

# The semantic knowledge base for the acquisition of negation and the acquisition of finiteness<sup>1</sup>

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## 1. Introduction

This study deals with constraints on the placement of the negator in Italian adult learner varieties of German. The aim of the study is to work out the principles that guide the learner in positioning the negator at different stages of (untutored) acquisition. Proceeding on the assumption that there are three closely related factors which are central in understanding the development of the placement of the negator: a) the learner's knowledge about the semantics of negation b) the structure of the utterance into which the negator is integrated and c) the interrelation of negation and finiteness, I will attempt to show that their interrelation can be readily explained when finiteness is understood as a semantic notion, an idea developed by Klein (1998).

Means of negation are attested at even the earliest stages of acquisition. In the course of the acquisition process negative elements are integrated into utterances of increasing structural complexity. The negator operates on a given structure and modifies it in a characteristic way (Dimroth and Klein 1996). The structural integration of the negator, therefore, depends both on the structural organisation that obtains at each stage of acquisition and on the way negation operates on that structure.

Principles of utterance organisation in untutored second language acquisition have been studied cross-linguistically by Klein and Perdue (1992, 1997). They differentiate between a "pre-basic learner variety", a "basic learner variety" and a "post-basic learner-variety". Their learner varieties are characterised as follows:

- i) *Pre-basic learner variety*: The characteristic feature of the pre-basic variety is the absence of lexical verbs. Utterance organisation is essentially determined by a pragmatic principle based on information structure: constituents that have background status precede those that have focus status (background < focus).
- ii) *Basic learner variety*: The lexicon is enriched by thematic verbs, i.e. verbs with a thematic role grid. The verbs occur in a base form unspecified for

finiteness, i.e. they are neither "finite" nor "infinite", and they do not show any functional variation with respect to morpho-syntactic categories like tense, aspect, and agreement. With the introduction of thematic verbs, the learner also introduces a semantic principle to organise the verb arguments: arguments that rank higher on a scale of agentivity precede those that rank lower (e.g. agent < theme/patient), and the most agentive argument is assigned the subject role.<sup>2</sup> The learners strictly observe an agent-subject-coalition. The position of the verb is determined by a "phrasal principle" according to which the "subject"-NP precedes the verb and the "object" complements follow it.

iii) *Post-basic learner variety*: In the acquisition of German, morphologically finite verb forms are differentiated from morphologically infinite verb forms. Finiteness is first marked on auxiliaries and modals (post-basic learner variety I), then also on lexical verbs (post-basic learner variety II). The structure of the utterance is characterised by a separation of the finite and the infinite verb component. Semantic and pragmatic constraints are still operative.

Klein and Perdue (1992) conclude that learners move from a "nominal utterance organisation" (predominance of nouns and absence of verbs) via a "non-finite utterance organisation" to a "finite utterance organisation". I assume that the organisational principles worked out by Klein and Perdue, together with semantic knowledge about negation and finiteness, constitute the learner's knowledge base for the placement of the negator.

The remainder of this paper is organised as follows: Section 2 situates the present study with respect to other research on L2 acquisition of negation. Section 3 provides a theoretical overview and explains the application of the concepts "negation" and "finiteness". Section 4 provides a contrastive description of negation in Italian and German, restricted to the points relevant to the data. Section 5 gives a brief description of the database. Section 6 presents a description of the development process for negation, followed by a summary discussion of the results.

## 2. Research on L2 acquisition of negation

Already in the late seventies and early eighties, negation constituted a major topic of interest for a number of second language acquisition studies (Cancino, Rosansky, and Schumann 1978; Felix 1982, Hyltenstamm 1977; Stauble 1984;

Wode 1981; see also the summaries in Klein 1984 and Meisel 1997). These studies came to the common conclusion that there is a fixed order of acquisition. For example, Stauble (1984), after studying Spanish and Japanese learners of English, proposed an acquisition continuum ranging from "basilang", the variety most distant from the target language, via "mesolang", an intermediate learner variety, to "acrolang", the variety nearest to the target language norm.<sup>3</sup> Stauble found that the acquisition sequence (see example 1) is very similar for Spanish and Japanese learners, despite the fact that their first languages differ in placement of the negator (in Spanish the negator precedes the verb, whereas in Japanese it follows it):

- (1) basilang: *no* + V  
*no* + phrase (e.g. *no in Columbia*)  
*don't* (rote form) + V
- mesolang: *don't/doesn't* (rote forms) + V  
 copula/auxiliary + NEG  
*no/not* + phrase
- acrolang: development of the target language system:  
 NEG follows the finite element

According to Klein (1984) the acquisitional sequences observed in all the earlier studies can be given a uniform interpretation if the acquisition of the finiteness of the verb is taken into account. Klein shows that in order to understand the developmental process one has to distinguish between the finite (FIN) and the infinite verb component (INF) whereby the verb base, the carrier of the lexical content of the verb, belongs to INF. In the target languages included in the studies (English, German, Swedish) the negator is placed in "pre-INF"-position. The learners acquire this rule via the following steps: a) In the earliest phase of acquisition verbs are not marked for finiteness. The negator is placed before the verb which is part of INF: NEG < V (e.g. *no say*). b) In the next phase learners start to distinguish between finite and infinite verb forms. This is easiest in cases where finiteness is encoded in an auxiliary (Aux) or a modal verb (MV), as the finite verb component (the finite auxiliary or modal) and the infinite verb component (the participle or infinitive form of a lexical verb) are clearly separated. The negator is placed before INF: Aux<sub>FIN</sub>/MV<sub>FIN</sub> < NEG < V<sub>INF</sub> (e.g. *do not say*). c) In the last phase, finite lexical verbs appear. For the acquisition of German this means that the lexical verb is raised and fuses with the finite component in order to yield the morphologically correct

verb form. The negator keeps its pre-infinite position out of which the verb has been shifted.  $V_{FIN} < NEG$  (e.g. *sagt nicht* 'says not'). The current study takes Klein's ideas as a starting point and builds upon them.

During the nineties, the acquisition of negation again became a major topic of interest, particularly within UG-oriented L2-acquisition research (cf. Eubank 1996; Schwartz and Sprouse 1996). This research contributed to the ongoing debate about the nature of the L2 "initial state", i.e. the starting point of non-native grammatical knowledge. The extreme "pro-transfer" position is taken in the "Full Transfer/Full Access" model of Schwartz and Sprouse, for which it is claimed "that the initial state of L2 acquisition is the final state of L1 acquisition" (Schwartz and Sprouse 1996: 41). This predicts that the position of the negator varies with the L1 background of the learners. The earlier studies on negation, however, showed a uniform cross-linguistic path of acquisition.

Meisel (1997) contrasts the acquisition of the syntax of negation in first and second language acquisition. While the L1 data show a "rapid, uniform and almost error-free course of development", which Meisel attributes to UG-knowledge, L2 acquisition "is characterised by considerable variability ... across learners and even within individuals" (Meisel 1997: 227). A major difference between the two types of acquisition concerns the role of finiteness. Contrary to L1 acquisition, the emergence of the finite/infinite distinction in L2 development is not linked to the target-like placement of the negator.

Parodi's (1998) study of the acquisition of functional categories in bilingual first language acquisition and in second language acquisition of German contradicts the conclusions of Meisel (1997). In her analysis of the development of INFL/AGR Parodi observes a high correlation between the marking of subject-verb-agreement and verb movement to the TL-adequate position in both types of language acquisition. The position of the negator is considered as a test case for the identification of verb movement: preverbal negation is dominant with non-agreeing verbs, postverbal negation is dominant with finite verbs. A further result of Parodi's analysis - which is in agreement with the findings of Klein (1984) - concerns the type of verb on which AGR is realised: in second language acquisition finiteness is initially only marked on a subclass of verbs, non-thematic verbs (auxiliaries, modals), while lexical verbs carry only lexical information. According to Parodi this "division of labour" exists neither in the L1 (Spanish/ Italian) nor in the L2 of the second language learners but it is an option offered by UG.

As this overview of current research has shown, research on the acquisition of negation in L2 has been largely syntactically orientated. The present study, however, does not focus on the syntactic knowledge that shapes the acquisi-

tion process, but on the semantic knowledge about negation and the category of "finiteness". The aim is to show the essential contribution of knowledge about semantic structure to the development of syntactic structure.

This approach has consequences for the choice of the data base: it is necessary to include the earliest stages of acquisition that are left out of consideration in the majority of generative studies. The current study also makes the following two assumptions:

- Negation is a semantic category. The negator operates over an utterance having both a semantic structure and an information structure.
- There is also a semantic category of finiteness. The development of negation is linked to the development of the expression of semantic finiteness.

### 3. Theoretical framework: negation and finiteness

#### 3.1. Finiteness and the FIN-INF-distinction

The discussion on finiteness in the acquisition literature has largely focussed on the acquisition of finite verb forms, i.e. on inflectional morphology and verb movement. Not all languages, however, use morpho-syntactic devices to mark finiteness. A well-known example is Chinese, which expresses finiteness by particles and adverbs. It is therefore necessary to make a distinction between "morphological finiteness", "syntactic finiteness" and "semantic finiteness" (Lasser 1997). Morphological finiteness is a property of verbs, whereas semantic finiteness is a property of utterances.

Following Klein (1998), semantic finiteness is a composite notion. It is linked to two semantic properties of an utterance, namely its temporal anchoring and its illocutionary function. Broadly speaking, an utterance is semantically finite when a state of affairs is stated to hold for some time interval (declarative force), or when it is questioned which of a set of a state of affairs holds for some time interval (interrogative force), or when it is required from the addressee to bring about a state of affairs at some time interval (imperative force). According to Klein (1998), semantic finiteness is realised in the semantic representation of an utterance by the presence of the abstract operator FIN.<sup>4</sup> This operator contains (at least) two positions, one for sentential force and one for the relevant time interval. Sentential force is indicated by AST (assertion) and the relevant time span by TT (topic time): FIN [AST, TT]. Given an utterance like *Mary bought salt*, AST indicates the (type of) assertion (e.g. the declaration: 'Mary buy salt') and TT indicates the time interval for which the described situation is asserted (here, at some time in the past before the utter-

ance).<sup>5</sup> In this example, FIN is also morphologically marked on the finite verb *bought*.<sup>6</sup>

Klein (1994, 1998) actually makes a clear distinction between the finite component of an utterance, represented by FIN [AST, TT], and its lexical content, represented by INF. INF minimally consists of the verb and its arguments. In Klein's account FIN operates on INF: FIN [TT, AST] (INF). For the Mary-example, this results in a structure like the following:

- (2) *Mary bought salt.*  
FIN [AST, TT] (INF [BUY(MARY, SALT)])

The INF-component has a focus-background structure, which differentiates between a set of alternatives on the one hand, and one element of this set on the other hand (cf. Rooth 1985; Klein and von Stechow 1982). For any given utterance of the discourse, a certain set of alternatives is under consideration. The clearest evidence of this are explicit questions, e.g. *What did Mary do?* In an answer like *Mary bought salt*, the background (*Mary x*) restricts the alternatives. The focus specifies one element out of a contextually given set of activities, e.g. {buy salt, call a friend, go to the cinema}, i.e. the focus represents the particular element of the set for which *Mary x* holds. Natural languages have a number of devices to mark the focus, e.g. intonational prominence (important in German), particles or specific syntactic constructions like clefts.

Typically, the background component serves to indicate the entity talked about and the spatial and temporal location of the situation denoted by the utterance. In Klein's (1999) terminology, the background contains an entity-parameter, a time-parameter, a space-parameter and a world-parameter. Their instantiation can be either contextually derived or explicit. Temporal information with background status is often given with temporal adverbials, which (in combination with the tense marking on the verb) further specify or restrict the TT.

In order to grasp the semantic effect of FIN operating over INF, the background-focus-articulation of INF has to be taken into account. FIN has scope over the focus component of INF. This results in a semantic interpretation which concerns the validity of the focus-background-relation at a given topic time. Given an utterance with declarative force, the focus is claimed to satisfy (the variable in) the background at the topic time in question.

### 3.2. Finiteness in learner languages

There is general agreement that morphological finiteness is absent in early adult learner languages, as far as thematic verbs are concerned, at least (Clahsen 1988; Köpcke 1987; Klein and Perdue 1992; Parodi 1998). Verbal inflection on thematic verbs appears only at a post-basic level of acquisition, and the acquisition process is slow. But even the most basic learner varieties are semantically finite, both with respect to the temporal anchoring of the utterance and with respect to its sentential force:

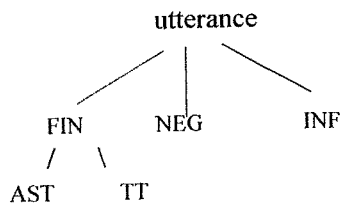
- i) The linking of INF to a topic time is expressed by adverbials and by the observation of discourse-related principles like the "principle of natural order" (see the detailed analyses in Dietrich, Klein, and Noyau 1995).
- ii) In fully-fledged varieties of German, as in English, an illocutionary function is characteristically associated with certain morphological and syntactic devices. It is, however, a well known fact that the sentence form does not unambiguously indicate the illocutionary intention. For example, in the right context a sentence with declarative form like *I need your passport* has an imperative function (Lasser 1997: Chapter 2). Generally, a sentence form has an "illocutionary potential", and only intonation and other prosodic cues, together with the context, allow for disambiguation. In early learner language there is neither word order variation nor inflectional morphology on thematic verbs, so that sentence form per se cannot serve as an indicator of illocutionary function. An utterance like *du komme* 'you come' can be used with declarative, interrogative and imperative function. The learners can, however, rely on intonational, prosodic and contextual cues that are also indispensable in fully-fledged varieties.

### 3.3. Negation

#### 3.3.1. The meaning of negation

Syntactic negation is understood as an operation on sentence meaning. In the framework developed above this means that it is an operation on (structured) INF. In the semantic representation of a negated utterance there is an operator NEG that has scope over INF or parts of INF.

(3)



When NEG is applied to INF, it transforms the meaning represented by INF into its opposite meaning (Jacobs 1991). How “opposite” has to be understood, is a theoretical question that has different answers depending on the theory of negation adopted. In propositional logic, for example, NEG (‘\_’) simply reverses the truth value of a proposition. Negation in natural languages, however, is a very complex phenomenon that can affect the content of an utterance in a number of ways. At least three essential factors have to be taken into account: the scope of negation, the focus-background articulation of the utterance, and the type of negation.

When a sentence contains a negator and a further scope-inducing element, the second element can be inside or outside the *scope of negation*. Well-known examples are quantified NPs:

- (4) *All students don't like syntax.*  
 (5) *Some students don't like syntax.*

Sentence 4) is ambiguous with respect to the scope of negation. It can have two readings: a) “it is not the case that all the students don't like syntax” (wide scope), or b) “it holds for all students that they don't like syntax”, which is equivalent to “no student likes syntax” (narrow scope). Sentence 5), on the contrary, can only have a narrow scope reading. Its meaning can only be paraphrased by “it holds for some students that they don't like syntax”.

The following utterances differ with respect to *focus-background articulation*, i.e. there are different alternatives under discussion:

- (6) *Mary ist nicht [zum Treffen gekommen]<sub>focus</sub>*  
 Mary did not to the meeting come  
 ‘Mary didn't come to the meeting’
- (7) *Nicht [Mary]<sub>focus</sub> ist zum Treffen gekommen.*  
 not Mary did to the meeting come  
 ‘Mary didn't come to the meeting’

In 6) the alternatives concern the activities that Mary performed and in 7) the people who came to the meeting. The focus specifies one element out of a contextually given set of people (ex. 7) or activities (ex. 6). The meaning of INF results from the combination of the focussed element with the non-focussed part of the utterance, the background. Negation can be understood to affect the validity of the focus-background relation: for the alternatives under consideration, it is not the focus that satisfies the background. There is a further difference between the two utterances that also concerns the structure of discourse: the utterance in 7) requires a rectification (e.g. “It was not Mary who came to the meeting but Sue”), while the utterance in 6) does not. This point will be taken up again below.

There are *types of negation* where the negator can be understood as a semantic operator, but there are also types of negation where it cannot. This non-truth-functional, non-logical use of negation has been extensively discussed by Horn (1985, 1989) and can be illustrated by some of his examples:

- (8) *I'm not his daughter – he's my father!*  
 (9) *The bottle isn't half empty, you pessimist, it's half full!*  
 (10) *We didn't engage in sexual intercourse, we made love!*

Taken literally, these utterances are contradictory. Horn describes this use as “metalinguistic” in character. Metalinguistic negation cannot be understood as the semantic denial of a previously uttered sentence, but as a device for rejecting an utterance as unassertable “on any grounds whatever”, e.g. because of its formulation, its style or register, its pronunciation etc. Thus, it is a pragmatic phenomenon.

The three factors described above affect the way negation is integrated into the utterance. They affect the interplay of intonation, the placement of the negator and, in certain cases, the whole construction of the utterance, e.g. when a rectification is required.

### 3.3.2. Types of negated utterances relevant for the current study

There are four types of negated utterances relevant for the learner data in this study. They differ with respect to information structure and, relatedly, with respect to scope properties of the negator or the type of negation.

- i) Negated utterances with a focus-background articulation of INF  
 This type of negated utterance is generally called “sentence negation”. In the

simplest case, the subject represents the background component, and the verb phrase the focus component:

- (11) *Mary came.*  
*Mary didn't come.*

Horn (1989) considers sentential negation as a "mode of predication": the negation expresses that the predicate fails to hold for the subject (assuming that the subject term refers successfully). The meaning of the affirmative and the negative sentences are in a contradictory relation. If the affirmative sentence is true, the negated one is false and vice versa.

Moser (1992) extends Horn's approach in that she treats negation as a relation between background and focus, an idea rooted in Jackendoff's (1972) account of the association of negation with focus. The background can be represented as an open proposition (Prince 1986) formed by replacing the focus component with a variable.

- (12) *Mary came*<sub>focus</sub>  
open proposition: Mary x

For Moser NEG is a two-place operator with the arguments "background" and "focus". Negation expresses that the focus does not satisfy the variable in the background. For the example *Mary didn't come*, the negation expresses that (the denotation of) *come* is not amongst the set of activities that Mary performed.<sup>7</sup>

#### ii) Negated utterances with backgrounded INF

The following type of negated utterance, which I will also call "negative assertion", differs from standard negation with respect to focus-background articulation:

- (13) Question: *Have you seen Mary, yes or no?*  
Negation: *No, I have not seen her.*  
Affirmation: *I have seen her.*

In both the negative and the positive answer, the whole INF-component is backgrounded. The only alternative under debate is whether INF is affirmed or negated. This is reflected in the use of contrastive intonation: in the positive case, the accent is on the finite verb component; in the negated case it is on the negator. According to Klein (1998), the central function of the finite verb is to

be the carrier of AST. So AST (the claim that INF holds at the given time interval) is focussed in the affirmative case, whereas NEG (the assertion that the proposition does not hold at the time span in question) is focussed in the negated case. A related case is seen in interpretation and intonation of counter-assertions (see Klein 1998):

- (14) *I am sure that the book was on the table.*  
*That's wrong, the book was not on the table.*

*I am sure that the book was not on the table.*  
*That's wrong, the book was on the table.*

In the affirmative case, it is again the finite element that is highlighted by contrastive intonation, whereas in the negative sentence it is the negator. From a "logical" point of view, negative assertions do not differ from sentence negations: in both, affirmation and negation are in a contradictory relation. But any semantic account of negation must nonetheless account for their differing focus-background articulations.

#### iii) Negated utterances with replacing negation

"Replacing negation" (RN) requires the "replacement" of the negated constituent.<sup>8</sup> In German, the replacement is expressed by a "*sondern*"-phrase<sup>9</sup> or an equivalent:

- (15) *Nicht Maria kam, sondern Anna.*  
not Maria came but Anna

The added phrase functions as a rectification or correction of the negated constituent and thereby specifies the scope of negation. While non-replacing negation (NRN) only excludes an element from the set of alternatives, replacing negation also indicates which alternative is claimed to hold. The replaced constituent has to carry a focus accent. Replacing negation differs logically from non-replacing negation in that, while the affirmative sentence (e.g. *Maria kam*) and the sentence with replacing negation (*Nicht Maria kam, sondern Anna*) still cannot both be true, they *can* both be false. The focus of negation can be "narrow"; in fact, replacing negation can affect *any* constituent that is "focusable", i.e. that can be related to a set of alternatives.<sup>10</sup> In German (as in many other languages) the syntax of RN is very different from that of NRN. The negator in RN tends to directly precede the constituent to be replaced and can therefore occur in positions not acceptable in NRN, as exemplified by the

sentence-initial position in example 15).

A special type of replacing negation occurs with metalinguistic negation (see examples 8 - 10).<sup>11</sup> As already noted, metalinguistic negation does not relate to the contents of INF, but to the way it is expressed. For example, for 8) *I'm not his daughter – he's my father*, the negated constituent (*I'm his daughter*) can be understood to be the complement of an understood negated *verbum dicendi* like *you should not say that x or I would not say that x*. In learner languages, metalinguistic negation can also be found in self-corrections of a particular lexical item or syntactic construction.

#### iv) Negated utterances with I-topicalisation

The last type of negated utterance has a special information structure, which Jacobs (1997) calls "I-topicalisation" where the "I" refers to the role of intonation:

(16) *Hast du deine Freunde getroffen?*  
did you your friends meet?

a) */Anna habe ich nicht getroffen,*  
Anna have I not met  
(aber die anderen schon).  
(but the others yes)

b) *Meine /Freunde habe ich nicht getroffen,*  
my friends have I not met  
(aber meinen Ex-Mann).  
(but my ex-husband).

Sentences with I-topicalisation contain two intonationally marked positions, one in the forefield (i.e. before the verb) and one in the middle field. The first position carries a rising pitch accent ("/'"), the latter a falling one ("\\"), resulting in the intonation contour termed "bridge accent" by Büring (1995). The constituent marked by the falling accent corresponds to the focus, the one carrying the rising intonation is the I-topic. The I-topic is understood to be an (improper) part of the background (Büring 1995).

Büring (1995) conducted an extensive analysis of the pragmatic effect of I-topics. It can be illustrated with the question-answer sequences in example 16a) and 16b). In ex. 16a) the answer is interpreted as incomplete with respect to the question. There is a mismatch between the set of alternatives raised by the question and the alternative settled by the answer. The question asks for a set of friends and the speaker answers about one of them ("partial topic"), i.e.

the answer is not exhaustive. Due to the rising accent on the deviating part of the answer, however, the sequence does not violate the rules of discourse. The speaker indicates that part of the question is left open. The answer in ex. 16b) constitutes a literal answer to the question and is as such fully adequate. The I-topic contour evokes the interpretation that an issue alternative to the one raised in the question is more relevant in the given context and that the intonationally marked constituent should be replaced ("implicational topic").

Büring explains the effect of I-topics by the assumption that I-topics "induce alternatives, in a way similar to the Focus" (1995: 57). Thus, a sentence containing an I-topic not only has a focus value, but also a topic value that is understood to be a "typed up" focus value, i.e. a set of / sets of propositions.<sup>12</sup> An I-topic implicates the existence of a "residual topic", i.e. an alternative that remains disputable. This is why sentences containing an I-topic often call for a continuation introduced by *but*. The two utterances are in a relation of contrast.

Büring's account can also deal with the phenomenon of scope inversion. A sentence like *Alle Politiker sind nicht korrupt* 'all politicians are not corrupt' allows, in principle, two scope options:  $\forall \neg$  and  $\emptyset$ . With the intonation contour */Alle Politiker sind nicht\ korrupt*, however, only the second reading is available; thus the interpretation that 'no politician is corrupt' is excluded. This follows automatically, if one accepts that the I-topic accent indicates topic alternatives, for only wide-scope negation raises alternatives (not all are corrupt, but some/most/several etc. are).

Summarising, the following negated constructions will be taken into account:

- Negated utterances with a focus-background articulation of INF
- Negated utterances with backgrounded INF (and focussed negation) (negative assertion)
- Negated utterances with replacing negation
- Negated utterances with I-topics

## 4. Negation in Italian and German

This section provides a brief contrastive account of negation in Italian and German. Only the placement rules relevant for the data are discussed.

### a) Sentence negation

Italian and German differ in the placement of the negator in standard sentence

negation. In Italian, the negator *non* directly precedes the finite verb (or a clitic pronoun that belongs to the verb) (ex. 17a, 18a, 19a). In German, the general rule is that the negator *nicht* precedes the infinite verb (or predicative complement). However, word order rules, verb raising, and adjacency rules complicate placement of the German negator, as we shall see below.

German is a verb-second language: in declarative main clauses, the finite verb occurs in the second position and the infinite verb occurs clause-finally (ex. 17b); in subordinate clauses, both the finite and the infinite verb occur clause-finally, in the order  $V_{INF} < V_{FIN}$  (ex. 17c). In both kinds of clauses the negator *nicht* is in pre-infinite position. When the sentence does not contain an auxiliary, the lexical verb is raised over the negator to the V2-position (ex. 18b). In predicative constructions, the negator occurs to the left of the predicative complement (ex. 19b, c).

Italian	German
17a) Ieri non ho mangiato yesterday not have <sub>1Psg.Pres</sub> eaten	17b) Gestern habe ich nicht gegessen. yesterday have I not eaten  17c) dass ich gestern nicht gegessen habe that I yesterday not eaten have
18a) Non mi piace. not me pleases	18b) Es gefällt mir nicht. it pleases me not
19a) I ragazzi non sono the boys not are	19b) Die Jungen sind nicht müde the boys are not tired  19c) dass die Jungen nicht müde sind that the boys not tired are

The German negator *nicht* obeys two adjacency constraints: a) Definite NPs, proper names and pro-NPs cannot follow *nicht* and are moved out of its scope (20b). b) The negator *nicht* cannot precede an indefinite NP. Indefinite terms are negated “cohesively”; for example, negation + the indefinite article *ein* is

realised as *kein* (21b):

20a) Non ho visto il libro. not have <sub>1.P.Sg.Pres.</sub> seen the book	20b) Ich habe das Buch nicht gesehen. I have the book not seen
21a) Non ho un capotto. not have <sub>1.P.Sg.Pres.</sub> a coat	21b) Ich habe keinen Mantel. I have not-a coat

German sentence negation typically precedes all PPs (both complements and adjuncts) and other adverbials:

- (22) *dass du das Buch nicht aufden Tisch gelegt hast.*  
that you the book not on the table laid have
- (23) *dass ich nicht schnell gelaufen bin.*  
that I not quickly run have

#### b) Replacing negation

In Italian the alternatives to a preverbal placement of the negator are quite restricted, even for replacing negation. *Non* cannot precede a preverbal subject (\**Non io l'ho visto* ‘not I it have seen’). However, the focussed subject can be postposed, or it can be marked by a sort of cleft construction using *essere a + infinitive*, as illustrated by examples 24) and 25) (from Schwarze 1995: 360):

- (24) *Non l'ho fatto io.*  
not it have<sub>1.P.Sg.Pres</sub> done me
- (25) *Non sono stato io a dirglielo.*  
not have been me to tell-them-it

If the focussed constituent is a verb complement, *non* can occur directly before it, as in example 26 (from Renzi and Salvi 1991: 251):

- (26) *Ci è andata non con Maria.*  
there is gone not with Maria



*ci è andata con Gianna.*  
there is gone with Gianna

However, according to Schwarze (1995: Section 6.2.2.), it is actually more common to leave the negator before the finite verb (the same position as in standard sentence negation) and indicate focus solely by intonation.

In German, the situation is quite different. Word order rules for replacing negation differ markedly from those of standard sentence negation.<sup>13</sup> As a rule, the negator precedes the focus as closely as possible. As all positions in a sentence can contain a focussed constituent, the negator can practically “move through” a sentence:

(27a) *Nicht der Student hat das Buch gelesen,*  
not the student has the book read  
*sondern der Professor.*  
but the professor

(b) *Der Student hat nicht das Buch gelesen,*  
the student has not the book read  
*sondern den Aufsatz.*  
but the paper

(c) *Der Student hat nicht ein Buch gelesen, sondern zwei.*  
the student has not one book read but two

(d) *Der Student hat das Buch nicht gelesen,*  
the student has the book not read  
*sondern ausgeliehen.*  
but loaned

As the examples above show, the negator *nicht* can occur: in the “forefield”, i.e. the position preceding the finite verb (27a), directly before a definite NP (27b), and directly before an indefinite NP (27c), i.e. in positions excluded with non-replacing negation.

c) To my knowledge, there is no phenomenon in Italian corresponding to I-topicalisation in German. (The relevant details and examples of I-topicalisation in German are presented above in section 3.3.2. iv.)

#### d) Multiple negation

Sentential negation in Italian can be expressed by more than one negative constituent, e.g. *non risponde nessuno* (not responds nobody = ‘nobody responds’). Italian also shows negative concord, so that multiple negatives can be used without cancelling each other out, e.g. *nessuno legge niente* (nobody reads nothing = ‘nobody reads anything’) (see Haegeman 1995). Both phenomena do not exist in standard German. As they relate to negative indefinites, which are beyond the scope of this paper, they will not be discussed any further.

### 5. The Database

The analysis that will be presented in Section 6 is based on longitudinal data from three Italian learners of German: Angelina (An), Marcello (Mo) and Tino (Ti). The data stem from the database of the ESF (European Science Foundation) project *Second language acquisition by adult immigrants*.<sup>14</sup> The data were gathered in monthly recordings over a period of about two and a half years. The data collection methods comprised, among others, free conversations, film retellings and picture descriptions. They were ordered into three data collection “cycles” of about ten months duration.

When the data collection period started, the three learners were in their early twenties. They emigrated from Southern Italy. None of them received any formal tuition in German. At the beginning of the data collection, their length of stay in Germany was: Angelina - 14 months, Marcello - 9 months, Tino - 3 months. Angelina (An) was a housewife who had minimal contact with Germans, so her knowledge of German was rudimentary and her progress slow. Marcello (Mo) and Tino (Ti), who worked as waiters, started off at a low level, but made good progress, though Tino advanced at a faster pace and reached a higher level of proficiency. In order to supplement the data for the more advanced stage of acquisition, data from a fourth learner, Mario (Ma), is included. His socio-biographical background is similar to that of the other learners. Data collection for Mario began when he had been in Germany for one year, at which time he had already reached a post-basic level of acquisition.

There are about 150 examples of syntactic negation in Tino's data, and about eighty examples in the data of each of the other learners (not counting anaphoric negation and indefinite pronouns, which will not be dealt with). In the presentation below each example is accompanied by two letters identifying the learner and two figures identifying the cycle and the encounter (e.g. *An*

2.3: Angelina, third encounter of the second cycle; *In* stands for 'native speaker interlocutor').<sup>15</sup>

## 6. The course of development

In this section the development of negation will be shown and illustrated by learner examples. The presentation follows the three stages introduced in section 1: the pre-basic stage, the basic stage and the post-basic stage (subdivided into post-basic stage I and II). For each of the stages, I will first present the findings and then discuss the findings with respect to the guiding questions of the study.

### 6.1. Pre-basic learner variety

At the pre-basic level of acquisition, utterances are short, obligatory constituents are often omitted, and utterance interpretation is highly context-dependent. The lexicon is very limited; in particular, it does not contain verbs. The learners are not or are hardly able to perform complex verbal tasks on their own; they have to rely on scaffolding and lexical help on the part of the interlocutor. With An, code mixing is frequent (see the analysis of An's data in Klein and Perdue 1992:144ff).

#### 6.1.1. Types of negated utterances

Three types of negated utterances are attested in the pre-basic data: negated utterances with a focus-background articulation of INF, negative assertions with backgrounded INF, and negated utterances with I-topics. The learners use several negative expressions without differentiation (see Dietrich and Grommes 1998): *nein* (target language: anaphoric negation), *nee* (target language: colloquial variant of anaphoric negation), *nix* (target language: colloquial variant of the indefinite pronoun *nichts* 'nothing'), *kein* (target language: negative quantifier or negation + indefinite article), *nicht* (target language: sentence negator).

i) Negated utterances with focus-background articulation of INF  
Negated utterances with focus-background articulation of INF are the most common type of negated utterance. INF is structured into focus and back-

ground. Typically, however, the background is not realised. The negator precedes the focus. Both the negator and the focus receive an accent:

(28) [Context: the informant talks about the village G. where she lives, and the lack of facilities such as public transport]

*nix* *gut* An 1.1.  
no good  
'G. is not a good place to live in'

29) [Context: same as above]

*nix bus* An 1.1.  
no bus  
'there is no bus'

ii) Negative assertions

The early use of negative assertions is exemplified by the following examples:

(30) In: [*haben sie*] *andere Kinder?*  
[do you have] other children

An: *nee, nee, nix andere kind* An 1.1.  
no no no other child(ren)  
'I don't have other children'

(31) [Context: Job interview; several remarks by the interviewer reveal his assumption that An has school-aged children; she corrects this misconception]

*nee, mein kind nix in schul* An 1.5.  
no my child not in school  
'my child does not go to school'

In both cases, the alternative under debate is whether or not a certain situation obtains, i.e. whether INF is to be affirmed or negated. In example 30) the alternative is established by a yes-no question: is it the case or is it not the case that you have another child. The second example is a type of counter-assertion to the interlocutor's implicit assumption that the learner's children are of school age. In both of the above examples the whole INF-component has background status. Only the negation is focussed, marked by the intonational prominence of the negator. INF is only partially verbalised: neither utterance contains a verb and in 30) the "topic entity" is left implicit.

### iii) Negated utterances with I-topics

The presence of I-topics at this pre-basic level shows that the learners have a very early awareness of information structure:

(32) In: *Haben sie kein auto?*  
don't you have a car

An: *mein mann habe de auto; ich nix* An 1.1.  
my husband has the car I not

The learner answers the question in two moves. The first part of the answer (*mein mann habe de auto* 'my husband has the car') is contextually inadequate because the alternative raised by the question (whether she does not or does have a car) is disregarded. Thus, the original question remains open and a follow-up is required. This occurs in the second move, which shows a bridge accent. Due to the intonation, the expression *ich* 'I' is interpreted as an I-topic and topic-alternatives are induced. In the given context, the I-topic is understood as being in a relation of contrast with the topic-alternative *my husband*. The question is affirmed for the topic-alternative *my husband*, whereas it is negated for the I-topic.

#### 6.1.2. Integration of negation into a pre-basic utterance structure

According to Klein and Perdue (1992), the central principle of utterance organisation in the pre-basic variety is: background < focus. The question remains whether the placement of the negator takes this linearisation principle into account.

Let us first consider negated utterances with a focus-background-articulation of INF. Because the constituents with background status are left implicit, the position of the negator with respect to these constituents cannot be unambiguously derived from the surface order of elements. There are two possibilities: a) the learner places the negator before all the elements denoting the INF-component or b) the learner places the negator before those elements of INF that belong to the focus, leaving an empty "background" position at the left periphery of the utterance. In the latter case, one would get the following structure (the square brackets indicate constituents that are not verbalised):

(33) [background-constituents]            negator            focus-constituents

But before one can decide which of the two possibilities is the more plausible, one must also consider the other two types of utterances produced.

The second type of utterance is characterised by an INF component with background status and a focal negator. The order of elements cannot be reconciled with the background < focus principle because the negator clearly precedes background constituents or at least part of them. As example 31) shows, the negator can actually occupy a middle position, with part of the background preceding it and another part following it. In order to capture this, one has to assume a more fine-grained articulation of the information structure. The first position is occupied by the NP *mein kind* 'my child(ren)', which instantiates the "entity parameter" of the background. The rest of the background information is placed after the negator. In Klein's (1999) terminology the initial NP denotes the "topic-entity".

Vallduví (1992) developed a model of information structure with a tripartite articulation. Besides the focus-background articulation, there is a further differentiation of the background into "topic-link" and "topic-tail". His model was designed to account for the structures of fully-fledged languages and is not always appropriate for simple learner languages. However, the function of the learners' "topic-entity" seems to correspond very closely to the function of the proposed "topic-link". In the languages studied by Vallduví, the topic-link appears in the sentence-initial position. It is understood as an "address pointer", directing hearers to the given address in their knowledge store where the information expressed by the sentence is entered (Vallduví 1992: 47). This information can be understood as being "about" the denoted entity.

In pre-basic learner varieties, the topic-entity is typically left implicit when it can be derived from the context. If it has to be specified, it is placed at the left periphery of the utterance. This would indicate that the utterance structure contains an initial position for the denotation of the topic-entity which would result in the following information structure:

(34) [background constituents/            focus            other background  
denotation of topic-entity]    negator    constituents

The third type of negated utterance in the data, utterances with I-topics, occurred only as answers to yes-no questions. Their information structure is therefore much like that of the second type of utterance. It differs only in the presence of the I-topic, which can be considered to be a special sort of topic-entity with topic alternatives. Only the I-topic and the negator are verbalised:

(35) background constituents:	focus	[other background
I-topic	negator	constituents]

So the following picture emerges. The utterance, rudimentary as it is, has a tripartite articulation. There is an initial position for the topic-entity, a middle position for the negator and a position at the right periphery into which information about the state of affairs to be denoted is placed. The topic-entity is usually left implicit, except when it is a member of a set of topic alternatives. In the standard case, constituents placed at the right periphery have focus status, i.e. the negator follows the background component of INF and precedes the focus component. This basic order is also maintained in the more marginal cases in which INF as whole constitutes background information. In this case, the denotation of the topic-entity is placed in sentence-initial position, the negator in the second position, and the (partial) denotation of the state of affairs in the third position.

#### 6.1.3. The learner's knowledge base

In the pre-basic variety, the placement of the negator can be explained by assuming two types of knowledge – pragmatic knowledge about information structure and semantic knowledge about the meaning of negation:

##### i) pragmatic knowledge

In the default case, INF has a focus-background structure. The mapping between information structure and surface structure is achieved via prosodic marking and two linearisation principles. The crucial linearisation principles are “background < focus” and, when INF as a whole has background status, “denotation of topic-entity < denotation of other background elements”. These principles obtain in both the source and the target language (though, in the target language, they interact with other constraints).

##### ii) semantic knowledge

In the abstract representation of an utterance, NEG is an operator over a structured INF, more specifically a two-place operator with the arguments focus and background. The negator expresses that the focus does not satisfy the background. The surface position of the negator reflects the relational character of NEG: it is placed between the (often implicit) background and the focus. One can assume the following simple placement principle: “negator < focus constituents”.<sup>16</sup> This basic rule has to be supplemented by a special principle for

the cases in which the negator is the only focal element: “denotation of topic-entity < negator < denotation of other background elements”.

#### 6.1.4. Assertion and negation

In the pre-basic variety, morphological marking of AST is generally impossible because the learner's lexicon still lacks lexical verbs, modals and auxiliaries. There are, however, in An's data a few occurrences of a form which corresponds to the target language copula. It has long been observed that such forms appear in very early varieties for some of norm-oriented learners like An.<sup>17</sup> The data of the first session with An can be regarded as representative of the pre-basic variety. An produced thirty utterances in German, 27 of which are verbless while three contain the inflected-like form *is*, a colloquial variant of *ist* ‘is’ (3.P.Sg.Pres. of *sein* ‘to be’). The form could have been used in at least three other cases, so its use is optional.

(36) *mein mann is in arbeits* An 1.1.  
my husband is in work

(37) *mein mann is \*geloso\** An 1.1.  
my husband is jealous

Can *is* be regarded as a finite form?<sup>18</sup> Indications are that the form does not carry any temporal information. An's data files contain only one example of a temporally contrasting form, *war* ‘was’ (3P.Sg.Past of *sein* ‘be’), which is produced at the end of the data collection period (in session 3.6, i.e. twenty months after the first occurrence of *is*); furthermore *is* is used in contexts which clearly require a past form.<sup>19</sup> An alternative account of its occurrence would be that the form is the carrier of AST, i.e. it realises (just) one of finite verb functions. This hypothesis gains in plausibility when one takes into account that the form has no lexical content, thus that its appearance can only be functionally motivated.

It is noteworthy that the form *is* only appears in affirmative utterances in An's pre-basic variety. Moreover, it occupies the same position as the negator: it is placed between the topic constituent and the focus constituent. This suggests that the learner recognises the semantic relationship between assertion and negation: both are operations over a structured INF. In an affirmative utterance it is asserted that the focus satisfies the background, whereas in a negated utterance it is asserted that the focus does not. Both semantic operations con-

cern the validity of INF during a given time interval. The surface order of elements reflects this relation in a straightforward way:

- |      |                         |  |                       |
|------|-------------------------|--|-----------------------|
| (38) | background constituents | carrier of assertion/<br>carrier of negation | focus<br>constituents |
|------|-------------------------|--|-----------------------|

## 6.2. The basic variety

While learners at the level of the pre-basic variety need constant scaffolding in order to take part in a conversation, learners at the level of the basic variety have developed an autonomous system. Its organisation is simple, but communicatively very effective. This probably accounts for its potential for fossilisation (see Klein and Perdue 1992, 1997). The structural and communicative advancement at the basic level derives primarily from the acquisition of thematic verbs and their argument structure. However, the verbs tend to appear in a base form, and the variants that surface (root, root + schwa, infinitive-form) are not functionally differentiated; thus there is not yet any systematic morphological marking of finiteness (see also Parodi 1998). Also, while all the examples presented below (in section 6.2.1) contain a verb in order to illustrate the learners' progress, verbless utterances still occur in the basic variety (see Klein and Perdue 1992).

### 6.2.1. Types of negated utterances

The basic variety sees an expansion of the types of negation utterances used. Use of the three types that appeared in the pre-basic variety is refined as verb structures emerge. In addition, a fourth type of negated utterance emerges: replacing negation. The expression *nein* (*nee*) is now adequately reserved for anaphoric negation but a consistent differentiation between the other expressions has not yet been established. Following are examples for each of the four negation types.

- i) Negated utterances with focus-background-articulation of INF  
The majority of the examples in the data belong to this group.

- (39) [context: An. tells about her experiences during the earthquake of November 1980]

*in de nacht nicht schlafen* An 3.1.  
at the night not sleep

- (40) [context: same as above]

*mein vater nicht schlafen* An 3.1.  
my father not sleep

- (41) [context: film retelling; An. describes a demonstration by unemployed workers]

*de persone in de strass nix ar-/ kein arbeite* An 1.5.  
the persons in the street no w- no work  
'the people marching in the street are unemployed'

- (42) *ich nich sprechen deutsch gut* An 3.5.

I not speak German well

- (43) [context: An explains that she does not have the time to watch television in the afternoon, because she has to look after the children and has to prepare dinner for her husband]

*wann halb fünf (...), nich glaube die lassie* An 3.5<sup>20</sup>  
when half five not (think of) the lassie  
'at half past four, I cannot think of watching *Lassie* on TV'

The above examples illustrate two acquisitional tendencies: the presence of a lexical verb and the lexical filling of the left periphery of the utterance. The left periphery is reserved for background information. It can contain the denotation of the "agent-topic entity" (ex. 40-42) and/or the spatio-temporal anchoring of the state of affairs denoted (ex. 39). The function of the background component now becomes salient: it restricts what is asserted to a time, a place and an entity.

The lexical verb introduces a verb-argument structure into INF. The verb (and its internal argument) receive focus status. Thus, there is a clear and consistent mapping between information structure and verb-argument structure. The most agentive verb argument is usually attributed with topic status, while the second argument is attributed with focus status. (Verbs with more than one internal argument are rare at the basic level.) Consistent with the tripartite structure adopted earlier, the topic argument tends to occur in the initial position, the negator in the middle, and the verb and the focus-argument in the

final or “focus” position (in the order verb < complement/internal argument). Thus, the negator precedes the focus component of INF. The exchange in example 44) below illustrates the resulting difference between the learner system and the target language system. The native-speaker interlocutor (In) signals the learner Ti that he does not understand what Ti just told him. Ti takes up In's utterance and repeats it to himself in a low voice. In the target language system, the negator follows the (focal) finite verb, while in the learner system the negator is placed before the focus represented by a verb unspecified for finiteness.

- (44) In: *(ich) versteh*<sub>1P. Sg. Pres.</sub> *nicht*  
 I don't understand  
 Ti: *nix verstehn*<sub>Ti 1.6.</sub>  
 not understand

The basic variety also sees the emergence of negated copula-constructions. The form *is* (standard German: *ist*, 3.P.Sg. Pres. of *sein* ‘to be’) is the earliest negated finite verb form attested in the data.<sup>21</sup> The verb form is finite insofar as it is understood to be the carrier of AST. The finite verb precedes the negator, which reflects the relative scope of AST and NEG: NEG is in the scope of AST.

- (45) *dies is nix gut*<sub>An 2.5.</sub>  
 this is not good

- (46) *deutschland is nich \*patria\**<sub>An 2.1.</sub>  
 Germany is not fatherland

Intonation is variable.<sup>22</sup> In example 39) and 41), only the verb carries an accent, whereas in example 40) both the verb and the negator are intonationally prominent with one or the other carrying the pitch accent. The same situation obtains in predicative constructions: in example 45) both the negator and the information focus are prominent, whereas in example 46) only the information focus is prominent. The tendency to phonetically highlight the negator, even in cases where it is not part of the information focus, carries on into the more advanced, i.e. post-basic stage of development.

## ii) Negative assertions

- (47) [Context: job interview; An explained that she did not work when she lived in

Italy. In's reaction shows that he did not understand her, so she clarifies the assertion:]

- Nix arbeite in ital*<sub>An 1.5.</sub>  
 no work in italy

If one compares this basic-variety negative assertion with a corresponding pre-basic one, the only difference is the integration of the verb. The (implicit) topic-entity precedes the negator, and the rest of the background information (a verb plus any complement or optional constituents) follows it.

## iii) Negated utterances with I-topics

This type of negated utterance remains structurally simple. As a rule it consists only of the I-topic constituent and a following negator, either *nein* ‘no’ or *nicht* ‘not’, both of which are acceptable in target language I-topic constructions. The bridge-accent contour is always prominent in this construction:

- (48) In: *Haben Sie eine Krankenversicherung jetzt?*  
 ‘Do you have insurance now?’  
 Mo: */jetzt nein\; vielleicht nächste woche*<sub>Mo 1.5.</sub>  
 now not maybe next week

- (49) In: *Reparieren Sie selbst Fahrrad oder Auto?*  
 ‘Do you yourself repair bicycles(s) or car(s)?’  
 Mo: *nein, /auto nein\, fahrrad ja*<sub>Mo 1.5.</sub>  
 no, car(s) no, bicycle(s) yes

## iv) Replacing negation

Replacing negation is first attested in the basic-variety acquisition data. It is easily identifiable by the correction of the negated constituent:

- (50) [Context: retelling of a Harold Lloyd film; the protagonist wants to get onto a train in a hurry; by mistake he does not take his suitcase, but a baby carrier standing beside it]  
*er bringen nein seine tasche, aber die kinder*<sub>Mo 1.3.</sub>  
 he bring no his bag but the child  
 ‘he does not take his bag, but the baby carrier’

- (51) [Context: retelling of a Harold Lloyd film; the protagonist erroneously does not get into the train but onto a horse-drawn cart]

*sie fahren nicht wagon, ja?sondern so (...)karre*<sub>Ti 1.3.</sub>  
 s/he go not train yes but so cart

(52) [Context: retelling of a Chaplin film; Chaplin is accused of having stolen a bread; a witness declares that the bread was not stolen by him but by a girl]

*das ist nicht er, aber die mädchen*<sub>Ti 1.7.</sub>  
 it is not he but the girl

In all these cases, the focus is narrow. It does not comprise the whole verb complex but only the complement of the verb (ex. 50, 51) or the predicative (ex. 52). The negator precedes the focus.

With predicative constructions this results in the same word order as with non-replacing negation: the negator is placed after the carrier of AST (*ist* 'is') and before the focus-constituent. The replacing character of the negation is indicated by the added rectification and by intonational prominence of both the negator and the focus.

When utterances contain verbs with complements, however, replacing and non-replacing negation differ in the placement of the negator. With replacing negation the negator appears immediately to the left of the focus (the verb complement). With non-replacing negation, on the contrary, the negator precedes the whole verb complex (compare ex. 42, 43 with ex. 50, 51).

As could be expected, replacement of the topic-argument is not attested in the data. There is one instructive example which illustrates an unsuccessful attempt:

(53) [Context: the learner describes a dangerous situation he encountered when driving in a car with a friend; he explains that it was his friend who was driving, not he himself]

*aber ich nich fahre/ nich <(fahre ich)>*,  
 but I not drive/ not (drive I),  
*ein mein freund*<sub>Mo 3.3.</sub>  
 a my friend <stuttering, very low voice>  
 'It wasn't me who was behind the wheel but a friend of mine'

The learner intends the replacing negation of *ich* 'I' and a rectification by *mein freund* 'my friend'. In standard German this could be achieved by the negation of the sentence-initial constituent: *nicht ich* 'not I'. Such a procedure is not compatible with the learner's system as it contradicts both a) the linearisation principle "background < focus" and b) the mapping between argument structure and information structure wherein the highest argument is assigned background status and cannot be focussed. In the above example, the learner tries

to move the constituent to be rectified out of the topic position but gives up half-way as is indicated by prosody.

## 6.2.2. Integration of negation into the basic-variety utterance structure

The development of verb argument structure has two consequences:

i) INF is enriched by thematic verbs and their arguments: INF [V, argument(s)]. When there are two arguments, the most agentive argument receives topic status. The verb and the other argument are assigned focus status. The surface order of elements is guided by the same linearisation principle, "background < focus", that was used in the pre-basic stage of acquisition. The position of the negator also remains unchanged: the negator precedes the focus. The surface order is thus determined by the following mapping of information structure to verb argument structure:



The learner language has been syntacticised and one can assume a VP with a right-peripheral complement: *vp*[V NP].

ii) The learner at the basic level is now in a position to begin working out the difference between replacing and non-replacing negation. The structure of the focus component can now contain two elements, so the learner can overtly mark narrow focus on the complement. The only replacing negation that emerges at this stage is *ir-fact* negation of the verb complement, indicated by the position of the negator immediately before the complement.

## 6.2.3. Assertion and negation

Predicative constructions are the first to surface with overt marking of morphological finiteness. The form *is(t)* is (at least) the carrier of AST, and its surface position reflects scope relations:

(54)	background constituents	carrier of assertion ( <i>ist</i> )	negator	focus constituent (predicative)
------	-------------------------	--	---------	------------------------------------

AST applies only to the focus component, and elements that precede the carrier of AST in the surface order are outside the scope of the AST operator. NEG is within the scope of AST, thus the negator follows the carrier of AST.

#### 6.2.4. The learners' knowledge base

The knowledge base of the basic variety has been enriched in two ways beyond that of the pre-basic variety: a) the learner has integrated lexical verbs with a thematic role grid and b) a morphologically finite form without lexical content (*ist*) which showed in An's data right from the beginning is now also attested in the data of Mo and Ti. Both processes are enabled by the growth of the lexicon. The newly acquired verb-argument structure is brought into line with the previously established information structure via a strictly observed mapping rule: background/topic-entity: agent argument, and focus: verb + complement/ internal argument. As in the pre-basic variety, the middle position in the tripartite structure is reserved for elements expressing the validity of the state of affairs denoted. Accordingly, the carrier of AST (*ist*) is placed there.

#### 6.3. The post-basic stage of acquisition

During the post-basic stage of acquisition the morpho-syntactic marking of finiteness is developed in two steps, "Post-basic variety I" (criterion: Aux-V-construction) and "Post-basic variety II" (criterion: finite lexical verbs). The expression of negation becomes richer in many respects: negation can be reinforced (e.g. *gar nicht*, *überhaupt nicht* 'not at all'), negative indefinites (e.g. *nichts*) and negated phase quantifiers (*nicht mehr* 'no more', *noch nicht* 'not yet') occur, and the negator can be combined with focus particles (*auch nicht* 'also not', *nicht nur* 'not only'). Furthermore, the differentiation between negation by means of *kein* and *nicht* is worked out. *Kein* is adequately used in the determiner position of generic or indefinite NPs.

#### 6.3.1. Post-basic learner variety I

The first level of the post-basic learner variety is characterised by the emergence of morpho-syntactic expressions of finiteness (beyond the form *ist*), in particular, in auxiliary+verb and modal+verb constructions.

##### 6.3.1.1. Negated utterances with focus-background-articulation of INF

Morphological marking of finiteness first appears on auxiliaries in Aux-V-constructions, i.e. in cases where the separation between FIN and INF is transparent. The correct formation of the participle form is achieved only gradually. The verb complement still tends to be omitted whenever it can be contextually inferred (cf. ex. 55):

(55) *er hat nicht <lese>* <sub>Ti 1.3.</sub>  
 he has not (read)

<*lese* which in standard German means 'read' is used in the sense of 'to see'>

(56) *in deutschland vielleicht ich habe nicht gesehe* <sub>Mo 2.1.</sub>  
 in Germany maybe I have not seen

(57) *ich habe nicht verstande* <sub>Ti 2.1.</sub>  
 I have not understood

(58) *er hat nicht die zug gesehen* <sub>Ti 2.3.</sub>  
 he has not the train seen

In comparison with the utterances unspecified for finiteness that predominated in the earlier varieties, the Aux+V constructions distinguish finiteness and infiniteness. The auxiliary appears in a morphologically finite form, and the lexical verb is also overtly marked for infiniteness, e.g. for the past participle, *ge-* is added to the verb stem. The finite auxiliary is the carrier of AST, temporal information and subject-verb agreement. The person and number marking on auxiliaries is generally correct (see also Parodi 1998: Chapter 4.4).

The overt marking of finite and infinite verb forms does not require modification of the principles that determine the surface order of elements. Lexical and functional information is encoded separately. Lexical information shows the usual background-focus articulation, and the elements that carry functional information are still placed in the middle position, between the background



constituents and the focus constituents. The negator keeps its position to the left of the focus constituents. Learners already established a position for the expression of AST when they began using *ist* 'is' in the basic stage, and the more general finite auxiliary is now placed there. The function of this position is extended, as the auxiliary overtly expresses at least two aspects of finiteness, namely assertion and topic time.

The second type of morphologically finite verbs used at this stage are the modal verbs in MV+V constructions. Like Aux+V structures, MV+V constructions allow for the separate expression of FIN and INF. Negated utterances with modals follow at a lag.<sup>23</sup> Ti's data contain occurrences of *müssen* 'must, have to', *können* 'can, be able to', and *wollen* 'want to'. I shall concentrate on the two "pure" modal verbs *müssen* and *können*.

The learner's usage of modals is consistent with options allowed in the target language. The modal verb *können* expresses the modal value "possibility" (POSS) and *müssen* "necessity" (NEC).

(59) *ich kann nich verkauf, weil...*<sub>Ti 2.1</sub>

I POSS not sell, because...

'I cannot work as a shop assistant, because...'

(60) [context: Mo tells about an argument with his boss in which he asked for holidays; the boss told him:]

*für moment du kannst nicht die ferien haben* <sub>Mo 3.5.</sub>  
for moment you POSS not the holidays get

(61) *die papa sage: du muss nich sehn* <sub>Ti 2.3.</sub>

the dad say: you NEC not look

'the father says: don't look (at these people)'

(62) [context: personal narrative; Ti got in a fight; when he started to attack his opponent, a friend held him back saying:]

*un [mein freund] sage: du muss nich so mache* <sub>Ti 2.7.</sub>  
and [my friend] say: you NEC not so make

Klein (1994: 173ff) assumes that the representation of the modal verb is part of INF. He considers it to be the highest verbal element of INF, which has scope over the VP. If this is true, a morpho-syntactic operation has to take place when the abstract semantic representation is mapped onto the surface representation: the topmost verb of INF, in the given case the modal verb, has to be

fused with FIN thus yielding the finite surface form of the modal. Klein (1994: 180f, 1998) calls this mechanism "FIN-INF-linking".<sup>24</sup> In addition, the lexical verb is overtly marked as infinite.

In the target language, the scope relations between the modal operator and the negator are ambiguous. Given an utterance like *du kannst nicht rauchen* 'you POSS not smoke' the relative scope of POSS and NEG can correspond to the surface order of modal verb and negator, POSS(NEG(INF)), or there can be scope inversion, NEG(POSS(INF)). The learner examples that contain *können* all exhibit a wide-scope-reading of the negator. The wide-scope reading is also dominant in the target language.<sup>25</sup>

By contrast, the learner examples with *müssen* all exhibit the narrow-scope reading of the negator. In the target language, negation of *müssen* allows both a wide- and a narrow-scope reading of the negator. An utterance like *du musst nicht so viel rauchen* 'you NEC not that much smoke' can be interpreted as "NEC (NEG (du soviel rauchen))" as well as "NEG (NEC (du soviel rauchen))". The wide-scope reading of the negator is often the preferred one. In the learner utterances, however, the scope of the negator was always narrow. For example, sentence 61) only has the reading 'it is necessary that the addressee not look at something', and sentence 62) only has the reading 'it is necessary that the addressee not act the way he does'. The question then is why this exceptional narrow-scope usage surfaces.

All of the learner's utterances with *müssen* share certain characteristics: a) the subject denotes the addressee, b) they represent reported speech, and c) they express a kind of instruction or command. This suggests that they do not have assertive, but imperative force. According to Klein (1994), the FIN component of imperatives can be represented as: FIN (OBLIGATION, TIME OF OBLIGATION). Klein (1994: 216) states that "... imperatives do not assert INF. They rather mark an instruction/order/wish, in brief an 'obligation'. ... FIN-time is the time for which the obligation is meant to hold". When *müssen* in the learner language is understood as the carrier of obligation and time of obligation, the narrow-scope usage has a natural explanation. The illocutionary force-operator always has scope over NEG. The expression of imperative force by means of *müssen* is semantically plausible because imperative utterances are modalised and involve necessity (Dietrich 1992; see also Ahrenholz 1998 for discussion of L2 use of *müssen* in instructions).<sup>26</sup>

### 6.3.1.2. Negative assertion

Negative assertions do not show any development except in the now TL-

adequate expression of negation by means of *kein*:

- (63) In: *Haben sie Kinder? (...)*  
'Do you have children'  
Ti: *keine kinder, keine frau* <sub>Ti 1.6.</sub>  
no children no wife

### 6.3.1.3. Negated utterances with I-topics

Negated utterances with I-topics do not show any structural changes. Only the I-topic is verbalised with the negator being placed to its right. This constitutes an effortless way of constructing a simple but pragmatically and syntactically acceptable utterance.

### 6.3.1.4. Replacing negation

Replacing negation is not attested in combination with the new structures, which is not surprising. At the level of the basic variety, the constituent to be replaced was the verb complement. But when utterances with auxiliaries or modals first appear, the verb complement is normally left implicit.

### 6.3.1.5. Integration of negation into the early post-basic utterance

The most striking feature of Post-basic variety I is the clear distinction between finite and infinite verb components. This is achieved via morpho-syntactic operations that result in a finite auxiliary or modal and an infinite lexical verb (participle or infinitive). These operations are brought into line with the already established tripartite surface structure in a straightforward way. The initial position, which is reserved for background information, is not affected. The (now infinite) lexical verb and its complement continue to have focus status and are placed in the third position, the "focus position".

Constituents carrying information about the operator FIN (the finite auxiliary/modal verb) and the negator are placed in the middle position, which was already used for *ist* and the negator in the earlier basic stage. The expression of FIN (the finite modal or auxiliary) precedes the negator. The surface order reflects the relative scope of FIN and NEG:

(64)	background constituents	carrier of FIN (= finite auxiliary/modal verb)	negator	focus constituents (infinite verb form plus complement)
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There is, however, another scope relation that cannot be directly reflected in the surface order. The modal verb is the carrier of both FIN and the modal operator. But, whereas FIN always has scope over NEG, the modal operator can have either broad or narrow scope with respect to NEG without changing the surface order. That means that due to the growing semantic and syntactic complexity of the learner system relative operator scope and the surface order of elements can diverge.

### 6.3.2. Post-basic learner variety II

The main advance for Post-basic learner variety II is the extension of the morpho-syntactic operation of FIN-INF linking to lexical verbs. The negator remains in the position it has occupied all along, namely preceding the denotation of the focus component.

#### 6.3.2.1. Negated utterances with focus-background-articulation of INF

FIN-INF-linking involving lexical verbs is first observed in utterances that were probably acquired as a unit: *ich weiss nicht* 'I do not know', *ich glaube nicht* 'I do not think', *ich versteh nicht* 'I do not understand' (see Parodi 1998 for a similar observation). But these forms are soon followed by structural change in the learner system, where this process is generalised: lexical verbs fuse with FIN while their dependent constituents (complements (ex. 65-67), separable prefixes (ex. 68), and modifiers of the verb (ex. 69-70)) are left behind in INF. Correspondingly, the surface position of the dependent constituents remains unchanged.

- (65) *ich sage nicht deine name* <sub>Ti 2.7</sub>  
I tell not your name  
'I will not mention your name (vis-a-vis a certain person)'

(66) *sie geben nicht die geld wie sie müssen geben*  
 they give not the money as they have to give  
 'they don't pay the people as they should do' Ti 3.6.

(67) *ich kenn kein freund das will allein bleiben* Ti 3.5.  
 I know no friend that want alone stay  
 'I don't know any friend who wants to live alone'

(68) *ich mache nicht auf* Ti 3.5  
 I make(=switch) not on  
 'I do not switch on the television'

(69) *ich weiss nicht mit \*precisione\** Ti 2.1.  
 I know not with precision  
 'I don't know exactly'

(70) *er arbeit nicht gut* Ti 2.6.  
 he work not well  
 'he is not a good worker'

In the negated sentences morphological marking of subject-verb agreement, which in German requires not only affixation but in many cases also root modification, is correct in the vast majority of cases. In Ti's data of cycle II the number of correct cases amounts to 24/26, in cycle III it amounts to 38/41. But the figures are misleading. A closer look at Ti's negated verb forms of cycle III, for example, reveals that in about two thirds of the correct cases the verb form could have been acquired as part of a formulaic expression (*ich weiss nicht* 'I don't know', *ich versteh nich* 'I don't understand', *gefällt mir nicht* 'don't like it', *das stimmt nicht* 'this is wrong', *das geht nicht* 'it doesn't work') and the rest group contains only seven different verbs. As was shown in Klein and Perdue (1992) the acquisition process of verbal paradigms is prolonged over many months or even years in adult language acquisition. (See also Parodi 1998) With Tino, for example, the first finite lexical verb form appears in session 1.3 (recorded in February 82); Ti's film retelling of session 3.6. (recorded in May 84) contains 44 lexical verb forms (22 different verb stems), only 15 of which show correct agreement marking. There is thus an extended transition phase in which correct and incorrect forms coexist, sometimes in almost successive utterances. For example, the following utterances occur in the same film-retelling only a few sentences apart:

(71) *sie sehe eine bäckerei* Ti 2.7.  
 she see a bakery

(72) *eine alte dame seht das* Ti 2.7.  
 an old lady sees this

The target language verb form for the 3.P.Sg.Pres. of *sehen* 'see' is *sieht*. The verb form in ex. 71 does not show any marking of the 3.P.Sg., whereas the form in ex. 72 is correctly affixed by *-t* (root modification is lacking).

In analyses of data from this level of acquisition one is confronted with the problem how to deal with forms like *sehe*: should it be regarded as a form unspecified for finiteness or as an ill-chosen finite form (*sehe* is the 1.P.Sg.Pres. verb form in German)?<sup>27</sup> Actually, both types of "error" may occur, and with affirmative utterances they can simply not be distinguished. In negated utterances, however, the position of the lexical verb relative to the negator can be taken as a clear indication of finiteness versus unspecifiedness of finiteness. When the verb is fused with FIN, it can be understood as the carrier of AST and TT. The learner can then differentiate formally between two temporal relations, namely the "time of utterance after topic time" (expressed by the particular auxiliary plus verb participle) and the "time of utterance included in topic time" (marked by an inflection of the verb form). In adult second language acquisition the morpho-syntactic marking of FIN and the morpho-syntactic marking of subject-verb agreement constitute separate learning tasks and are tackled successively.

In German, definite object complements are, as a rule, placed before the negator. The learners follow this rule with pronominal complements, in the rare cases that they are realised at all. However, in the vast majority of cases, anaphoric reference in object position is absent (see Klein and Perdue 1992),<sup>28</sup> and the few utterances in which it occurs may have been acquired as fixed formulas: *ich brauche das nicht* 'I need this not', *ich glaube das nicht* 'I believe this not', *das gefällt mir nicht* 'this pleases me not', *das interessier(t) mir nicht* 'it interests me not'. The nonpronominal complements (definite lexical NPs) in the data follow the negator, but there are too few examples to determine if this holds in general (ex. 65-66 above).

### 6.3.2.2. Topicalisation

There is another major syntactic development (besides verb shifting) during the Post-basic variety II, namely the emergence of topicalisation. By "topicali-

sation" I simply mean that a focussed object complement can be shifted into utterance-initial position.

(73) [context: Tino's daily routine; during breaks he often reads an Italian newspaper; he explains:]

*weil die deutsch zeitung ich kann nicht noch lesen Ti 3.5.*  
 because the German newspaper I can not yet read

(74) [context: the Americans Tino meets at the disco; he has trouble understanding Americans who do not speak any German after living in Germany for a few years]

*die amerikan ich versteh nicht weil sie*  
 the american I understand not because they  
*kommen auch hier für zwei drei vier jahren leben Ti 3.5.*  
 come also here for two three four years live

(75) [context: Tino is asked to retell the second part of a film to a person who only knows the first part; he is confused about which of the two parts he has to retell;]

*aber die zweite seite kennst du nicht Ti 3.6.*  
 but the second side(=part) know you not

As is apparent from the examples above, lexical components of the verb phrase are no longer restricted to the "focus position" at the end of the utterance. This change affects not just the lexical verb, but also the verb complements. A focussed object constituent can appear initially, a position that was strictly reserved for background information in earlier stages of acquisition.

Topicalisation allows the learner to overtly indicate certain aspects of information structure that had to be disregarded in the past. The first aspect concerns the status of referents evoked in the discourse. In the unmarked case, referents of the topic component have already been evoked in the discourse and are in the hearer's knowledge store, i.e. they are "discourse-old" and "hearer-old" in Prince's (1981, 1988) terminology, whereas referents of the focus component are "discourse-new" and "hearer-new". But the focus can also encode discourse-old and hearer-old discourse referents, and their oldness can now be marked by moving them to the first position, as in the topicalisation examples above. The learner thus gains new means to ensure textual cohesion.

A second aspect of information structure that topicalisation may highlight is the contrastive relation between the topicalised focus-constituent and some

other member of the set of alternatives that was already introduced (explicitly or implicitly) in the discourse, e.g. the Italian vs. the German newspaper, the first vs. the second part of the film, Americans vs. people from other countries. Topicalisation restricts the relevant alternatives to two elements: the topicalised one and the other(s). Furthermore, the negator is focussed in these structures, which raises alternatives of affirmation vs. negation. A combination of topicalisation and intonational prominence of the negator evokes a contrastive interpretation: one of the focus alternatives satisfies the background, while the other one (the topicalised one) does not. Use of this structure, therefore, shows a mastery of several aspects of the target language.

Although topicalisation differs markedly from I-topic-constructions, I-topics can be regarded as facilitating the acquisition of topicalisation: a) an I-topic induces alternatives in a topic position b) the alternatives can be in a relation of contrast c) the negator is focussed. These features are also characteristic of the topicalised focus-constituent.

Contrary to the target language rule, learners at this stage allow more than one constituent before the finite verb, e.g. the topicalised element and the backgrounded one. Ex. 75) is among the very few topicalised utterances in which the element with background status is placed after the verb, as required in the target language. Such inversions are restricted to a small number of verbs in combination with the pronoun *du* 'you 2.P.Sg.', e.g. *hast du* 'have you', *weisst du* 'know you', *kennst du* 'know you'. Presumably, these inversions were facilitated by the input frequency of corresponding verb-first questions addressed to the learner. Even if the inverted expressions are still unanalysed units, they can be regarded as indicators of an upcoming structural development.

### 6.3.2.3. Negative assertions

Negative assertions are not attested in the data of this stage.

### 6.3.2.4. Negated utterances with I-topic

This type of utterance is sparse. When it occurs, it is nearly always structurally simple (e.g. */jetzt nicht\ mehr* Ti 3.2. 'now not any more'). There is however, one exceptional example showing a combination of topicalisation and I-topic<sup>29</sup>:

- (76) *mit /viel italiener ich kann nicht\ sprechen* Ti 3.5.  
 with many italians I can not talk

The bridge-accent contour induces a wide-scope reading of the negator over the quantified NP and evokes the expectation of a contrastively added *but*-phrase.

### 6.3.2.5. Replacing negation

The use of replacing negation is restricted by two organisation principles: a) only elements of the VP can be focussed which excludes, for example, the replacing negation of the topic entity and b) the focussed constituent has to be in the “focus position” which means, for example, that replacing negation cannot be applied to a shifted finite verb. Some occurrences of replacing negation appear in contexts of lexical search and are clearly metalinguistic (ex. 79, 80).

- (77) [context: Mario describes his problems in the acquisition of new lexical items]  
*ich muss eine wort nicht einmal hören (...), aber ich*  
 I have to a word not once hear but I

*muss do viele mal hören* Ma 1.7.  
 have to it? many time hear

- (78) [context: Ti complains about the work-load in his job as a waiter; he doesn't even have time for a proper lunch]  
*ich habe auch nicht gesitzt, sondern aufstehn gegessen* Ti 3.5.  
 I have also not sit but stand eaten

- (79) [context: film-retelling; the learner wants to express that a policeman was unconscious]  
*die polizei war – nicht tot, sondern so –* Ti 3.6.  
 the police(man) was – not dead but like –

- (80) *ich fühle mich noch – nicht schlecht, aber seltsam* Ti 3.6.  
 I feel myself still not bad butstrange

The negator is always placed immediately before the constituent to be re-

placed. But with the possible exception of ex. 77), this would also be the position of the negator in non-replacing negation. The organisation constraints of the Post-basic variety II still do not allow the full range of the options found in the target language.

### 6.3.2.6. Integration of negation into the post-basic utterance organisation

In the second level of the post-basic variety, lexical verbs can be fused with FIN. Thus, all types of verbs can now appear in a finite form:

finite copula: *das war nicht neu* Ti 3.5.  
 that was not new

finite auxiliary: *er hat nich gesehn dass die zug*  
 he has not seen that the train  
*is schon weggefahrt* Ti 3.3.  
 has already left

finite modal: *ich kann nich ein dritte kellner kriegen(...)* Ti 3.5.  
 I can not a third waiter get

finite lexical verb: *bis die hauptschule zahls* 2.PS<sub>pl</sub>Pres *du nich* Ma 2.5.  
 up to the highschool pay you not

The constraint “background constituents < focus constituents” is still operative but can be overruled by the new organisation principles: the morpho-syntactic principle of verb shifting and the pragmatic principle of topicalisation. The negator remains in pre-focus position whereby the focus position can be “empty”.

The order of constituents in Post-basic variety II is still the same for both matrix and subordinate clauses, unlike in the target language. In both, the learner's unmarked surface order is:

- |      |                         |   |         |   |
|------|-------------------------|---|---------|---|
| (81) | background constituents | carrier of fin copula <sub>fin</sub><br>auxiliary/modal <sub>fin</sub><br>verb <sub>fin</sub> | negator | focus constituents<br>predicative<br>verb <sub>inf</sub> and complement<br>complement |
|------|-------------------------|---|---------|---|

**7. Summary and discussion**

At the beginning of the paper, I claimed that the following points are essential in the understanding of the placement of the negator during L2-acquisition:

- a) The surface position of the negator is determined by the semantic structure and the background-focus structure of the utterance.
- b) The acquisition of negation is closely related to the acquisition of the expression of finiteness.

In this summary I shall concentrate on these two points.

The learner's initial knowledge base about the structure of the utterance is assumed to be semantic and pragmatic in nature. The learner knows that the structure consists of two components: A lexical content with focus-background articulation and the assertion of this content for a specific time interval. Formally, it can be described as having the following characteristics:

- The structure consists of two components, FIN and INF. INF is partitioned into two parts: one for the topic and one for the focus.
- FIN is an operator with two specifiable positions, AST and TT. FIN has scope over the focus component of INF.
- NEG is an operator which has scope over INF. AST has scope over NEG.

In the learner language the structure of this abstract level of representation is mapped onto the surface structure in a straightforward manner. There are two central mapping rules:

- Elements with background status precede elements with focus status.
- Carriers of operator-information precede elements in their scope.

The surface structure of the learner utterance is basically organised into three parts: one for the denotation of topic elements, one for carriers of assertion and negation, and one for the denotation of focus elements. As a result of the two mapping rules, the surface order is: background constituents < carrier of assertion < carrier of negation < focus constituents.

This order is established at the very beginning of the acquisition process and is maintained throughout. The development concerns the "filling" of the three positions:

stage	background elements	carrier of assertion	carrier of negation	focus elements
pre-basic variety	mainly implicit	no overt marking of AST	negator	only partially verbalised, esp. due to lack of verbs
basic variety	explicit	no overt marking of AST except rare occ. of the copula	negator	verb + complement / predicative
post-basic variety I	explicit	expression of AST/TT by copula, auxiliary and modal verbs	negator	verb + complement / predicative
post-basic variety II	explicit	expression of AST/TT also by finite lexical verbs	negator	verb + complement / predicative

As we can see in the above table, there are two acquisitional tendencies:

- i) The acquisition process is tied to the growth of the lexicon. As the lexicon gets richer, the learner can develop a) the focus component through the integration of lexical verbs, and b) the left periphery, including an increasing sophistication in denotation of the topic time, place and entity.
- ii) Learners work out the expression of finiteness via the following steps:
  - no overt marking;
  - AST is expressed by means of a copula (predicative constructions, no lexical verb involved);- AST and TT are expressed by means of a copula, auxiliary or modal verb; the expression of finite and infinite information are separated, but the auxiliary/ modal and the lexical verb jointly form a syntactic unit;- AST and TT can be expressed by any verb; the lexical verb is

fused with FIN (when the TT contains the TU).

This progression presupposes the establishment of a new mapping rule at the level of the post-basic variety I, FIN-INF linking, whereby the functional verb is fused with FIN. The already existing mapping rules still apply. In fact, the rules are all compatible with each other, until the last phase (Post-basic variety II), when the lexical verb can fuse with FIN and the verb complement can be topicalised. Both processes constrain the range of applicability of the earlier pragmatic and semantic rules. These processes could also be considered as an instantiation of a more general rule: focus elements can be shifted out of their base position. As a result, surface order is no longer required to reflect the scope order at the abstract level of representation.

The placement of the negator in the process is a constant. The negator follows any carrier of assertion from beginning to end, contrary to its position in the learners' source language; thus for AST and NEG, the surface order always reflects the relative scope. The negator also precedes the focus position from beginning to end. What changes is the type of elements that can be shifted out of the focus position. In the end, when even a lexical verb can be shifted, the negator can precede an "empty" focus position, and the resulting surface order no longer reflects the scope relation of FIN/NEG over the focus component of INF.

A negator is present from the earliest stages on, while the expression of AST is initially absent, then develops only gradually. Assertion and negation are semantically related categories in that they concern the validity of INF: the focus is either asserted to satisfy the background or to not satisfy the background. Given this perspective, negation may be understood to initiate and push the acquisition of the expression of assertion (see Dietrich and Grommes 1998).

In utterances with special types of information structure, e.g. utterances with I-topics or with backgrounded INF, the basic utterance organisation is determined by the same mapping rules as in the unmarked cases described above. The special structure is indicated by intonational means, e.g. the rise-fall contour typical for I-topic structures and the highlighting of the focussed negator for the backgrounded INF structures.

Learners also differentiate between two types of negation, replacing and non-replacing negation, as early as the basic-variety level. Here too, the basic utterance organisation is determined by the same mapping rules as in the unmarked cases described above. In the case of replacing negation, however, the organisational constraints restrict it.

To conclude, there is ample evidence that learners are aware of semantic-based and information-structure-based relations in the organisation of the ut-

terance. The picture depicted in this paper is, of course, very global and leaves many aspects unaccounted for. Still, I think that the perspective taken can enrich the debate on finiteness and negation in several respects: a) Semantic and pragmatic categories can be naturally applied in the analysis of even the earliest learner variety as well as in that of advanced stages such that the logic of the developmental process as a whole becomes apparent. b) The approach shows the systematic nature of the interrelation between finiteness and negation which is not always taken into account in the literature, especially in the analysis of Meisel (1997). c) As has been shown, learners encode functional and lexical information separately in the earlier stages of acquisition. This is also a major point in Parodi's (1998) syntactically oriented study. According to Parodi the learners' procedure cannot be traced back to L1 or L2 but is an option offered by UG. She calls it a "sensible measure" on the learners' way to the mastery of agreement (1998: 143). How "sensible" it is indeed becomes apparent when one takes the semantic structure with its FIN-INF distinction and the respective scope relation into account. d) In order to understand the systematic variation in the learners' placement of the negator, a differentiated concept of negation is required which, to my knowledge, has been largely overlooked in the acquisition literature.

## Notes

1. The present study has benefited greatly from other analyses on negation in learner languages presented during the project of the Max-Planck-Institute of Psycholinguistics "the structure of learner varieties" (e.g. Benazzo and Giuliano 1998; Bernini 1999; Benazzo, Giuliano, Perdue and Watorek 1999). It has also benefited greatly from close collaboration with Rainer Dietrich, including earlier joint work on this subject (Becker and Dietrich 1996). Some of the central ideas of this paper were presented in a joint talk given by Becker & Dietrich at the annual conference of the "Deutsche Gesellschaft für Sprachwissenschaft" at the University of Marburg in March 2000.  
I am greatly indebted to Kathy Y. van Nice for her help with the English and her valuable comments on earlier versions of this paper.
2. Criteria for subject-hood and object-hood are derived solely from the referent's semantic relation with the predicate and the pragmatic status of the constituent. The subject is determined on the basis of agentivity and background status, the object on the basis of non-agentivity and focus status. Morphological case marking occurs only at very late stages of acquisition.
3. The acquisitional sequence is reported here in a simplified version. Stauble makes further distinctions between "lower", "mid" and "upper" mesolang.
4. About the nature of the level of representation Klein states (1998: 225-6): "Since

the problem is relatively neutral with respect to the particular assumptions of some specific syntactical or semantic theory, I also tried to keep the presentation as neutral as possible. The only assumption made is that there is a surface level and a more abstract level of representation, called here LEVEL\*, which are related to each other by a number of partly general, partly specific rules. It is not excluded that there are more levels of representation, but no particular position is taken here with regard to that point."

5. In the theory of temporality developed by Klein (1994) TENSE is understood as a temporal relation between TOPIC TIME and TIME OF THE UTTERANCE.
6. The finite verb can also carry other meaning components, like aspect or mood, but these are not relevant for the present discussion.
7. Moser diverges more from the approach of Horn than the short presentation here suggests. She claims that sentential negation can also occur when the subject alone is focussed or when the focus forms only part of the VP. One of the examples she discusses is: *Maxwell didn't kill the judge with a silver hammer*, where – according to her – the focus need not encompass the whole VP, but can be restricted, for example, to the object-NP or to a PP *without* creating a "non-sentential" type of negation (namely an: 'not x but y'-type). Her examples seem to pass Klima's (1964) tests for sentential negation in English. However, if one constructs the German counterparts to her English examples with narrow focus, the negator automatically moves to a position adjacent to the focus in cases where this is syntactically possible and the "not x but y" reading is inevitable. Whether and how Moser's approach can account for such cross-linguistic differences is open to debate.
8. The term "replacing negation" (in German: "replazive Negation") goes back to Jacobs (1982, 1991).
9. German has two adversative conjunctions, *sondern* and *aber*, which differentiate between correction (*er ist nicht dumm, sondern faul*) and contrast (*er ist nicht dumm, aber faul*). In English *but* is used with both correction and contrast, thus both German sentences have the same translation (*he is not stupid, but lazy*); cf. Lang 1977, McCawley 1993.
10. Replacing negation cannot occur, for example, with a non-referential *it*.
11. There is no consistent definition in the literature of what counts as "metalinguistic negation" (see discussions in Carston 1998 and Burton-Roberts 1989). Horn (1989), for example, subsumes all types of replacing negation under this term, and all cases of presupposition denial as well.
12. For example, sentence 16) has the focus value: {ich habe meine Freunde getroffen 'I saw my friends', ich habe meine Freunde nicht getroffen 'I did not see my friends'}. The topic value is given with alternatives to the I-topic: {ich habe Anna gesehen 'I saw Anna', ich habe Anna nicht gesehen 'I did not see Anna'}, {ich habe Erna und Rudi gesehen 'I saw Erna and Rudi', ich habe Erna und Rudi nicht gesehen 'I did not see Erna and Rudi'}, {ich habe meine Freunde gesehen 'I saw my friends', ich habe meine Freunde nicht gesehen 'I did not see my friends',...}}.
13. Traditional grammars of German differentiate between "sentence negation" and "constituent negation". Jacobs (1982: 39ff) has shown that this dichotomy does not

allow a coherent classification of the patterns of negation in German.

14. Biographical data on the informants and information on the field methods are given in Perdue 1993. Part of the data is available through the CHILDES data bank at the Max-Planck-Institute for Psycholinguistics in Nijmegen, NL.
15. The examples are given in orthographic transcription. If necessary, the context of use is indicated in brackets just above the example. Other conventions are as follows: \_ indicates self-interruption, \* \* enclose first language elements mixed into the utterance, ( ) enclose a sequence difficult to identify, [ ] enclose elliptical elements added to secure the understanding of the example, < > enclose a transcriber's comment, underlining of a word indicates intonational highlighting, / indicates a rising pitch accent, \ indicates a falling pitch accent.
16. In some theories of negation it is assumed that the negator has scope only over the focus component. If this were true, the surface position of the negator in the learner language would directly reflect the scope relation. But this is a matter of controversy (cf. Horn 1989 for an overview of the complex debate) and the assumptions made have numerous consequences for other domains of semantic theory, e.g. for the theory of presupposition, so I will leave that question open.
17. With Ti and Mo the situation is different. Both are at a low level of acquisition at the beginning of the data collection period but they make rapid progress. In the first two sessions with Ti no copula appears although the respective contexts are given. The same basically holds for Mo with the exception of one occurrence of *bin* (1P.Sg.Pres. of *sein* 'to be') which, however, occurs in an utterance most probably learnt by heart. The form *is(t)* first appears in the data of both learners in session 3 where both have reached a level beyond the pre-basic variety. The clearest indication of this are first Aux-V-constructions (Ti - 1 example, Mo - 2 examples), a construction not attested in An's data till the end of the data collection period.
18. Parodi (1998: 99f) also observes the early and, as far as agreement is concerned, correct use of *is(t)*. As Parodi equates 'finiteness' with agreement, she considers the form as finite, even though there are no functional variants.
19. This can be illustrated with an example from session 1.8: *vorher is eine mädche putz* 'before (there) is girl clean(ing)'. The adverb *vorher* 'before' indicates that the topic time is situated in the past.
20. The verb *glaube* (TL 'believe') is used in the sense of 'to think of'. "Lassie" is the name of a TV series.
21. This is clearly shown in the data of An who does not go beyond the basic variety in the course of the data collection period. The first negated copula is attested in session 2.1., and seven more examples occur during the second and the third cycle.
22. In many utterances intonation is influenced by factors other than background-focus structure, e.g. self-correction, lexical search, long utterance-internal pauses. These usages are outside the scope of this paper.
23. Frequency of negated modals in Ti's data: cycle I - 3 occurrences of *müssen*, 1 occurrence of *wollen*; cycle II - 6 occurrences of *müssen*, 3 occurrences of *können*, 2 occurrences of *wollen*; cycle III - 6 occurrences of *müssen*, 23 occurrences of



*können*, 1 occurrence of *wollen*. Mo's data contain only one negated form of *wollen* and one of *können* in cycle III.

24. The concrete implementation of this mechanism depends, of course, on the syntactic model one assumes. Klein is not very specific in this respect but he clearly posits only two levels of syntax, the more abstract semantic level "which is responsible for all sorts of scope relations" and a surface level "which contains the concrete morphosyntactic forms; they are interrelated by some general 'algorithmic mechanisms'" like the rule of FIN-INF-linking (Klein 1994: 232/3).
25. This is not the case with epistemic readings of *können*, as illustrated by *Er kann auch nicht der Täter gewesen sein* 'he might also not have been the person who committed the crime'.
26. There is only one occurrence of *müssen* with a wide-scope negation in the data, and it appears at a later stage of development:  
[context: the informant tells about a quarrel with the boss of the pizzeria where he works as a waiter; when the boss wants him to take over the morning shift in addition to the evening shift, he refuses]  
ich muss nicht morgen früh gehe  
I NEC not morning early go  
'I need not go (to work) in the morning'  
The scope relation can be expressed unambiguously by *nicht brauchen* 'need not', but *nicht müssen* is also acceptable.
27. In the literature there is no uniform solution to this methodological problem. Meisel (1997) considers forms which correspond to the stem or the stem suffixed by *-n* as infinite. He also assumes that in the early stages of acquisition apparently finite forms do not mark agreement. For Parodi (1998) all verb forms with correct agreement marking are finite. She states (1998:136) with respect to non-agreeing verb forms that it cannot always be decided whether they are intended as finite or not. According to Parodi (1998: chpt. 4.5.2.2.), such a decision is possible in negated sentences where the position of the verb relative to the negator can be taken as a test case for verb movement out of the VP.
28. The only forms attested are *das* 'this/that' and the personal pronoun *mir* (1.P.Sg. oblique case).
29. Normally, an I-topic has background status and a topicalised element has focus status. Utterance 76) is exceptional as the whole INF is backgrounded which allows the combination of topicalisation and I-topic.

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## The acquisition of negation in Italian L2

Giuliano Bernini

### 1. Introduction<sup>1</sup>

Major results from our investigation of negation in the acquisition of Italian as a second language are summarised in the following sections with respect to four areas:<sup>2</sup> relevant target structures found in the colloquial input the learners are exposed to are dealt with in section 2; the sequence of acquisition of the repertoire of negative items (clause negation particles, negative indefinites and one focus particle) are found in section 3; section 4 deals with the syntax of negative utterances produced in pre-basic, basic, and post-basic varieties; aspects of the semantics and the pragmatics of the negative structures found in different stages of acquisition, with particular reference to the strategies resorted to by the learners in order to mark the scope of negative items are dealt with in section 5. The presentation and the discussion of the major results is preceded by an introductory section 1 (a short presentation of the learners involved and of the theoretical and methodological background of the investigation) and is followed by a concluding section 6.

The development of negation was investigated on the basis of the longitudinal recordings — mostly consisting of narratives and free conversations with one interviewer — of eight learners with different language and social backgrounds stored in the data base of the "Pavia Project" on second language acquisition of Italian.<sup>3</sup> The learners and their characteristics are shown in table 1.

Table 1. The learners<sup>4</sup>

Wú Chinese	Xiao	Chu	Tughiascin
Age	12	17	45
Length of stay in Italy at 1st rec.	1;6 years	11 months	4 years
Input	freq. / varied	freq. / varied	infreq. / reduced
Learning rate	slow	slow	fossilised
Learner variety develops to >	postb. > adv. postb.	init. post-basic	init. post-basic
Number of recordings	18	18	11
Period of observtion	12 months	12 months	7 months