a), as she has discovered that the functional head Agr can be phonetically filled and that AgrP can be a head-initial projection. This implies that, in principle, she can produce targetlike constructions with verb-initial sentences. Note that this structure is not fully fledged Dutch because there is no V-to-C movement, resulting in verb second (V2) constructions, which are completely lacking at this stage.¹⁰ The syntactic structure of (20b) is represented in (22).

- (22) Syntactic structure of a basic *is*-pattern
 [AgrP vader [Agr’ is [TP [NegP niet [VP komen] Neg] T] Agr]]
 father is not come-NONF
 “Father doesn’t come”

The question arises as to why *is*, as a possible spell-out of person and number features, would be introduced if the verb already has such features. When a learner has understood that the function of the copula is to carry agreement features (and at a later stage also tense features) and is able to generate a copula, *is* emerges also in sentences in which the thematic verb should overtly carry those features in the form of a bound morpheme. Similar to the expression of the sentential negator (a bound morpheme in the L1) by a free functional morpheme (*niet* “not”) in the L2, the bound agreement morpheme can now be seen expressed as the free morpheme *is*. This learner has thus

developed an interlanguage grammar in which agreement needs to be expressed separately from the thematic verb in the first part of the sentence. From a theoretical perspective, a Turkish learner has begun to acquire a movement operation that consists of a syntactic and a morphological component, operationalized in (23) and (24), respectively.

(23) The syntactic component

A new syntactic relationship has to be acquired: In L1 Turkish, this relationship was characterized as weak; in the L2, it is a strong relationship that entails visible movement, from V—via Tense (T)—to Agr.

(24) The morphological component

The learner has to become aware of the fact that the infinitive does not match the target form and that overt morphology is lacking.

For all five Turkish learners, the acquisition of this movement operation turns out to be a long process that takes place in a series of fine-grained alternating syntactic and morphological developmental steps. The first step is the emergence of the basic *is*-pattern. As *is* is often underspecified for number and tense (cf. *de ouders is niet slapen* “the parents do not sleep”), it may be assumed to be the marker of a structural relationship. In other words, *is* is not moved to the Agr position as an independent verb generated within the VP but rather inserted as the spell-out of one (or more) features of the thematic verb that are copied to Agr.

The Inflected *is*-Pattern. The inflected *is*-pattern is characterized by *is* plus a visibly inflected form, *hij is liegt* “he lies.” It is important to know that Turkish learners produce more basic than inflected *is*-patterns and produce them earlier as well. These conclusions can be inferred from the data presented in Table 3. Another conclusion to be drawn from Table 3 is that *is* plus infinitive is gradually replaced by *is* plus a (visibly) inflected form: This points to morphological development. As sentences with a negator, as shown in (25), provide more syntactic cues, negators are used to demonstrate how Zilfi deals with the phases of the overt movement operation: partial copying in (25a) and (25b), produced in Cycle 1 and Cycle 2, respectively, and complete copying and deletion in (25c) and (25d), produced in Cycle 3.

Table 3. Overview of the distribution of the types of *is*-patterns

Learner	Basic <i>is</i> -pattern	Inflected <i>is</i> -pattern	Double <i>is</i> -pattern	Total
Ayfer	8 (Cycles 1,3)	1 (Cycle 3)	1 (Cycle 3)	10
Emine	6 (Cycles 1,2,3)	3 (Cycles 1,2)	—	9
Hilal	20 (Cycles 1,2,3)	2 (Cycles 1,2)	1 (Cycle 3)	23
Hülya	38 (Cycles 1,2,3)	2 (Cycle 3)	—	40
Zilfi	78 (Cycles 1,2,3)	19 (Cycles 1,2,3)	10 (Cycles 1,2,3)	107

- (25) Target: *Vader komt niet*
 a. *Papa is niet komen*
 daddy is not come-NONF
 b. *Papa is niet kom*
 daddy is not come-1SG
 c. *Mijn vader kom_j terug t_j*
 my father come-1SG back
 d. *Kom_j niet t_j die vader*
 come-1SG not that father
 “Father does not come”

In (25a), the first stage of development is shown: The relationship is marked by an inserted *is* in the head of AgrP—this is primarily a syntactic operation. In (25b), the morphological aspect develops in situ: The thematic verb is visibly marked for singular (the stem). The next step is again a syntactic one: In (25c) and (25d), the underspecified surface form of the thematic verb is moved upward; there is no visible trace left within the VP. All features of the entire feature bundle plus the surface form have been cut (i.e., copied and deleted) and pasted (i.e., spelled out, except for the third person feature $-t$, as this feature has yet to be acquired). The last step in this development will be morphological—that is, getting the correct form *komt*-3SG “comes,” which raises to the head of AgrP.

Let us turn to the occurrence of *is* with an inflected form. Does the movement of the thematic verb entail the immediate deletion of the *is*-form that created the landing position for the movement operation? The pattern of acquisition turns out to be more fine-grained than expected. In (26), it can be seen how the inflected form has raised and adjoined to the head of AgrP, whereas *is* has not yet been deleted or incorporated in the thematic finite verb form (*ligt* “lies”).

- (26) *Zij is ligt_j in de boot* [_{VP} t_j] (Target: *Zij ligt in de boot*)
 she is lies in the boat
 “She is lying in the boat”

The development in (25) and (26) occurred over 15 months. Because Zilfi progressed slowly, these two examples show the alternation between syntactic and morphological steps in great detail. At this point in the developmental process, the target structure has not yet been attained because the finite verb should raise to C in order to make V2 possible.

This stepwise acquisition pattern appears to match the regression effect observed for Emine. The instances in (27) represent relevant data from the three cycles. The utterances from Cycle 1 illustrate all of the possible VP-internal morphological variations for a verb like *komen* “to come.” The first utterance of Cycle 2 (*misschien vader komt* “maybe father comes”) may be an instance of a finite verb in the head of AgrP, but because there is no negator or any adverbial element between the subject and the verb,

it is impossible to decide on the exact position of the verb. The remaining examples of Cycle 2 (27b) are clear instances of a VP-internal verb. As illustrated in (27c), the examples in Cycle 3 are similar to those in Cycle 1 (27a). The regressive pattern fits, in reverse order, the progressive pattern found for the other four learners.

(27) Development of the verb *komen* “to come”

a. Cycle 1

i. *Papa niet komen / kom / komt* (Target: *Papa komt niet*)
 Papa not come-NONF / come-STEM / come-3SG

ii. *Papa is niet komt* (Target: *Papa komt niet*)
 Papa is not come-3SG

b. Cycle 2

i. *Misschien vader komt* (Target: *Misschien komt vader*)
 Maybe father come-3SG

ii. *Dochter is ook weer komen* (Target: *De dochter komt ook weer*)
 Daughter is again come-NONF

iii. *Niet komen vader* (Target: *Vader komt niet*)
 Not come-NONF father

c. Cycle 3

i. *Vader niet komen / komt* (Target: *Vader komt niet*)
 Father not come-NONF / come-3SG
 “Father does not come”

The Double *is*-Pattern: A Second Movement. It has been demonstrated that strong movement (from V to Inflection [I] or Agr) occurs in two steps: a syntactic one and a morphological one, or a partial copy before a full copy. Here, it will be shown that a copy of the dummy verb *is* can emerge even higher in the syntactic tree, between an adverbial adjunct and the subject. The latter *is* instantiates a second movement operation in the data. Thus, the double *is*-pattern can be explained as a combination of two developmental steps: movement from V to I and then from I to C (the latter movement is unfamiliar to learners with a Turkish L1 background). The first step has both a morphological and a syntactic component, and the second step involves a purely syntactic purpose: to achieve the V2 effect.

So far, the *is*-patterns were divided into two types depending on the morphological status of the thematic verb: nonfinite or finite. Another division can be made depending on the position of *is* before or after the subject, following Starren (2001) and Huebner (1989). The problem for such a division is that Turkish allows subject drop, and, as an effect of transfer, this is also observed in the Dutch interlanguage of Turkish learners. Therefore, there are many cases in which *is* is linked to a nonfinite verb or a finite one, whereas the subject is lacking. Such cases are inconclusive for the syntactic analysis to decide whether the position of *is* precedes or follows the subject, as shown in (28). The adverb *nu* “now” is not decisive

either because it can be (a) an adjunction to AgrP as in (28b) or (b) an adverbial in Spec CP as in (28c).

- (28) Target: *Nu stopt ze met fietsen*
 a. Inconclusive pre- or postsubject *is*
Nu is stoppen fietsen
 now is stop cycle-NONF
 b. Postsubject *is*
 [AgrP nu [AgrP *pro is* [VP stoppen fietsen]]]
 c. Presubject *is*
 [CP nu is [AgrP *pro* [VP stoppen fietsen]]]
 “She stops cycling now”

In the utterances produced by Ayfer provided in (29a), in which *is* precedes the subject *papa* “father,” it is obvious that the position of the first *is* is in the head of CP, as represented in (29b). The functional heads C and Agr have become phrase-initial instead of phrase-final.

- (29) Target: *Vader komt niet*
 a. ***Is*** *papa is niet komen*
 is father is not come-NONF
 b. [C' is [AgrP papa is [NegP niet [VP komen]]]]
 “Father doesn’t come”

For Ayfer, the example in (29) is, unfortunately, the only clear case of pre-subject *is*. Hülya showed one instantiation of presubject *is*, which is not a part of the double *is*-pattern at the same time. The position of *komt* “come” is not clear-cut; it may also be within the VP, as illustrated schematically in (30).

- (30) ***Wanneer is vader komt*** (Target: *Wanneer komt vader?*)
 [CP *wanneer* [C' is [AgrP vader komt_i [VP t_i]]]]
 when is father come-3SG
 “When does father come?”

Although not all *is*-patterns with a presubject *is* are preceded by an adverbial of time, 50% of them are introduced in this way. The adjunction of an adverbial seems to lead to the insertion of *is* between the adverbial and the subject in C.¹¹ Only Zilfi produced a considerable number of *is*-NP-V patterns that increased over the three cycles—double *is*-patterns included. A similar tendency to start with an adverbial of time can be observed for the *is*-patterns with a phonetically empty *pro*; these are used by Zilfi, as shown in Table 4. Without an overt subject, however, it is not possible to determine where *is* has been inserted. From a developmental perspective, this stage can be considered a transition between the postsubject and presubject *is*-pattern. Table 4 gives an overview of the *is*-patterns with regard to the position of *is* vis-à-vis the subject, if present; the number of double *is*-patterns is not indicated

Table 4. Position of *is* in *is*-patterns

Learner	Postsubject	With phonetically empty <i>pro</i>	Presubject
Ayfer			
Cycle 1	1	1	0
Cycle 2	0	0	0
Cycle 3	2	6	1
Emine			
Cycle 1	5	1	0
Cycle 2	2	0	0
Cycle 3	1	0	0
Hilal			
Cycle 1	1	3	0
Cycle 2	7	3	0
Cycle 3	10	0	0
Hülya			
Cycle 1	0	1	0
Cycle 2	12	0	0
Cycle 3	26	0	1
Zilfi			
Cycle 1	9	26	9
Cycle 2	7	18	6
Cycle 3	8	19	12

Note: The number of *is*-positions is higher than the number of *is*-patterns for learners producing double *is*-patterns.

separately but has been integrated into the data. From Table 4, it can be inferred that (a) the emergence of *is*-patterns may be considered a sign of progress, (b) the postsubject *is* emerges before the presubject *is*, (c) Zilfi is the most advanced learner, using the CP projection, and (d) Emine stagnates and regresses. Zilfi does not seem to respect this order of emergence at first, but, in her data, the number of postsubject patterns is already decreasing in favor of finite forms and an increasing number of presubject patterns. In Cycle 3, Zilfi even starts to express the past tense in situ. The CP projection and the verb form *is* play a role in that process, as shown in (31).

- (31) *Toen is ze klein was* (Target: *Toen was ze klein*)
 then is she little was
 “At that time she was a little girl”

As illustrated in (31), the past tense is marked by the adverb *toen* “then” and by *was* “was” at the end of the clause. The only aspect that is not yet targetlike is that the verbal form *was* “was” has not raised. Even V2 has been applied by the spell-out of the features in C, resulting in a VS word order because the clause is introduced by an adverbial.

It has become clear that, in the learners' data, there is a relationship between Agr and C, on the one hand, and the basic realization of features under these heads: *is*—a kind of default verb without conceptual content—on the other hand. In a Dutch matrix sentence, C dominates the inflected verb, but, in a subordinate clause, C dominates the complementizer. The complementizer with the least semantic content in Dutch is *dat* “that,” as illustrated in (32). If there is a relationship between the activation of the CP projection and the realization of presubject *is*, there should also be a relationship between the CP projection and the realization of the complementizer.¹² The complementizer *dat* “that,” for instance, will not be realized by a learner as long as there is no evidence of this projection in the matrix clause (e.g., by the production of *is*). Therefore, it is expected that only L2 learners who use presubject *is* will produce the complementizer *dat* “that.”

In the oral sentence imitation task, the five participants were asked to repeat the sentence illustrated in (32), in which the complementizer was difficult to perceive because it followed the stressed negator *niet* “not,” requiring that the learners rely on their grammatical competence. The results on this specific item of the imitation task are rather clear-cut: In the first stage, the complementizer is omitted, as illustrated in (32b); in the next stage, the complementizer *dat* “that” is replaced by *is* (but only by those who can produce a presubject *is*-pattern), as in (32c), and only the most advanced learner, Zilfi, produces the complementizer, as shown in (32d).

- (32) a. Stimulus
Ik geloof niet dat Hamid ziek is
 I believe not that Hamid ill is
- b. Stage 1
Ik geloof niet Hamid ziek is
- c. Stage 2
Ik geloof niet is Hamid ziek is
- d. Stage 3
*Ik geloof niet **dat** Hamid ziek is*
 “I do not believe that Hamid is ill”

The Developmental Course of Finiteness and the Role of the *Is*-Pattern

The *is*-pattern in relation to the development of finiteness is examined here. Research questions to be considered are the following:

1. What is the structure of the sentence before the appearance of *is*?
2. How do other verb forms like copulas, modals, and auxiliaries develop, and what is their relation to the *is*-pattern?

3. What consequences does the appearance of the *is*-pattern have for the thematic verb in the sentence?

For the classification in Tables 5 and 6, it is assumed that an uninflected verb is VP-internal, as long as there is no counterevidence. Through transfer from the L1, a sentence-final infinitive can be followed by a subject, an (indirect) object, or an adverbial adjunct. Nonthematic verbs like copulas and modals are considered to be base-generated in I, not moved to that position (cf. Ouhalla, 1991). Thematic verbs are analyzed as situated in Agr when they are inflected and followed by a complement, a sentential negator, or an adverbial adjunct. The morphological form may be a correctly inflected form, a stem, or an infinitive. If the syntactic position of the inflected verb cannot be determined because there are not enough phrases in the sentence, the verb was not included in Tables 5 and 6. A double *is*-pattern is classified both under postsubject and presubject and not separately as a double *is*-pattern. Finally, a thematic verb is considered to be dominated by C only if it occurs in a presubject position, as in (33a) produced by Zilfi in Cycle 3. In (33b), this results in a targetlike V2 construction produced by Zilfi in Cycle 2.

- (33) a. **Kijk** kinderen nog een keer¹³ (Target: *Het kind kijkt nog een keer*)
 look-STEM children once again
 "The child looks once again"
 b. *Zelf doet sneeuwman licht aan*
 self does snowman light on
 (Target: *De sneeuwman doet zelf het licht aan*)
 "The snowman switches the light on himself"

In Tables 5 and 6, the data concerning the position of the verb are given in percentages. The production data of the two tasks (with an interval of 1 month) are separated to complete the developmental line of the informants as much as possible.

With regard to research question 1, the structure of the sentence before the emergence of the *is*-pattern, Tables 5 and 6 show that (a) the majority of the thematic verbs emerge first in a sentence-final position within the VP (more advanced learners have fewer VP-internal forms [e.g., Zilfi, Hülya, Hilal], and regression involves the production of more noninflected VP-internal verb forms than were produced in earlier cycles [Emine]), and (b) a few thematic verbs appear in the head of Agr as inflected forms at the same early stage as the VP-internal verbs (i.e., Ayfer in all three cycles; Hülya in Cycle 1). There are no participants for whom *is*-patterns are completely lacking in the first sample, which suggests that *is*-patterns precede and co-occur with inflected verbs in Agr. The same verbs often occur in a later stage of development also in *is*-patterns (e.g., *is* linked to different morphological forms of *komen* "to come").

With regard to research question 2, it has been observed that the underspecified copular form *is* emerges (in Agr) before (for Ayfer, Hilal, Hülya, and Zilfi)

or at the same time as modals (for Emine). The underspecified copular form also appears at approximately the same time as the *is*-pattern as well as before real auxiliaries—most auxiliaries produced by the participants are *is*-patterns with participles, as can be seen in Tables 5 and 6. Moreover, it was found that copular forms occur more frequently than bare modals.

With regard to research question 3, the effect of the appearance of *is* on the thematic verb can be observed most clearly in Hülya's data: An increase of copulas and *is*-patterns leads to a decrease in the number of early, inflected forms. In Cycle 2, Hülya seems to have replaced finite forms with *is*-patterns because finite forms are completely lacking in the sample from Task 2. The finite forms slowly come back in Cycle 3 and occur along with many copulas and *is*-patterns. This may indicate a restructuring of her interlanguage: Finite verbs are now moved from the VP instead of being inserted directly in Agr. For Hilal, an increasing, but still relatively low, number of *is*-patterns and copulas are produced together with a decreasing number of inflected verbs in Agr, until the sample from Task 2 in Cycle 2. In that sample, the number of thematic verbs that raise to Agr increases: Uninflected verb forms in Agr, as illustrated in (34), occur in 50% of the cases in which an inflected form would be required. For Hilal, the *is*-patterns seem to have affected her word order much more than her verbal inflection; there is full copying of features that take along the incorrect phonological matrix (i.e., the infinitive).

- (34) *De vader blijven daar lang in de zee*
 The father stay-NONF over-there long-time in the sea
 (Target: *De vader blijft lang op zee*)
 "The father stays on the sea for a long time"

Zilfi shows a slowly decreasing number of *is*-patterns (in Agr, from 24% in Cycle 1 to 14% at the end of data collection). She is the only participant who, at the end of data collection, has developed a substantial number of presubject *is*-patterns in C. After a stagnation in Cycle 2, Ayfer begins to produce more copulas and *is*-patterns. The Agr node gets activated and a modest number of inflected verbs appear in Cycle 3. Emine is able to use copulas, *is*-patterns, and inflected forms (first three samples) but falls back to an earlier developmental stage (copulas and *is*-patterns disappear, and the number of verb-final sentences increases).

One may wonder why *is* (as a part of the *is*-pattern) will emerge if a learner already has activated Agr, as shown by inflected verbs in that position (Hülya, for instance, used the inflected forms *kijk* "look" and *maakt* "makes" in Cycle 1 but *is kijken* "is look" and *is maken* "is make" in Cycle 2). The most plausible assumption is that learners cannot link the two separate positions of the verb in the L2 sentence and therefore create an intermediate solution, because they think that a finite thematic verb at the beginning of the sentence is wrong and that this position should be reserved for nonthematic verbs. Given the fact that modals never emerged before the copular form *is* and that *is*-patterns

Table 5. Stages in the development of finiteness (in percentages) in both semispontaneous production tasks

Learner	Stage	Form	Cycle 1		Cycle 2		Cycle 3	
			Task 1	Task 2	Task 1	Task 2	Task 1	Task 2
Ayfer	VP-internal AgrP	Thematic V in final position	89	91	94	91	76	88
		Copula	—	6	2	5	11	3
		Bare modal	—	3	—	—	—	1
		<i>Is</i> -pattern	3	—	—	—	5	3
		<i>Gaan</i> "go" + infinitive	1	—	—	—	—	2
		Thematic verb inflected	7	—	4	4	7	3
CP		Presubject <i>is</i>	—	—	—	1	—	
Emine	VP-internal AgrP	Thematic V in final position	70	73	65	88	91	78
		Copula	6	4	14	—	—	—
		Bare modal	3	4	—	3	—	10
		<i>Is</i> -pattern	1.5	6	4	—	—	1
		<i>Is</i> + past participle	1.5	—	—	—	—	—
		Modal + thematic verb	—	4	—	—	—	3
		Thematic verb inflected	18	9	17	9	9	8
Hilal	VP-internal AgrP	Thematic V in final position	78	84	74	67	65	60
		Copula	8	7	11	9	3	10
		Bare modal	—	—	—	—	2	—
		<i>Is</i> -pattern	3	2	7	3	2	6
		Modal + thematic verb	—	—	1	1	2	1
		<i>Is / heb</i> + past participle	—	—	4	1	—	—
		Thematic verb (un)inflected	11	7	3	19	26	19
CP		Presubject <i>is</i>	—	—	—	—	—	4

Hülya	VP-internal	Thematic V in final position	96	80	68	48	53	22
	AgrP	Copula	2	3	26	33	26	49
		<i>Is</i> -pattern	2	—	2	19	11	26
		Thematic verb inflected	—	17	4	—	5	3
CP	Presubject <i>is</i>	—	—	—	—	5	—	
Zilfi	VP-internal	Thematic V in final position	38	54	47	42	44	48
	AgrP	Copula	24	16	22	14	10	14
		<i>Is</i> -pattern	24	19	16	17	19	14
		Modal + thematic verb	—	5	—	4	1	2
	CP	<i>Is</i> + past participle	4	—	10	—	5	—
		Thematic verb inflected	3	5	4	16	16	15
		Presubject <i>is</i> or inflected verb	7	1	1	7	5	7

Table 6. Total number of utterances with a verb form

Learner	Cycle 1		Cycle 2		Cycle 3	
	Task 1	Task 2	Task 1	Task 2	Task 1	Task 2
Ayfer	69	99	63	138	93	99
Emine	65	77	56	73	32	78
Hilal	66	95	90	134	96	114
Hülya	57	65	57	77	55	80
Zilfi	79	91	73	93	100	117

never emerged before modals, it is more likely that the copula is the trigger for the movement operation (see also Vainikka & Young-Scholten, 1998). As the copula at the beginning of the sentence is salient and seems most appropriate—being a linking element without semantic content—to this group of learners, they start to overuse *is* and replace inflected thematic verbs with *is* plus infinitive (which entails the initial decrease of inflected verbs and the sparse use of modals plus infinitive). The most advanced Turkish learner, Zilfi, repeats this strategy for the activation of C: She copies the features of Agr on C and thus arrives at a V2 structure.

CONCLUSIONS AND DISCUSSION

The aim of this study was to provide a unified account for all *is*-patterns. It was claimed that—due to recent syntactic and morphological theories like the Minimalist Program and more particularly the copy and deletion approach as well as the separation of syntax and morphology—one morpho-syntactic account can unite earlier explanations of *is*-patterns. The focus of this study was on the data of five Turkish learners of Dutch, whose L2 development could be followed in great detail due to the longitudinal design and the fact that the learners acquired the new language slowly, as has been observed in many learners with only primary school education or less.

The data of the five Turkish learners support hypothesis 1: In adult SLA, free morphology replaces bound morphology at a stage of development preceding movement of the complete verb. Meisel's (1991, 1997) findings were also supported in the sense that verb movement and finiteness are not entirely related, as has been demonstrated in L1 acquisition. Inflectional morphology may emerge in the base position (VP-internally) but also later in the derivation. It also became manifest that *is* plays a role in both syntactic and morphological development. *Is* marks the relationship between two syntactic positions, either a weak (see Fleta, 2003, for data on L2 English) or a strong relationship (all other examples of movement to Agr or C). *Is* indicates the

landing position of movement and may also be the copy and its spell-out form as a free morpheme of person and number features separate from the thematic verb. Schematically, the order of the morphological development of thematic verbs can be represented by the stepwise development of the sentence *He writes a letter*, as in Table 7. This schematic order supports hypothesis 2 that *is*-patterns, nonfinite forms in finite contexts, and finite forms in nonfinite contexts are by-products of this development. Moreover, the data have shown that there is little variability in this order of appearance: Although Ayfer's production generally exhibits patterns typical of the VP and AgrP stage (see Table 7), one of her utterances demonstrates the copy of features from Agr to C, which is found in stage 7.

The proposed morphosyntactic analysis of *is*-patterns is also applicable to the data discussed by Starren (2001) and Haberzettl (2003): The order of the *is*-patterns, in V-to-I or I-to-C movement, is not reversed in any of their examples. Such an analysis would reject the copy and delete account. The same holds for the English data discussed by Huebner (1989), Zobl (2002), Fleta (2003), and Hawkins (2001, in which only presubject inflected *is*-patterns related to the syntactic position of C are discussed). Those examples show that, in English, *to do* is not the only dummy verb carrying person and number features; *to be* can also have this function, as suggested by Roeper (1999). Let us now turn to the explanation proposed by Huebner for the *is*-patterns in Ravinder's data.

Huebner (1989) provided an alternate analysis for the Punjabi learner of English. In Huebner's analysis, *is* figures in the nominal domain and has a pronominal character with a pragmatic function: that of focusing. In a bare position, *is* refers to persons mentioned before, *is* plus NP and NP plus *is* are mainly used to reintroduce the main character, and, in the last cycle, *is* signals a new viewpoint. Huebner's analysis does not seem plausible for several reasons. First, some L2 learners use the same postsubject *is* (e.g., the Turkish learners of Dutch and German; the Spanish learners of English in Fleta, 2003), whereas other L2 learners of English produce the same presubject *is* as the Spanish learners reported by Hawkins (2001) and Fleta without referring to persons. Second, Huebner attributed different functions (i.e., reference function and viewpoint marking) to the copular form; these differ radically from the function in the target language. Huebner interpreted *is* in utterances as *is looking to bill* or *is too much* as a pronoun referring to Charlie and the bill Charlie has to pay, respectively. Similar utterances occurred in the data from the Turkish learners and were analyzed here as utterances with a null subject and a copula. Finally, Huebner could not explain the double *is*-pattern. The morphosyntactic account adopted here can straightforwardly explain presubject *is*-patterns such as *is husband go to (er work)* and double *is*-patterns such as *then is girl is push the policeman*. These utterances differ from the interrogative constructions reported by Hawkins and Fleta, in that there is no need for a CP projection in English. In target English, *then* would be adjoined to AgrP, but because a CP projection is necessary to generate interrogative

Table 7. Morphological development of thematic verbs

Stage	Syntactic analysis	Example sentence "He writes a letter"
1	No morphological analysis of the thematic verb (a few finite verbs are directly inserted in Agr)	<i>(Hij) brief schrijven-NONF</i>
2	Partial copy: <i>is</i> in Agr (basic <i>is</i> -pattern)	<i>(Hij) schrijft-3SG brief</i>
3	No copy: finite form is base generated in V	<i>(Hij) is brief schrijven</i>
4	Partial copy: <i>is</i> in Agr, finite form in V (inflected <i>is</i> -pattern)	<i>(Hij) brief schrijft</i>
5	Full copy without deletion, (in) correct surface form	<i>(Hij) is brief schrijft</i>
6	Full copy with deletion, incorrect surface form	<i>(Hij) schrijft(t) brief schrijven</i>
7	Full copy with deletion, correct surface form (target)	<i>(Hij) schrijven een brief</i>
	Copy of features from Agr to C (double <i>is</i> -pattern)	<i>Hij schrijft een brief</i>
8	Copy to C, with deletion (target:V2)	<i>(Dan) is hij is een brief schrijven</i>
		<i>(Dan) is hij (is) schrijft een brief</i>
		<i>Dan schrijft hij een brief</i>

sentences, Huebner's Punjabi learner of English projects a CP and fills the head of CP with *is* instead. He even seems to do so when he wants to signal a new scene without using an adverbial as tense marker, as in *is husband go to (er work)* or *is Charlie said to girl*. Huebner's learner seems to overuse the CP (Recall that the Turkish learners showed the same tendency to use a temporal adverbial plus *is* in 50% of the cases.)

This brings us to the functional or semantic account of *is*-patterns proposed by Starren (2001). In her view, presubject *is* is primarily a topic marker that develops into a marker of tense, whereas postsubject *is* is an aspectual marker that expresses durativity or perfectivity. Before the emergence of the *is*-pattern, these functions are expressed by adverbial expressions. Although *is* may often express durativity or perfectivity in the ESF data produced by the Turkish speaker Ergün, such a reading is often less evident when watching the stimulus material, the silent movie *Modern Times* (Chaplin, 1936). Likewise, in Task 1, also a film retelling task, it is often hard to say whether an utterance like *papa is niet komen* means "father has not come" or "father does not come." If Starren's interpretation is right, one will expect a learner to say *he has not come* at a more advanced stage, but, in Cycle 2, the same learner in the same task produced an inflected form in the position of the infinitive *papa is niet kom-1SG* "daddy is not come" in which a present tense with the inflected verb before the negator is produced. An auxiliary of tense was not provided, but Zilfi produced a finite verb in sentence-initial position when she said *kom niet die vader* "come-1SG not that father," contrary to Starren's predictions. In sum, the verb form *is* behaves more like an auxiliary carrying inflection than like an auxiliary of aspect. In the picture story-telling, many *is*-patterns are linked to thematic verbs without explicitly expressing durativity or perfect aspect. It can be concluded that there is no hard evidence in the data for a semantic motivation of the *is*-pattern.

The data of the five Turkish learners of Dutch provide insight into an intriguing interlanguage pattern. As verb movement and inflectional morphology are hard to apply, the learners resort to easier (more economical) devices such as insertion of *is*. The frequent copula form *is* in the target language provides them with a linking element between subject and predicate. Learners start using the copula with a nominal predicate and subsequently overuse it with a verbal predicate, which is ungrammatical in the target L2. Therefore, these learners use the copula inappropriately: They consider it to be a dummy, as a carrier of inflection for a thematic verb. This dummy becomes the vehicle to mark new or newly activated functional heads, such as Agr and C, and to meet agreement requirements, as shown by the data of the more advanced learners Zilfi and Hülya. At first, no motivation could be found in the data for this copy strategy other than a syntactic one: The newly activated projection must be licensed. There is no clear semantic motivation for this strategy. The interlanguage grammar itself is constrained by Universal Grammar (UG) because dummies or light verbs are used in many languages—as is the case in the relevant target languages

discussed here—although not the verb *to be*. The inflected *is*-pattern is also a pattern governed by UG, as it occurs in languages that permit inflected modals and auxiliaries in combination with inflected thematic verbs, as in Moroccan Arabic (Harrell, 1962). The *is*-patterns, which both L1 and L2 learners of Germanic languages like Dutch, German, and English produce, point to a shared use of a UG-constrained pattern for the shared problems with verb movement.

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NOTES

1. The ESF corpus is a large crosslinguistic and longitudinal corpus collected in five European countries. In each country, the L2 development of four adult learners from two different language backgrounds was investigated (see Perdue, 1993). Two Turkish and two Moroccan learners are represented in the Dutch part of this corpus.

2. The two Moroccan learners from the ESF corpus, however, primarily produced typical short forms, consisting of a stem or a stem plus *-t* (inflection), as in *die man pakt die meisje* “the man catches the girl.”

3. Haberzettl (2003) viewed *kommt* “comes” as a participle (Target: *bekommen* “got”); it can also be viewed as a third person singular of the present tense (Target: *bekommt* “gets”). In that case, it is an inflected *is*-pattern.

4. In Huebner (1989), *is* is represented as [iz] and viewed as a pronoun (Klein & Perdue, 1992).

5. I am indebted to the anonymous *SSLA* reviewer who drew my attention to this article providing data very similar to mine.

6. An example of a doubly realized *wh*-word *wie* “who” (Barbiers, 2006) is provided in (i):

- (i) **Wie** denk je [**wie** ik in de stad heb gezien]?
Who think you who I in the town have seen
“Who do you think I have seen downtown?”

7. A sentence imitation task can tap a participant’s implicit knowledge of grammar. If a stimulus sentence contains a grammatical feature that has not been acquired, this feature will unconsciously be changed in such way that the sentence fits the participant’s own grammar (see, e.g., Bley-Vroman & Chaudron, 1994).

8. In Dutch, it is possible to express ongoingness with a prepositional infinitive construction, as in *Hassan is een auto aan het maken* “Hassan is repairing a car” (although this structure is more marked).

9. Here, the term *verb-initial* will be used for all sentences in which the verb appears in nonfinal position—that is, in first, second, or third position of the sentence: for instance, in a subject-less sentence (VO), in a sentence with subject (SVO), or in a sentence with subject and an adjoined adverbial before the subject (XSVO).

10. An adverbial element can be adjoined to AgrP, which results in a verb third order. Due to her lingering verb-final structural organization, Ayfer produces very few examples of this construction. One example is *drie keren fietse vallen* “the bike falls for the third time,” in which the verb *vallen* “fall” is nonfinite.

11. Those adverbials are time markers like *nou* “now,” *toen* “then,” *wanneer* “when,” and *nog een keer* “another time.” Only Zilfi produced other types of adverbials.

12. Whereas most subordination in Turkish is essentially an embedded gerund that precedes the finite verb, there is also evidence of full clausal complements with a complementizer in the head of C (Kornfilt, 1997). There is no clear evidence, however, for the position of C: sentence-final (with the complementizer *diye* “that” or “because”) or sentence-initial (with the complementizer *ki* “that”). Clauses with left-headed *ki* “that” are rather common in certain varieties of colloquial Turkish (Underhill, 1976).

13. Only one child is meant here.

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