FINNISH EXISTENTIAL CLAUSES - THEIR SYNTAX, 
PRAGMATICS AND INTONATION

DISSERTATION

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*** *** ***

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For my children, Anna and Markus
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LIST OF ABBREVIATIONS

NOM = nominative
GEN = genitive
PAR = partitive
INE = inessive
ELA = elative
ILL = illative
ADE = adessive
ABL = ablative
ALL = allative
OBJ = objective
ACC = accusative
sg = singular
pl = plural
inf = infinitive
partic = participle
cond = conditional
cli = clitic
CHAPTER I
INTRODUCTION

Languages are integrated systems where the theoretically modular components come together and have signalling value both individually and synergistically. Lexical items have their own meanings and functions, but these intertwine with the meanings and functions of the structures in which they appear. The uses that languages serve are universal, but languages vary in the ways they grammaticize the various functions. For example, some languages have grammaticized constituent order for the expression of syntactic roles, but in some other languages constituent order is free and syntactic roles are expressed morphologically. The order of constituents, however, is not void of significance even where it is free, but the alternants have systematic effects. Another universal distinction made by languages involves definiteness, but here, too, the ways of grammatization are not uniform. The typical case may be by explicit morphemes, articles, but this same end can be achieved by word order. Intonation, too, plays different roles in different languages, though it is assumed here that it universally also functions as a formal concomitant of syntactic constructions. Finnish is a language that uses morphology for the marking of the syntactic roles, and variation in word order for the expression of definiteness and various pragmatic values. In this work I will be studying the intimate interaction of syntax, pragmatics and intonation of one clause type in Finnish, but the analysis illustrates a general approach to languages with free word order.

The central notion promoted is syntactic construction, which is the association of syntactic form with meaning and/or pragmatic value (Fillmore 1985; Fillmore et al. 1988; Zwicky 1987, 1988). I propose to have two kinds of construction at the sentence level. One involves individual clause types, which are characterized exclusively in terms their immediate constituency and whose meaning is compositional. Variation in word order forms another set of constructions which encode independently stipulated pragmatic and semantic values; the accentual pattern is one of their central formal concomitants. Because I advance the idea that intonation is an important formal concomitant of the constructions, I will give a
pitch-accent analysis of Finnish intonation. I will also report on an experiment designed to trigger the default FO-contours of the various word order alternants.

What I am thus proposing is that in language use we have an inventory of static syntactic constructions at our disposal, and these constructions may interact with practically all levels of language, and are thus not strictly modular. For example, different clause types can be individuated by their meaning, though these semantic differences are also typically accompanied by syntactic differences. The constructions pertaining to word order encode generalizations involving semantics and pragmatics to which the lexical items must be sensitive. And the intimate connection intonation has with these syntactic forms also illustrates the interweaving of the various levels. Since the aim is also to understand the pragmatics of these rigid linguistic patterns, I will present a basic terminology for discourse analysis.

A few words about Finnish in general are in order. Finnish has a relatively rich inflectional system - fifteen morphological cases - and word order is free in a large number of clauses. Syntactic roles are expressed by case-suffixes. The subject case is nominative by default, but partitive subjects are also frequent; genitive subjects also appear but they are always governed by specific verbs which take no other subject cases. Primary word stress is predictably on the first syllable (see Carlson 1979 and Karlsson 1982 on word stress in Finnish); intonation is not used for grammatical purposes as in English (e.g., declarative vs. question intonation).

I will now briefly summarize what the chapters to follow contain. In chapter II I will state my view of the basic discourse notions, which will serve as the background for the treatment of word order in chapter 4. The central role is played by Old and New information. If these two are understood relationally, as I suggest here, many old problems are solved. Another distinction that must be made explicitly is that between sentence-topics and discourse-topics. Not every sentence has a sentence topic, but only the unmarked ones do; marked utterances address a discourse topic and have sentence topic only in a non-interesting sense. Thus a fundamental pragmatic difference between marked and unmarked utterances is proposed.

In Chapter III I will propose that the existential clause is not a single clause but a whole constellation of constructions. Each construction in the constellation is distinguished from the others by syntactic differences while at the same time they share both syntactic and semantic similarities. I will also briefly note two constructions that are not existential but are formally close to it: the possessive and the manifestation constructions.
Next, in chapter IV word order will be considered. The six logically possible alternants of the existential clauses conform to a pattern of three distinct constructions, Sequence Constructions. Their central formal concomitants are word order and intonation. The neutral order is verb-medial, the verb-final orders encode a contrast on the initial constituent, and the verb-initial variants emphatically affirm the truth of the proposition. These functions cut across all clause types. The neutral order is the overall default which also has the neutral intonation contour by default. The contrastive and emphatic orders have special phonetic prominence or focus on the first constituent, but its scope is different in the two. Word order, in addition to these pragmatic values, encodes the definiteness of the NPs in the sequence. Partitive subjects, which are (almost) unique to e-clauses, pattern with definiteness in predictable ways. In chapter V I will propose a pitch-accent analysis of Finnish intonation, and report on an investigative experiment where subjects produced e-clauses in their various word order alternants. This study supports the default accent patterns proposed for the three Sequence Constructions.

The exercise to be undertaken looks at language both from a formal and functional point of view. The fact that these two sides are not strictly separated makes the implicit claim that utterances are not interpreted only in relation to their context. Rather, the constructions involving word order themselves encode specific meanings and/or pragmatic values, and this guides their use in discourse. The property of constructions to conventionally encode specific meanings and functions is what enables the speakers to use them and the addressees to interpret them consistently. The form-function-meaning connection is conventional at all levels and this pilots the language-users; only the lexical content needs to be computed without any other template but the context.
CHAPTER II
ON LANGUAGE AND DISCOURSE

2. Introduction

If we take the view that the function of language is human communication then we should be able to analyze language in a systematic way from the communicative perspective. This is what discourse analysts attempt to do, but linguists in other subfields, too, frequently evoke pragmatic analyses. There is, however, no general consensus as to what the primitive concepts are. The typical terminology includes notions like topic, theme, and focus for aboutness, old, given, thematic, known and background for what is presupposed or assumed, and new, rheme, focus, foreground and comment for what is not presupposed or assumed. Often these terms are used without any attempt to specify what is meant by them, and sometimes they are characterized only intuitively. In this chapter I will present my view of the nomenclature against the background of earlier research. I will employ only the notions Old and New information, and sentence and discourse topic. The term 'focus' will be reserved exclusively for special phonetic prominence.

I want to make first some terminological distinctions which are going to be important in what follows. The first involves sentence, utterance and construction. A sentence is a syntactic sequence of lexical items. A construction is the pairing of a syntactic form with meaning and/or pragmatic function, i.e., constructions are signs in the Saussurean sense. An utterance is the encoding in actual speech of a construction. An utterance can be marked or unmarked. Markedness is defined pragmatically (Enkvist 1978; Keenan 1976). An unmarked utterance is one which is associated either with existential or no presuppositions; these utterances have the neutral intonation contour (see below). A marked utterance is always associated with specific propositional presuppositions.

Another set of distinctions is that involving text, cohesion and coherence. Text is defined as follows: "any passage, spoken or written, of whatever length, that does form a unified whole" (Halliday & Hasan 1976:1). Cohesion is a term originated by Halliday and Hasan. It is a semantic relation between elements in the text such that
"the INTERPRETATION of some element in the discourse is dependent on that of another. The one PRESUPPOSES the other, in the sense that it cannot be effectively decoded except by recourse to it...[T]he presupposition, and the fact that it is resolved, provide cohesion between the two sentences, and in so doing create text" (1976:4). Cohesion is thus something that is created in the mind on the basis of certain kinds of semantic ties between constituents, and the result is that the passage forms a unified whole. Coherence is a level higher than cohesion: it covers any factor that helps unify sentences into a text. Coherence is thus not necessarily based on cohesion, but a text can be perfectly coherent without cohesion. Coherence is created actively in the mind in interaction with cohesion, context, etc., and especially on the assumption that the incoming utterances collectively are about something. I will propose later on that coherence and aboutness at the level of the text are practically the same.

2.1. Old and New Information

2.1.1. OldInfo and NewInfo as Property of Constituents

The distinction between Old/Given and New information is perhaps the most fundamental one in analyzing text sentences. I will discuss these notions at some length because we need a proper characterization of them to understand the uses of sentences in discourse in general, and also to see how they relate to other discourse notions. For example, many treatments of topic and focus/comment have failed because of ill-conceived definitions of Old and New. I propose that Old and New are relational terms applied to constituents in a text, not to entities or mental states, and once we see this, the whole picture becomes clearer. I will first give my interpretation of Old and New information and then contrast it with other opinions. My conception is close to, but distinct from that of Halliday and Hasan for whom Old/New is a matter of recoverability from the previous text (1976:27):

- Old or Given information (OldInfo) is carried by constituents whose denotation the speaker assumes the addressee can uniquely reconstruct at this point in the discourse.

- New information (NewInfo) is carried by constituents whose denotations the speaker assumes the addressee would not associate with the OldInfo at this point in the discourse.

Information is that property of constituents which reduces uncertainty, and consequently, the constituents that carry OldInfo reduce uncertainty less than those carrying NewInfo. It is a truism that in a specific context some constituents are more informative than others - they tell us more than some other constituents do in the same sentence. Constituents thus carry Old or NewInfo only in relation to each other and the context. Information is
therefore not to be equated with knowledge. It is a property of the signal (i.e., the utterance) which carries the message, and from this message which we may or may not derive knowledge. Since OldInfo and NewInfo are attached to constituents, and are based on a relation between them, they are not absolute terms. Hence, importantly, Old/NewInfo are not a property of entities.

If we divorce Old/NewInfo from entities we will see that a constituent carrying NewInfo may denote an entity that has already appeared in the discourse (in some form). But the fact that an entity has been mentioned previously in the text or is present in the discourse in some way, does not necessarily make the constituent denoting it carry OldInfo because the information status of a constituent is relative. Also, an entity may appear for the first time in the discourse, but the constituent denoting it can still carry OldInfo if it is in the shared background of both speakers. Consider the following examples:

1. He went to the window.
2. Chomsky gave a talk.

In (1) the window the person went to must be known to the addressee, i.e., the entity denoted by window must be present in the text already, and thus the entity itself is old in the sense of being identifiable from the context. But the window carries NewInfo in this sentence, it tells where the person went, that he went to the window, and not somewhere else. The whole VP in (1), in fact, carries NewInfo. In (2) Chomsky carries OldInfo even if the Chomsky-entity had not appeared at all in the previous discourse, or was not present in the context in general. Chomsky is in the shared background of anyone who knows anything about linguistics. But I could not, e.g., say (2) to my mother, who has no idea what linguistics is or who its practitioners are. In (2) the NewInfo is carried by the VP which tells what Chomsky did. Ultimately, what gets assigned to OldInfo and what to NewInfo in an utterance is based on the speaker’s intentions in presenting the message, on the context, on his assessment of the addressee’s and his own shared background, and general knowledge about the state of affairs in the world.

By evoking the relational approach I am following the tracks of Firbas (1966, 1971) and Danes (1966, 1967) who define Old and New information in relation to Communicative Dynamism (CD), which forms a continuum of some property that "pushes the communication forward" (Firbas 1971:136). CD does not come in multiples of some basic integer, but it is a relation among the constituents within a sentence. In the same way, OldInfo and NewInfo are relative terms in that there is not one without the other. OldInfo and NewInfo, however, are not on a continuum like CD, but they form a binary distinction.
2.1.2. Endophoric and Exophoric Ties

The terms Old and New information are frequently applied to entities in the discourse (e.g., Prince 1981; Gundel 1985; Foley & Van Valin 1985). Prince’s influential treatment (ibid.) proposes to give a taxonomy of Old and New information, but in fact hers is a taxonomy of the semantic ties among discourse referents. Giving this, she is basically classifying various kinds of endophoric and exophoric relations. I will discuss endophora and exophora in some detail because they are intimately tied to coherence and aboutness, and later show that Prince’s taxonomy is indeed about these kinds of ties, and not of Old and New information.

The constituents carrying Old/NewInfo may have various kinds of endophoric and exophoric ties, but these ties are independent of the information status of the constituents in question. The NewInfo constituent often has cataphoric ties because in certain kinds of discourse strategies what is treated as NewInfo in one utterance is treated as OldInfo in the next. Thus the OldInfo in these strategies has anaphoric ties. But there can be any kinds of endophoric ties between constituents, and these are independent of their information status: OldInfo can be tied to OldInfo, OldInfo to NewInfo, NewInfo to OldInfo, and NewInfo to NewInfo, too. A constituent possibly has no endophoric, or exophoric, ties, but this, too, has no involvement with the information status of the constituent.

The endophoric and exophoric ties within a text may be direct or indirect. For illustration, let us consider anaphoric relations. We can point back in the text directly by using the same word or a pronoun or a synonym. These are straightforward cases from the lexical point of view, though referentially the matter is rather different (see e.g., Brown & Yule 1983:216). The anaphoric constituents below point back in the text quite unambiguously, but of course the referent is no more the same at the end as it was at the beginning.

3. Take three apples, core and peel them, and blend them for 1 minute in a blender. Spread the puree on top of the cake, and sprinkle cinnamon and sugar on top of it.

This is one of the recipe examples, which are the favorites of many discourse analysts in spite of their belonging to a particular genre, often far removed from ordinary conversations. Anyway, the subscripted phrases above are anaphoric. The two pronouns them refer back to the three apples and the puree to the what they are now, after blending. The last it can refer to the puree or the cake. The puree is an example of direct anaphora as are the pronouns.

In the course of a communicative transaction, the addressee builds a model of the discourse in his head as
the text unfolds; this model, as Brown and Yule note, not only includes the entities introduced but also what is predicated of them (ibid., 219). This allows for easy interpretation of, e.g., the phrase above because the change of state is in the model, too. But the model also makes available the various properties of the individuals as the following examples show:

4. I saw an old house. The door was ajar.
5. Mary bought a new hat. When back at home, she noticed that the ribbon was torn.

The door in (4) is anaphoric to the old house by houses usually having doors. Not all hats have ribbons, but some do, and the ribbon in (5) is interpreted as anaphoric to the hat. Indirect anaphora refers back to some property or entity which is present in a frame evoked earlier, but the property or particular entity denoted need not have been explicitly introduced.

Halliday and Hasan call this kind of anaphora "collocation" and define it as a "cover term for the cohesion that results from the co-occurrence of lexical items that we in some way or other typically associate with one another, because they tend to occur in similar environments" (1976:287). Their description seems to require a linguistic convention of association which, however, is not necessary. Hawkins uses the term "associative anaphora" which is formed by "habitual association" (1978:287). His terminology suggests a psychological association which seems more realistic, but even here there need not be any kind of habitual event taking place. Clark's "bridging" covers anaphoric relations of this kind (1975). I will use the term 'frame anaphora' for the kind of tie where the antecedent of an anaphoric constituent resides in a frame evoked earlier either textually or contextually.

Thus, the model that the addressee builds is not only cumulative, but also self-expanding in that entities and properties are added to the model which are not literally present in the original set of utterances processed. The addressee builds his mental model from the ingredients of the incoming utterances, his own experience and world view. As a result the model may be different from the one intended by the speaker, though in most cases there must be a close match since usually verbal exchanges are successful.

Endophoric relations are part of the text forming material; they help create coherence in the text. But the hearers' own creations are equally important: it is the hearers themselves who ultimately create the coherence of the text in their minds. This is shown by frame anaphora, and by texts that have no explicit cohesive ties among the constituents. Thus, to create coherent texts, it not sufficient to have lexical items repeated across sentences, as Brown and Yule (1983:197) note; there must be something
to tie them all together. The following example from Enkvist (cited in Brown and Yule, ibid.) lacks some overall property that would make it coherent:

6. I bought a Ford. A car which President Wilson rode down the Champs Elysées was black. Black English has been widely discussed. The discussions between the presidents ended last week. A week has seven days. Every day I feed my cat. Cats have four legs. The cat is on the mat. Mat has three letters.

One reason why (6) lacks coherence is that there are no genuine anaphoric relations between the constituents; anaphora hinges on direct or indirect coreferentiality, with or without change of state in between the reference points. The addressee cannot create any ties between the various constituents above because they do not denote the same entities or frames across the sentences. There are also no exophoric relations that would allow for the mental alliance of the entities or properties mentioned; nor are there any other explicit or implicit linkages. The hearer's own reconstructive powers fail because the sequence of sentences has no cumulative value. What is missing is the discourse topic, to be discussed later.

Text sentences may also have exophoric ties like those created by deictic expressions. The following has an exophoric tie from the demonstrative pronoun.

7. That is my car.

Halliday and Hasan propose that exophoric ties do not create cohesion because they do not bind any two elements together in the text (1976:18), but they do, however, help create coherence, as we will see below. Cataphoric relations are less transparent than the anaphoric and exophoric ones, but when present, they are equally important as text-forming material.

I have discussed endophoric and exophoric relations because they are crucial in the creation of coherence and discourse topic by the addressee. The reason they were discussed now is that Prince's taxonomy of Old and New information to be reviewed next is actually a taxonomy of these kinds of relations.

2.1.3. Old/New as Property of Entities

Let us now consider Prince's taxonomy in detail. She gives the following kind of tree of 'assumed familiarity':
Prince's article begins by discussing "old and new information", but the bulk of the text is talking about "old and new discourse entities" interchangeably with "old and new information", thus implying that there is no difference. In a footnote it is noted that 'givenness' is reserved in this chapter for entities, though the term could be used for non-entities, too, like dancing (1981:232). But the point still is that Prince is not discussing information in any sense.

The following examples of Prince's will be used in the exposition of her system below (ibid. 233):

8a. Pardon, would you have change for a quarter?
   b. Noam Chomsky went to Penn.
   c. I got on a bus yesterday and the driver was drunk.
   d. A guy I work with says he knows your sister.
   e. Hey, one of these eggs is broken.

The label Brand-New Unanchored applies to entities that appear for the first time in the discourse without any ties to any entity already present in the discourse, like a bus in (8c). A guy I work with in (8d) has an Anchored Brand-new entity since it is 'anchored' to the speaker through the I. An Unused New is an entity which has not appeared in the discourse but whose presence can be taken for granted for various reasons; an example is Noam Chomsky in (8b).

The Noncontaining Inferrable is illustrated by the driver in (8c) since buses typically have a driver. This is exactly like the frame anaphora discussed above; the term 'inferrable' implies a logical connection, but since this is not necessary I prefer my term. Containing Inferrables have the entity that is the source of the inference properly contained within the NP itself. In (8e) one of these eggs is inferrable through set membership from these eggs which the NP itself contains. These eggs, of course, is exophoric, as Prince herself notes when she says that it is situationally evoked. But if these eggs is
exophoric, so is then one of these eggs, and thus it is not clear what needs to be inferred. Textually Evoked entities are those which are directly anaphoric like the he in (8d). Situationally Evoked are those entities which are present in the context and are thus exophoric like the you in (8a). Prince gives also examples where the above types occur with various kinds of attributes, but the basic taxonomy is the same.

My interpretation of the examples in (8) is the following. In (a) the sentence is an interrogative and thus, although the you is clearly exophoric, the illocutionary force of the utterance is such that it may not make much sense to ask what the OldInfo and NewInfo are in it. Interrogatives request information and as such they provide Old/NewInfo only indirectly; imperatives are not easily amenable to Old/NewInfo analysis either. It is thus not clear to me that all utterances can be given a meaningful Old/NewInfo analysis at all. This is also Lyons’ view (1977:501). It is possible to defend the across-the-board Old/NewInfo division by suggesting that declaratives with the illocutionary force of assertion are the best cases of the Old/NewInfo study, but that there are also other than the best cases. In other words, there would be the prototype and a continuum. Whichever approach is ultimately adopted in this matter does not affect any of the conclusions presented here. With respect to (8a), my view is that if something carries OldInfo in it, it is the you, as Prince suggests.

In (8b) Noam Chomsky clearly carries OldInfo, as discussed already earlier. The bus in (8c) is part of the NewInfo, while the driver carries OldInfo through frame anaphora. A guy I work with carries OldInfo as the speaker assumes the addressee can uniquely reconstruct the denotation; the speaker facilitates this identification by the I work with. He in the same sentence carries OldInfo, too. In (9e) one of these eggs carries OldInfo for the same reason as in (9d): the speaker facilitates the identification though the use of the deictic expression. To sum up, I suggest that Prince’s taxonomy does not apply to information at all, but in applying to entities, it essentially looks at various kinds of endophoric and exophoric relations. These relations are of crucial importance as text-forming material, but are not related to Old and NewInfo. I will go on reviewing still other approaches to Old and NewInfo because this distinction is so central in my later assumptions about the uses of sentences in a text.

2.1.4. Predictability, Accentuatedness and Psychological Salience

Another approach to Old and New is that of Kuno (1978), who uses recoverability, like Halliday and Hasan (1976), but for Kuno recoverability is equated with (un)predictability in terms of the preceding context. Predictability, however, is not possible, apart from
perhaps predicting the syntactic categories involved. We cannot say what any one constituent still to be realized in the unfolding text might denote: the whole discourse might be about some specific entity but we cannot predict when this entity will be referred to by the speaker. In other words, predictability is not to be set on a par with recoverability, which (at least for Halliday and Hasan 1976) is an anaphoric relation, while predictability is cataphoric in a deterministic sense.

Prince, in comparing Halliday (1967) and Kuno, is misled by her own conception of information as a property of entities. She uses the following famous example (1981:227):

9. John called Sam a Republican and then he insulted him.

She states that since the pronouns in (9) carry new information (by being accented), they cannot refer to John and Sam because, according to Halliday, new information is unrecoverable. But Halliday considers oldness and newness to be properties not of entities but of constituents. 'Given' for him is "what the speaker is treating as information that is recoverable to the hearer" from the preceding discourse (not immediately preceding, contra Prince) and new is what the speaker is treating as non-recoverable (Halliday & Hasan 1976:27). Halliday also states that the newness of a constituent "may lie in the speech function, or it may be a matter of contrast with what has been said before or what might be expected" (1967:206), which highlights the relative status of the two notions adopted here. Therefore, we cannot say that pronouns invariably carry OldInfo even though their denotations were easily recoverable from the text. What the information status of a pronoun is depends on its context and accent.

Rochemont has the same problem as Prince with (9). He notes that in (9) the two pronouns are both in focus or New because of the accentual pattern. But at the same time he assumes that pronouns must carry OldInfo and thus he, too, sees a contradiction in (9). His resolution is to suggest that Focus or New does not have a uniform semantic interpretation (1986:51). If we assume, however, that OldInfo and NewInfo are relative notions, independent of entities, this construction is no problem. Consequently, the two pronouns in (9) do carry NewInfo even if the entities themselves are present in the discourse already. Insulted in (9) is frame-anaphoric.

Chafe uses psychological salience in defining OldInfo and NewInfo. His Old is "that knowledge which the speaker assumes to be in the consciousness of the addressee at the time of the utterance" and his New is "what the speaker assumes he is introducing into the addressee's consciousness by what he says" (1976:30). If we take these definitions literally, the speaker should never be able to
introduce anything Old into the discourse without asking first what the addressee is thinking about at that moment. It is impossible to make reliable assumptions about what is in the addressee’s consciousness at any one moment. If the Old is in the hearer’s consciousness, it is there after, not at the moment of the utterance, strictly speaking. A better approach is to say that the speaker makes estimates about what he thinks the addressee can uniquely reconstruct at that point in time and treat that as OldInfo. Chafe’s use of ‘knowledge’ is no better than the entity-approach. OldInfo and NewInfo are not necessarily involved with the actual knowledge we have about the world.

Reinhart (1981) adopts Chafe’s view, which gives her serious problems. She, too, rejects the entity approach to Old/NewInfo and makes it plain how it is not “clear how referents, or objects, can be information at all” (1981:8). Accepting Chafe’s conception of Old and New, however, turns out not to help the situation at all. Consider her example:

10. a. Who did Felix praise?
   b. Felix praised HIMSELF.

In (10b) Felix carries OldInfo and HIMSELF NewInfo, but referentially they are the same. Thus, à la Chafe, Felix is and is not in the consciousness of the hearer — clearly there is something wrong here. Reinhart blames the entity approach for the failure: this example shows, she suggests, that the decision of the Old/NewInfo cannot be based on referents. But obviously it cannot be based on what is assumed to be in the hearer’s consciousness either. She notes that some radical modification in the definition of Old and New might remedy the situation, but does not offer any. I am proposing such a modification, and by this (11b) is not a problem: Felix carries OldInfo and HIMSELF NewInfo.

In phonetics the terms deaccenting and focusing (e.g., Ladd 1980) are used in a way that is somewhat similar to my approach to be discussed in greater length below. In my terms, if a constituent is focused, it carries NewInfo, while deaccenting signals OldInfo. I, however, understand the term focus to denote exclusively special phonetic prominence on a constituent, which is not the case with Ladd. Deaccenting and focusing in phonetics also resemble Halliday’s proposals about the information structure in spoken language, but Halliday defines OldInfo and NewInfo in relation to the speaker, and not to the text, which is what the entity approaches do. A study by Brown (1983) gives some support for Halliday’s approach, and mine, as opposed to the entity views: it was the speaker’s intentions in presenting the material that decided whether a constituent was accented or deaccented. Whether an entity had been referred to earlier in the text or not, was not decisive.
2.1.5. Old/New as Knowledge

The last approach to Old and NewInfo to be discussed is Clark’s Given-New contract. It appears on the surface to be close to my view, but in fact it suffers from some of the same problems as that of Chafe’s. The contract is a Maxim of Antecedence:

Try to construct your utterance such that the listener has one and only direct antecedent from any given information and that it is the intended antecedent (Clark and Haviland 1977:4).

Clark and Haviland characterize Given information as what the speaker believes the listener already knows and the New contains information he believes the listener does not yet know (ibid.). But Old and New do not have to do with what the listener knows or does not know. By this definition the new is something absolutely new, i.e., something that the listener hears for the first time, but this is rather rare in discourses in general. New is New only in relation to the Old at a particular point of discourse, whether the addressee actually knew any part of the propositional content or not. Clark and Haviland do take the view that Old and New are syntactic notions which have a pragmatic function (ibid. 3), which is exactly the view taken here. Syntactic constructions have specific pragmatic values.

Also Dahl has used 'knowledge' in this connection. He assumes that the addressee has in his head a model of the world which the speaker tries to change in some way. He then suggests, correctly, that the Old can be identified with the point of departure of the speech act; I will return to this in the next section, where sentence-topic will be discussed. But then Dahl takes the New to be a change or addition that is made in the model:

We can say that the addressee receives 'new information' in the sense that he comes to know or believe more about the world than he did before. What he believes may be true or false - the information he gets about the world may be correct or incorrect (1976:38).

What the speaker says may indeed be true or false, but the addressee's beliefs or knowledge of the world need not be involved at all. He receives the speaker's message which is presented in a certain communicative perspective, but the addressee need not change or add anything to his state of knowledge or beliefs, though he may. Again, Old and New are relative notions, not absolute, and they do not relate to 'hard-core facts' or knowledge, as the word 'information' seems to lead may a researcher to believe.

We must distinguish 'information' as knowledge from 'information' as a property of the signal. Lyons distinguishes between communication and information in a way that allows us to draw a partial parallel here.
Communication is something that is "meaningful for the sender" and information is "meaningful to the receiver" (1977:33). This dichotomy highlights the asymmetry between the speaker and the receiver. Whatever the speaker says is OldInfo to him, but it is up to him to present the message so that the hearer is able to figure out without major problems what the OldInfo and the NewInfo are. Thus the addressee receives a signal which carries significance at two levels: at the propositional level there may or may not reside something that increases his knowledge of the world, but the signal itself contains important cues as to how the relations between the constituents and utterances are to be interpreted, and these conventions are independent of the propositional content.

I have now discussed several approaches to OldInfo and NewInfo. I proposed that it is a relational, not absolute, dichotomy, and it is independent of entities, real-world knowledge and the states of consciousness of the addressee. But Old/NewInfo interact with another dichotomy proposed, the topic and focus. It seems that focus (in one of its senses) and NewInfo always overlap so that we do not need both terms, except in phonetics, where I will employ the term focus for the special phonetic prominence. Topic, on the other hand, being twofold, in one case coincides with OldInfo, and in the other is a subset of OldInfo, in a non-interesting way. Before discussing these I need to say a word about entities, though.

2.2. Definiteness and Old/New Information

We saw above that defining Old/NewInfo for entities does not work, but the status of entities must be considered, too. Definiteness is a property of entities which is somewhat parallel to Old/NewInfo, but this correspondence, however, is not one-to-one. Definiteness is used here in the sense of identifiability or locatability of the referent in the universe of discourse, the way, e.g., Hawkins proposes to define definiteness (1978). I will return to this matter later in chapter IV. The default connection between Old/NewInfo and definiteness seems to be such that OldInfo constituents denote definite entities and NewInfo constituents indefinite entities. This, however, is not always the case, even though such an assumption is sometimes made (Li & Thompson 1975:165; 1976:461). Consider the following example:

11a. They have a cat and a dog.  b. I don't like the dog.

In the first sentence two entities are introduced which are new in the discourse in that they are mentioned the first time. They have the indefinite article. When the same entities are referred to later they have the definite article. But the dog in both (a) and (b) carries NewInfo.

In (11b) the dog entity is definite by virtue of having been mentioned earlier in the same discourse, and the
 constituent is thus anaphoric. The various endophoric and exophoric relations may then establish an entity as definite. These kinds of examples were discussed in connection with Prince's taxonomy of entities above. Definiteness may also be established by contextual factors, by shared background and general assumptions about the world. OldInfo was defined such that the addressee is assumed to be able to reconstruct the denotation of the constituent at that point in the discourse, and the NewInfo so that the addressee would not be expected to relate its denotation at this point to the OldInfo. The bases of this reconstruction are similar to the ways definiteness is established. But even though definiteness and indefiniteness, and OldInfo and NewInfo, respectively, may be based on similar conditions, they are, nonetheless, independent notions. OldInfo and NewInfo can be applied to any constituent, while (in)definiteness only applies to entities; in English, the markers signalling definiteness—articles—are found exclusively on NPs. Another question altogether, not touched upon here, is whether every constituent having the indefinite or definite article denotes an indefinite or definite entity, respectively.

2.3. Marked and Unmarked Information Flow in Utterances

In a previous section I discussed various approaches to Old and NewInfo. I proposed that this dichotomy is a relation between the constituents in the text. But not all sentences follow similar patterns of Old and NewInfo, and not all sentences have similar amounts of Old and NewInfo. The distribution of OldInfo and NewInfo within a sentence is either predictable or nonpredictable. When the distribution of Old/NewInfo is predictable, it means that given a syntactic form, we can predict what its accentual pattern will be. This predictability, however, does not mean that there is a one-to-one correspondence between accent patterns and sentences; it only means that we can predict the default contour for a particular sentential form.

The accent assignment which is predictable from the syntactic form results in either marked or unmarked utterances; these will be illustrated presently. When the accent assignment is not predictable, we get marked utterances. The diagram below portrays these relations:

```
information flow in an utterance
    / \ 
   /   \ 
  /     \ 
predictable  nonpredictable
   / \  / \  / \ 
  /   \ /   \ /   
unmarked marked marked
utterances utterances utterances
```
The following illustrate the above:

12. John ate an apple.  - Predictable, unmarked
13. It was an APPLE that
    John ate.        - Predictable, marked
14. John ate a RED apple. - Nonpredictable, marked

Note that this predictability is indeed a matter of defaults: we cannot predict all the intonational contours a sentence can have.

When Chomsky and Halle (1968:21) proposed their nuclear stress rule, they were implicitly talking about the predictable information flow of the neutral intonation contour. Bolinger, on the other hand (e.g., Gussenhoven, Bolinger and Keijsper 1987), has always emphasized the non-predictability of the accentual patterns. In doing this, he is focusing on the total patterns of information flow in utterances and not just on the neutral ones. The 'duel' fought between Bolinger and Gussenhoven (ibid.) is about determinism or nondeterminism in accent assignment. But we have covered the ground if we accept, first, that accents may be important formal concomitants of syntactic constructions, and as such they are predictable as the default assignments. But, secondly, we also know that speakers may use practically any assignments of special prominence, as the examples by the two duelers show (ibid.), and hence the intonational contour can be unpredictable as well, and thus probably more morphologically oriented, as Bolinger suggests (ibid., 52).

There is a big difference in the amount of OldInfo and NewInfo in the marked and the unmarked utterances. This kind of dramatic disparity is achieved by different means in Finnish and English. English typically adds grammatical morphemes to form a new construction, while Finnish often uses alternation in word order with the same effect; in both cases each of the constructions has its default intonation. In both English and Finnish the marked utterances have much more OldInfo than the unmarked ones have. Consider (12) - (14) again. In (13) the NewInfo is carried by the APPLE; the pragmatic value of the construction probably has to do with contrast. In (12) the only OldInfo is carried by the subject and the rest is NewInfo. In (14) all but the RED carries OldInfo. The important point is that whether the information flow is predictable or not, both the encoding and the decoding of the pattern is conventional.

Next I will illustrate with some simple examples the differences in the information flow in six word order variants in Finnish. I will propose that the neutral word orders, SVX and XVS, have by default the so called neutral intonation. What the actual contour of this neutral pattern is will be discussed later, but the important point for now is that this pattern is defined by its association with existential presuppositions. The following illustrate
the Finnish default word orders with their default accent patterns, with the resulting utterances being unmarked:

15. Kissa nukkuu *sängyßä.*
cat-NOM sleep-3sg bed-INE
The cat sleeps in the bed.

bed-INE sleep-3sg cat-NOM
There is a cat sleeping in the bed.

The following have marked word orders with their default intonation which has an initial special phonetic prominence; the resulting utterances are marked:

17. KISSA *sängyßä* nukkuu.
cat-NOM bed-INE sleep-3sg
It's a cat that sleeps in the bed.

18. SÄNGYSSÄ kissa nukkuu.
bed-INE cat-NOM sleep-3sg
It's in the bed that the cat sleeps.

19. NUKKUU kissa *sängyßä.*
sleep-3sg cat-NOM bed-INE
The cat DOES sleep in the bed.

20. NUKKUU *sängyßä* kissa.
sleep-3sg bed-INE cat-NOM
In the bed there DOES sleep a cat.

In (15) and (16) only the first constituent carries OldInfo and this is the default convention associated with these orders. There is thus very little OldInfo in the neutral word orders by default. But consider (17) and (18). They have the opposite distribution: only the initial constituent, which has the intonation peak, carries NewInfo while the rest carries OldInfo. These utterances always require a specific propositional context and what is OldInfo in them is reconstructed from this. In (19) and (20) all constituents carry OldInfo anaphorically, but the focus has the whole proposition in its scope, i.e., the NewInfo is carried by the proposition; these examples will be considered in detail later. I emphasize again, that it is not the case that in the marked word orders the NewInfo is always at the beginning, or that in the unmarked orders the first constituent always carries OldInfo; these are the default assignments for these constructions. This point will be discussed in greater extent in chapter IV below.

It is obvious from the above that I reject Schmerling's (1973) view that there is no such thing as neutral intonation or what she calls 'normal intonation'. One of her reasons for not accepting the notion is that she assumes that if there is such a thing as neutral intonation, then every sentence should be able to have it. It is not clear why this should be the case. It may be that the
then popular TG frame forced her into that. Sentences were seen in terms of one underlying form and a set of derivations. Analogously, intonation had one base form and several derivations, but for intonation it was difficult to see what the base form might be for many a sentence. Consider the following (Schmerling 1973:63).

21. Even a two-year-old could do that.

Schmerling asks the question that if this sentence has a derived intonation contour, then what is it derived from, since this sentence can never have the neutral intonation contour (ibid.); in this case the contour is determined by the word even. But the notion that every sentence must have the ability to take the neutral contour is misguided. We can define the neutral contour only in terms of pragmatic presuppositions, and if we accept this, it is clear that not all sentences are eligible for the neutral intonation. Syntactic forms may themselves encode certain pragmatic values which are incompatible with existential or no presuppositions that the neutral contour is associated with. And a lexical item may guide a specific default accent pattern onto a sentence, too, as was the case in (21).

The examples here were very simple, but they illustrate the fundamental difference between the marked and the unmarked utterances. The latter contain very little OldInfo and are associated with existential presuppositions only, if any. The marked utterances carry relatively little NewInfo and they are always associated with propositional presuppositions. The unmarked utterances can be characterized as those which in the traditional tests may answer questions like "What happened?". Whether the information flow in an utterance is marked or not, its signalling is conventional and involves the use of various linguistic devices: word order and other special constructions, morphemes, and the accent pattern, maybe all in concert. The realization of the information flow within an utterance is conventional, but which particular phrases or words are tagged by the markers of OldInfo and NewInfo is a dynamic choice, based on the speaker's intentions and assumptions about the addressee.

The asymmetry between the marked and the unmarked utterances reflects whether these utterances are used to address the sentence topic (S-topic) or the discourse topic (D-topic). This informational asymmetry also provides for the necessary redundancy in the text. We cannot continuously add literally brand-new material into the discourse, because the processing would become impossible, as Firbas has pointed out (1962:136). For a text to be 'processable' it must contain a heavy dose of redundancy. This is where the contrast between the marked and unmarked utterances finds its ultimate utility: the differences in the information structure accomplish their critical function only, but indispensably, in discourse.
2.4. The Sentence-Topic

The usual assumption is that whole texts and subtexts like paragraphs are about something, that they have a topic; but it is also assumed that sentences are about something, that they, too, have a topic. I maintain that both views are correct but the two topics are distinct: the sentence topic (S-topic) is an entity which is linguistically realized by a constituent functioning like a NP, while the discourse topic (D-topic) is a Gestalt built on the basis of the text, the addressee’s experiences, world knowledge, and the context. Note that I am taking the addressee’s point of view with respect to the D-topic. Whatever the speaker thinks he is talking about is one thing, but whether the addressee is able to match this in his model of the discourse is another. The important point is that the addressee must end up receiving a coherent message, not just that the speaker presents one. Therefore the addressee’s viewpoint is more important in considering the D-topic. The S-topic is conventionally encoded, and thus both participants are equally important. In a text, all utterances add something to the development of the D-topic, but some utterances are about a S-topic while some others address the D-topic only.

Reinhart, too, recognizes that there are two topic notions, but she proposes that the D-topic is built on the S-topics (1981), a position which I disagree with since this suggests that the D-topic is, in general, also an entity. In some studies it is not clearly recognized how many topic notions are actually involved. For example, Li and Thompson argue that one of the sentence constituents is the topic, but this is then defined as what the discourse is about, while at the same time they limit its domain to one sentence (1976:464). They are discussing Chinese and languages with similar typological characteristics, and thus we cannot directly compare their framework with languages like English or Finnish which lack comparable constructions. But it seems that the constituent they describe as the topic is not the S-topic as defined here, but indeed the D-topic. Tsao comments directly on this when he discusses the Chinese topic and states that Li and Thompson "fail to realize that one of the most remarkable characteristics of topic...is that it may extend its semantic domain to more than one sentence" (1984:38). Thus the topic constituent in Chinese, and apparently also in Korean, Lahu, Lisu and Japanese, is not (necessarily) the sentence topic but the discourse topic.

The following example from English has a structure analogous to the Chinese topic-construction:

22. As for Mary, from then on the dragon carried her to school on his back every day.

The first constituent introduces a D-topic, Mary, but the following clause is about the dragon which is (trivially) the S-topic. The pronoun her is part of the Newinfo.
Thus, the D-topic can have an overt manifestation in English, too, but it need not; none of the sentences in the next examples have an explicit D-topic.

23. Temperature is measured by thermometers. The basic parts of a thermometer are a tube which has mercury in it, and a scale. The scale is divided into degrees. Zero is the freezing point and 100° the boiling point of water. The freezing and boiling points were used as the basis of the scale, because it was believed that these were constant. The irregularities were discovered only later.

24. The reactor consists of large graphite blocks through which are installed aluminum pipes. The cadmium sticks, which you see topmost, go all through the mass. That large pipework up there transports the water needed for cooling.

But even it Chinese does have the D-topic construction, the D-topic can also be left inexplicit. I asked three native speakers of Mandarin to translate the above passages into Mandarin and none of them included the double NP in any of the clauses. They all agreed that passages like those above as perfectly fine without the topic-construction; note that the second example (24) has no endophoric ties at all (all are exophoric). Pragmatically, we would expect the uses of the Chinese topic-construction to be such that its use signals the introduction of a new discourse entity and/or a change in the D-topic.

I will propose in chapter IV that the S-topic in Finnish is the initial NP in the neutral word orders, that sentences with these word orders are about or predicate something about the referent of the first constituent. The S-topic is a referential constituent occupying a particular position in a particular construction. I believe the situation to be similar in other languages, too; each language has a specific set of constructions that have a S-topic. This topic-constituent is typically a semantic argument of the verb, but this need not be the case. The D-topic, on the other hand, does not have any kind of relation to the main verb. For example, Li and Thompson (1976:461;466) explicitly propose that the (ir) topic need not have any selectional relation to the verb and bears no syntactic relation to it either. Their proposal follows naturally if we assume that their topic is the D-topic—what the whole subtext is about, and this constituent obviously does not need to have any particular relation to any of the sentence elements. The S-topics are more likely to have close relations to the verb since they are what the predicates predicate something about.

Strictly speaking, the S-topic is the entity denoted by the constituent in question, about which the speaker says something, but since this entity is mediated by a linguistic expression, we may well call this expression the S-topic. Dik takes a similar view on the S-topic: it is the
entity about which the predicate predicates something in a given setting (1978:14). Reinhart suggests that the S-topic cannot be an entity, but she bases this on her acceptance of Chafe's definition of Old/NewInfo. Her argument goes as follows: since the S-topic carries OldInfo, a coreferential NP in the same sentence cannot carry NewInfo because this would result in a contradiction, since an entity cannot simultaneously be in the consciousness of the addressee and not be there (1981:18). But as noted above, if we modify the definition of OldInfo and NewInfo, we do not have problems of this sort. Thus the S-topic is an entity which is represented by a constituent denoting this entity in the sentence.

Morgan (1975) and Brown and Yule (1983:71) have explicitly denied that it is not sentences that have topics but it is the speakers that have them. It is indeed the speakers, and the addressees, that have the D-topic, but also sentences may have topics - speakers predicate in them something about something. When a person speaks, he has an entity in his mind that he wants to say something about. But this is not sufficient. There is again an asymmetry between the addressee and the speaker. The addressee does not start from the same premises as the speaker: the speaker knows what his S-topic is, but the addressee has to figure it out from the stream of speech. For him to do this successfully, there must exist some convention which signals what this topic-entity is. My suggestion is that this convention involves a set of constructions where in each some specific constituent conventionally denotes the entity that the sentence is about. Thus, a sentence can also have a topic, and this is so because the addressee must be able to unambiguously figure out what the speaker is talking about in a sentence.

The S-topic typically occupies the initial position in the construction, but we cannot say à la Halliday (1967) that the first constituent in a sentence systematically is the S-topic. Position does come into play indirectly, though, in that the S-topic carries OldInfo, and only unmarked sentences have S-topics. And the default distribution of Old and NewInfo in unmarked sentences is virtually universally OldInfo before NewInfo.

It is not the case, however, that every unmarked sentence must have a S-topic. Obviously, if the arity of the verb is zero, there is no S-topic:

25. Ukkostaa.
   thunder-3sg
   There is thunder ('it's thundering').

   started-3sg rain-inf
   It started to rain.

In Finnish there are also some particles which mark the whole proposition as NewInfo with respect to the preceding
D-topic and thus these sentences have no S-topic (Wilimaa-Blum 1987), at least not in any interesting sense. In English, e.g., the existential construction 'there is...' and the cleft 'it is...' have no S-topic.

Gundel, too, suggests that there are sentences that have only focus but no topic (1985:94). I do not agree, however, that her examples actually illustrate these all-focus-sentences. Consequently, I do not think either that the problem with the King of France is solved, as Gundel proposes. According to my analysis the following sentences with the neutral intonation contour cannot have an all-new interpretation, contrary to Gundel (ibid.); the examples are hers.

27. The King of France visited the exhibition.
28. The King of France gave me this gold plated cake knife.

The subject here is the S-topic, something is predicated about it, and even if this were the first time the non-existent French entity is introduced in the discourse, the speaker assumes that the addressee can uniquely reconstruct its denotation. Gundel assumes that since (27) and (28) have the all-new interpretation, these sentences have only focus, and thus there is no (sentence) topic, which is supposed to be a given entity. Thus, according to her, if the King of France is not the topic here, the expression is therefore not referential.

I disagree with this. I am also assuming that the S-topic carries OldInfo, but information, as established above, is not a property of entities. Therefore, whether (27) and (28) are false or lack a truth-value cannot be decided on the grounds that the subject is not the topic and therefore not referential. Even if givenness is not a property of entities, S-topichood is, and thus (27) and (28) are about the King of France and hence the sentences do have a S-topic. In ordinary conversations I believe that the S-topics pragmatically refer (cf. Reinhart 1981:13), and carry OldInfo. Strawson presumes, too, that S-topics carry OldInfo, when he suggests that speakers assume that the audience is in possession of identifying knowledge of the item that is being talked about in a sentence (1971:89). Also Horn (1986) adopts the view that the S-topic carries OldInfo.

The notion of S-topic is to a large extent an intuitive one, but the intuitions about aboutness for the examples given above are clear. These sentences would also pass the 'topic-test' mentioned in Reinhart (1981:11): for instance, if we can embed the sentence in question as below, then the constituent after about is the topic.

29. He said about the skirt that it is adorned by a gay ribbon.
But if we accept the distinction between S-topics and D-topics as proposed here, these tests are not so useful any more. Reserving the S-topic only for neutral sentences saves us from these tests because there is no ambiguity in them as to what the S-topic is. The tests are potentially useful only for the marked utterances, but for them they turn out to be unnecessary because these address the D-topic, not a S-topic. This will discussed shortly.

Let us consider two examples that Reinhart gives in connection with these tests to make the point that we cannot expect all sentences to have S-topics. The test here is such that if the proposed constituent can occupy the position X in as for X..., then the constituent is the S-topic. She applies the test to the following two sentences (1981:11):

30. There is a fly in my tea.
31. More people are familiar with the book's catchy title, than are acquainted with its turgid text.

The result is that neither of the underlined constituents is a good S-topic. Reinhart suggests that the fundamental reason is that neither NP can be interpreted as referential (ibid.). It is not clear that this is true of (30), but nevertheless, (30) is an existential construction and carries only NewInfo, and thus does not have a S-topic anyway. As for (31), it is a special comparative construction whose semantics is such that the constructional meaning itself does not predispose the first NP to be the S-topic. The more is intimately associated with the than and thus the NP in question is not just any quantified NP but part of a larger construction. These sentences show that in looking for the S-topic, we have to consider the whole construction and its pragmatic function, not just individual constituents.

In this section I have proposed that the S-topic is a constituent which denotes the entity that the sentence is about, and thus S-topics are referential, at least pragmatically. I also suggested that the S-topic carries OldInfo, information value not being dependent on entities but on a relation between constituents. Not all sentences have a S-topic but only those with the unmarked word order and the neutral accentual pattern. But all sentences in a text participate in the creation of the D-topic, what the whole discourse is about.

2.5. The Discourse-topic

The D-topic and coherence are closely connected, both depending on a psychological process of forming a Gestalt. A text may be perfectly coherent without any cohesion à la Halliday and Hasan though cohesive ties are probably the typical situation. But whether or not there are semantic ties between constituents in a text, the addressee tends to assume that the unfolding text is about something. This assumption induces him to formulate some notion of
aboutness in his mind, which then creates coherence. Thus coherence and the D-topic both have to do with aboutness. My proposal is that the D-topic is a Gestalt of aboutness. The reason that D-topic needs to be discussed is my suggestion that marked utterances address the D-topic, not a S-topic.

Gestalt is mental entity which is not simply the sum of its parts; a Gestalt always has something additional and unique in it, not explainable from the parts alone. What is 'additional' is the creation of the perceiving mind (on Gestalts, see e.g., Hilgard and Bower (1975). That the D-topic Gestalts are indeed based on something beyond the immediate percepts is illustrated in the linguistic domain by the fact that we understand messages even when the sentences are fragmented, missing words. Also, the fact that different people may hear the same linguistic material as being about something different shows that these Gestalts are unique creations of the perceiver.

To give a simple analogy, let us consider a Gestalt from the visual domain.

The above is a square even if there is a big hole on the bottom and many small ones on each side. When we perceive the above configuration, we are in some sense led to expect a square and actively fill in the missing detail, and our expectation is satisfied. But the square, nevertheless, is the product of the mind, the square-Gestalt containing something that the mind has created, something not present in the percept. The D-topic Gestalt is just like the square above. The unfolding discourse leads us to 'expect' the D-topic which we reconstruct in our minds, and this expectation guides the processing of the subsequent utterances. The D-topic is built on linguistic elements which have their conventional meaning/function, which are like the little lines above, and on non-linguistic elements in the context and memory, which fill the gaps between the little lines. The D-topic is erected by the mind from the unfolding text material and the cognitive material stored in the long and short term memory. These Gestalts themselves thus are not conventional but unique.

What is important to keep in mind in this connection is that a text is a dynamic process (Brown & Yule 1983:23); it unfolds and it is received in real time. Thus, it would be beneficial for the receiver to have some expectations about
the text, as comprehension is dynamic, too. This is where the Gestalts come in. When we listen to someone speak, we try to make sense out of what we hear while we hear it; it seems that we are all the time imposing meaning into the whole that we receive. What shows that this is an active psychological process is the above fact that we are able to understand whole passages of texts even if many of the words are missing. And as another illustration, Reinhart points out, the interpretation of anaphora may depend on the D-topic (1981:16), which shows that the addressee's internal model is working actively.

It is now easy to see how the marked utterances address the D-topic and not a S-topic. They are contextualized utterances, and they carry part of the context in them in the form of propositional presuppositions, and in the form of OldInfo. They are about the Gestalt, the mental entity which is in the process of being erected in the mind of the addressee as the text unfolds. These marked utterances are thus not necessarily about a single entity like the S-topics, but can be about a complex set of relations which would sometimes be hard to put into words. The fact that marked utterances are always associated with propositional presuppositions makes it obvious that they are not about an entity denoted by one of their constituents. Rather, they address the D-topic, the Gestalt of aboutness which is under formation. I do not maintain that we cannot establish a S-topic in marked utterances, only that it is not of any real interest to do so, since these utterances anyway are not about this entity in the same sense that unmarked utterances are.

To illustrate what I mean by saying that some utterances address the S-topic and some the D-topic, consider the following:

32. Paul ate an apple.
33. It was an apple that Paul ate.

In (32) we have only existential presuppositions; Paul exists and an apple exists, and we predicate the eating of the apple to Paul. We are also talking about Paul. But in (33) we already presuppose that Paul ate something and the only NewInfo is carried by the constituent denoting what he ate, the apple; we are not talking about apples or Paul but about Paul's eating something. Thus (33) addresses the D-topic, which has to do with Paul's eating something. In (34) below the subject is the S-topic and there need not be any D-topic yet. The object may be the D-topic as in (35), while Paul is still the S-topic. In (36) the subject is both the S-topic and the D-topic. In general, the D-topic need not, of course, be an entity at all.

34. Paul loves Mary.
35. As for Mary, Paul loves Mary/her.
36. As for Paul, Paul/he loves Mary.
When Reinhart states that "equivalent sentences may have different topics (even if they mention precisely the same referents)" (1981:5) she is not clearly distinguishing between the D-topic and the S-topic. Consider again the sentences above. According to Reinhart the S-topic in (35) is Mary and in (36) Paul. My view, as we saw, is that Paul is the S-topic in all of the above while Mary is the D-topic of (35) and Paul on (36). But, of course, the S-topichood in the latter two is not very much on the foreground since these address the D-topic, and it is not of much interest to figure out what the S-topic is. Thus, even if a constituent signals aboutness, it need not be the S-topic, but it can be an explicit D-topic.

Lyons suggests that every utterance that "is informative, provides the answer to either an explicit or implicit question" (1977:503). This is the spirit in which Carlson (1983) defines topic: each utterance can be seen to be a response to a range of implicit questions, and what the topic is depends on the question. In the present framework, Carlson's topic is more like the D-topic, and for him there is no distinct S-topic.

We saw above that Reinhart (1981) proposes that the D-topic is built on the S-topics, and that Li and Thompson (1976) also assume a constituent in a sentence to be the D-topic. The D-topic may indeed be an entity which has a linguistic counterpart in the text as we just saw in the above examples, but I do not think it is necessarily based on the S-topics. Consider the following example, which has the same structure as the sentences discussed above:

37. As for Mary, we were all surprised to see her leave.

Mary is the explicit D-topic here, but the S-topic is we—the S-topic and the D-topic are distinct entities. And as the examples below will show, there need not be an explicit linguistic entity at all to name the D-topic, and it can be a non-entity as well. The S-topics also carry OldInfo while in (37) Mary carries NewInfo. This construction typically changes the D-topic, or introduces a new discourse entity, and the first NP carries NewInfo. The full clause makes a reference to this entity, but this clause need not be about this same entity, as (37) is not. Therefore the D-topic is something entirely different from the S-topic.

Where it is obvious that something is built beyond the linguistic expressions are the cases where the explicit linkage between sentences is missing, or arbitrary. Sentences can be linked by cohesive ties to each other, but they can also have what Reinhart calls a "semantic linkage" (1981:20) which illustrates the lack of explicit linkage:

38. Ready? Well: when I reentered my office the clock in the tower of the Municipal Building was just striking two, and as if by a prearranged signal, at the
same moment, the raucous voice of a stream calliope
came whistling in off the river: 'Adam's Original and
Unparalleled Floating Opera'; one could guess had just
passed Hambrooks Bar Light...

The underlined constituent, according to Reinhart, links
the two parts of the text together; note the absence of any
semantic ties between the constituents.

Finnish has a pragmatic particle, –han/hänen, which has a
linking function (Hakulinen 1976:22) but it is an arbitrary
one, based on convention, i.e., it has no semantics of its
own, unlike the underlined portion in Reinhart's example
above. Consider the following (from Hakulinen 1976:21):

39. Erlander on sitä vastoin huoletunut, tutkii,
       Erlander is it-PAR against worried explores
       katskelee ympärilleen. Odysseushan Troijan
       looks around-him Odysseus–HAN Troy-gen
       sotureista sällyi kauimmin hengissä monipuolisen
       soldiers–ELA remained longest alive many-sided
       oveluutensa ja epäilevänsä viisautensa ansiosta.
       shrewdness and doubting wisdom–GEN-his due

Erlander, on the other hand, is worried, explores and
looks around. It was Odysseus, after all, who among
the warriors of Troy stayed alive for the longest time
because of this versatile shrewdness and his doubting
intelligence.

In (39) we have two sentences with no semantic links
whatsoever between them; only the underlined particle –HAN
ties them together. Without the –HAN, (39) would be just
two isolated sentences. The use of this particle is
distinct from Reinhart's semantic linkage, but it, too,
illustrates a convention employed in texts that facilitates
the creation of the D-topic.

The following example illustrates the case where the
text-sentences have only exophoric ties.

40. The reactor consists of large graphite blocks
    through which are installed aluminum pipes. The
    cadmium sticks which you see topmost, go all through
    the mass. That large pipework up there transports the
    water needed for cooling.

This passage is coherent in spite of the lack of any kinds
of overt linkages; what ties the sentences into a text is
the external context and this thus becomes part of the
discourse in the addressee's mind, and this allows for the
creation of the Gestalt of aboutness. These last two
examples, incidentally, would seem to pose a problem for
the kind of model of discourse processing proposed by Grosz
and Sidner (1986). In their model a basic assumption is
made that utterances contains a "backward-looking" or "forward-looking" centers, i.e., each utterance would have a locally or globally anaphoric or cataphoric constituent, apparently an NP. This assumption is safe for a large number of utterances, especially for the task-oriented type illustrated in the article. But clearly not all text sentences have this kind of looking back or ahead property, as we can see right above.

To sum up this section, I have proposed that the D-topic is a psychological entity, a Gestalt. It is built actively by the addressee on the basis of the incoming text with all of its linguistic and non-linguistic conventions, and the contents of his own short and long term memory. The D-topic can be an entity, though it need not be, and therefore it is distinct from the S-topic. The D-topic does not always have an explicit linguistic expression in the text that would name it, but it can be built up entirely by the addressee, as the exophoric sequence in (40) illustrates. All utterances in a text contribute to the formation of the D-topic, but unmarked utterances have a S-topic which they 'say' something about; marked utterances address the D-topic, and thus to find their S-topic is not of interest in the discourse.

2.6. A Word on Defaults

I made use of the notion of default above, and will be doing so in what follows. Default forms are not the same as the basic or underlying forms (see Zwicky 1986 for discussion). One difference is that basic forms assume a process of derivation which defaults do not. The use of defaults is no accident here: the fundamental assumption made in the chapters to follow is that syntax provides the language users with a set of static constructions where all derivation is alien. The defaults are the forms that are used unless otherwise specified.

This position entails that defaults are in some sense 'neutral'. But neutrality and markedness, which we may equate, are exclusively pragmatic notions, and thus not the same as defaults, which permeate every component of grammar (ibid.). Neutrality or markedness is defined here in terms of pragmatics while defaults are not. Defaults are rule choices with or without any pragmatic consequences. It is therefore not the case that every default form is neutral or unmarked. We will see below that, e.g., a particular word order may have a specific default accentual pattern, but the resulting utterance is not necessarily unmarked. An unmarked utterance corresponds to a construction whose pragmatic value encodes existential or no presuppositions, and these happen to have the default word order and the overall default accent pattern, which is the same as the neutral intonation.
2.7. Summary

In this chapter I have proposed a nomenclature for analyzing text sentences. OldInfo and NewInfo are defined in terms of the speaker's assumptions about the hearer, and are seen as relational, not absolute, terms. Some sentences have a S-topic, which is the constituent denoting the entity talked about in that sentence. Whole discourses also have topics, D-topics, which are mental constructs, Gestalts of aboutness. It is assumed that a text is realized by a sequence of constructions whose information structure is conventionally encoded, and thus the addressee knows without special computation whether each utterance addresses a S-topic or the D-topic. Syntactic constructions thus have conventional pragmatic values which are the basis of their use in the text. I will next discuss the Finnish existential clause in terms of its immediate constituency only, and in chapter IV we will see how the e-clause behaves in a text in various pragmatic functions through alternation in word order.
CHAPTER III
THE FINNISHEXISTENTIALCLAUSE

3. Introduction

The Finnish existential clause (e-clause) has been under lively discussion already for decades but still it is not agreed upon what exactly it is. Various authors accept a wide range of syntactic entities under this one heading, central criteria being both nominative and partitive subjects, XVS word order and a particular pragmatic function. But if we consider the e-clause as a strictly syntactic, and not pragmatic, entity, we will have to recognize that there are in fact several distinct constructions subsumed under the traditional term. In this chapter I will propose that the e-clause is a constellation of constructions, the unifying properties being a location adverbial, existential verb and the constructional meaning. The rule-constellation can be established in terms of both its internal and external syntax. The pragmatic functions traditionally attributed to the e-clause are a matter of word order in general, not of this clause type only, and will be discussed in the next chapter.

3.1. The Traditional E-clause

I will now discuss the traditional approaches to the e-clause, starting with the chronologically earlier ones. Let us consider examples which have been considered to be existential:

1. Junasaapui asemalle.
    train-NOM arrived-3sg station-ALL
    The train arrived at the station.

2. Asemalle saapui juna.
    A train arrived at the station.

3. Pihallajuoksee lapsia.
    yard-ADE run-3sg children-PAR
    There are children running on the yard.
4. Lapsia juoksee pihalla.
Children are running on the yard.

Ikola (1964), Siro (1964), and L. Hakulinen (1979) describe this clause type very similarly: it has a locative adverbial, an existential verb, and a subject which can be either in nominative or partitive. The verb is intransitive and expresses existence, state or movement, coming into or ceasing to be in existence, or change of state. The clause has two neutral constituent orders, SVX and XVS (while presumably other clause types have only one, SVX). The verb is in third person singular when the subject is in partitive, regardless of its number while with the nominative subject the verb follows the usual person and number agreement. Siro calls the locative case suffix the quasipredicate (1964:27) which relates its head noun to the subject in a nexus-like relation (1-4). In much the same way, he says, a locative suffix in a transitive clause relates its head to the object (5), and because of this quasipredicate relation, the verb seems to have a less central role in these clauses.

5. Anna antoi omenan Kirsille.
Anna gave-3sg apple-OBJ/GEN Kirsi-ALL
Anna gave an/the apple to Kirsi.

This latter statement about the transitive clauses does not, of course, apply to all transitive clauses with indirect objects; (5), nevertheless, illustrates Siro’s point about the verb’s diminished role.

Another proposed characteristic relating to the verb is that the subject is not thought to function actively, and if the subject is in partitive, then the action is seen as collective and not individual. Ikola (1964:30) gives the following example:

   appletrees-PAR grow-3sg garden-INE
   Apple trees grow in the garden.

7. *Omenapuita kasvaa hitaasti puutarhassa.
   slowly

His explanation is that in (7) the manner adverb brings to the foreground the individual growing of each tree and this is the reason why the sentence is ungrammatical. Hakulinen and Karlsson (1979:169) also note that the subject is not seen as functioning agentively even if the verb might imply such an action, like uida ‘to swim’ and juosta ‘to run’ do. They suggest that these agentive lexical features of the verb disappear at the sentence level, essentially because this clause type is used to introduce new discourse referents (1976:105, 170), and because these adverbs would emphasize those features of the verb which are ‘forbidden’ at the clause level (ibid.). Vilkuna notes that manner adverbs like mielellään ‘with pleasure’ and vastahakoisesti ‘grudgingly’ do not easily appear in e-clauses
because of the lack of agentivity on the part of the subject (1987).

Väähämäki (1984:36, 370) proposes that no 'desemantization' à la Hakulinen and Karlsson is involved with the verb's secondary role. The verb does not lose any of its semantic properties at the sentence level but rather its lesser import is due to a complex of expected semantic relations within the clause. He proposes pragmatic expectations of a semantic match between the verb and its arguments. Thus, because we expect semantic compatibility, the semantic properties of each lexical item are not highlighted but they follow from the system.

Hakulinen and Karlsson (1979:95) and Vilkuna (1987) consider the e-clauses to have basically the same characteristics as those given by the previous scholars: e-clauses typically have partitive subjects (but also nominative subjects), lack number agreement, have frequently a locative adverbial, have 'inverted' neutral word order, and have specific existential verbs. The following is a prototypical e-clause:

8. Autotalissa on vettä.
   garage-INE is water-PAR
   There is water in the garage.

This particular word order variant corresponds to the there is, il y a, es gibt, and det finns constructions found in some Indo-European languages. Accordingly, the major pragmatic function of the Finnish e-clause is said to be the introduction of new discourse referents (Hakulinen & Karlsson 1979; Väähämäki 1984; Vilkuna 1987), just like in Indo-European. No serious discussion is, however, given to the non-prototypical constituent orders. For example, the following is identical to (8) in terms of its immediate constituency and core meaning. If it is existential, what is the difference between (8) and (9), and why is (8) prototypical and not (9)? If (9) is not existential, what is it then?

9. ON autotalissa vettä.
   is garage-INE water-PAR
   There IS water in the garage.

What do we understand with 'existential'? In the Indo-European tradition this name is given to a particular clausal construction, as stated above, which is used to introduce new discourse entities. In Finnish a comparable function can be performed by the XVS word order, which happens to be the neutral, unmarked word order for existential clauses which have partitive subjects, and which order may also be unmarked for a nominative subject. But SVX word order, and other clause types may also introduce new discourse referents, like in Indo-European languages, too, and thus this pragmatic criterion cannot be central in defining the clause type. My proposal is that discourse functions in Finnish are relevant to word order,
not to any particular clause type. Therefore, I will consider the e-clause in terms of its immediate constituency only, and in chapter IV take up word order as a set of independent constructions, with specific pragmatic and semantic values. It is at the level of word order that we will state the pragmatic effects of clauses, not in connection of individual clause types.

Hakulinen and Karlsson (ibid.) and Vilkuna (ibid.) suggest that the e-clause is not a completely unique construction because it shares characteristics with other clause types. This sharing is true, but the e-clause is still a distinct type. As we will see below, syntactic constructions typically do share formal concomitants with other constructions, and thus this sharing is only to be expected. First, however, we need to sort out the internal diversity under the heading existential, and only then can we say how it is distinct.

Vähämäki gives an explicit syntactic characterization of the e-clause but divides it into orthodox and unorthodox e-clauses. The following two rules describe the orthodox ones (1984:381):

10a. (ADVP +) \( V_{INTR,3SG} + NP_{NOM/PAR} \)

b. \( NP_{PAR} + V_{INTR,3SG} (+ ADVP) \)

According to these, the orthodox e-clauses have a final or initial partitive subject, or a final nominative subject. The verb is invariably 3sg, even with nominative subjects. I disagree with this: if the verb does not agree with the nominative subject, the utterance is nonstandard, belonging to a casual style, or alternatively, the subject has some idiosyncracy such as being used collectively; I will discuss this below. The locative adverbial in the rules in (10) is optional. I also disagree with this, as we will see later. Rule (10a) would also include the following type in the e-clauses, even if the verb is not existential - it does not take partitive subjects, which requirement is the central syntactic criterion for e-verbhood:

11. Ölykentillä raivosi tuli.
   oil fields-ADE raged-3sg fire-NOM
   There raged a fire in the oil fields.

The 'unorthodox' group includes clauses that Hakulinen and Karlsson (1979:93, 98), and Vilkuna (1987) would consider to belong to different types altogether. Vähämäki's focus on the partitive 'subject' seems to be the guiding principle:

12. Quantifier clause 1: \( NP_{PAR} + COP + ADVP_{QUANT} \)

   Poikia oli kolme.
   boys-PAR was three-NOM
   Of the boys there were three.
13. Quantifier clause 2: NP PAR + COP + ADVP ADJ, PAR
   Vaikkuksia on monenlaisia,
   difficulties-PAR is many-kinds-PAR
   There are many kinds of difficulties.

14. State clause: this follows from rule 9a.
   (Silloin) oli kesä/ hiljaista.
   then was summer-nom silent-PAR
   It was summer/quiet (then).

15. Result clause: ADP RELATIVE + to come + NP NOM, PAR
   Koirasta tuli peto,
   dog-ELA became-3sg beast-NOM
   The dog turned into a beast.

I follow Hakulinen and Karlsson, and Vilkuna, and do not consider Vähämäki's unorthodox e-clauses to be e-clauses at all.

One more view on the verb's non-central role is Vilkuna's (1987) approach, which resembles Vähämäki's picture. She proposes that there is a close bond between the subject and the verb such that the verb expresses a natural fashion of existence of the subject referent:

16. Sormestani vuotaa varta.
    finger-ELA-my leak-3sg blood-PAR
    My finger is bleeding.

17. Kalat uivat joessa.
    fish-pl-NOM swim-3pl river-INE
    The fish swim in the river.

In (16) and (17) it is a natural mode of existence for blood to bleed and for fish to swim, respectively. Vilkuna notes, however, that this bond may sometimes exist between the location and the verb (her example):

18. Toimistossa työskentelee naisia.
    office-INE work-3sg women-PAR
    There are women working in the office.

What is said to be natural in this instance is the working in an office and hence the bond is between the locative and the verb.

The existence of the bond between the verb and the subject, or alternatively, between the location and the verb, does not work, however, beyond the usual selection restrictions. The following are perfectly normal e-clauses but we would not say that there is a natural bond between the subject or the location, and the verb.
19. Suolla kveli naisia.
swamp-ADE walked-3sg women-PAR
There were women walking on the swamp.

20. Kaalimaan laidalla nukkui kissa.
cabbage patch-GEN side-ADE slept-3sg cat-NOM
On the side of the cabbage patch there slept a cat.

Surely walking has no natural bond with women or swamps, or
sleeping with cats or cabbage patches, not beyond the fact
that all humans walk, and that all animate creatures sleep.
Besides, bonds of the proposed kind are normal in non-
existential clauses as well (‘mother was nursing the
baby’).

3.2. The Location and the Partitive Subject

The views of the quasipredicate-nexus, the lack of
agentivity, pragmatic expectations and the semantic bonds
all highlight the negligible role the verb appears to play
in this sentence type. The explanations given to this
minor role are, however, far too complicated. The verb’s
diminished role is a simple consequence of the presence of
the location. What is happening is that at the clause
level, as we add material to the sentence, the meaning of
the whole is modified, as we would expect, but this is not
a property of existential clauses alone, and thus there is
no need to include it in the characterization of this type.

Consider (21) and (22). The verb has not diminished in
importance in any way even though the two are sentences;
this is because the sentences are very simple with only two
constituents.

children-NOM swim-3pl
The children swim/are swimming.

22. Lapset syvät.
children-NOM eat-3pl
The children eat/are eating.

If we compare the above with (23) and (24) below, we notice
a clear difference: it is no more the relation between the
subject and the verb that is psychologically salient but
the relation between the location of the event and the
subject-verb complex.

23. Lapset uivat rannalla.
children-NOM swim-3pl beach-ADE
The children are swimming on the beach.

24. Lapset syvät rannalla.
children-NOM eat-3pl beach-ADE
The children are eating on the beach.

In (25) and (26) below, however, the location is now less
prominent due to the presence of the time adverb.
25. Lapset uivat rannalla eilen.
   yesterday
   The children were swimming on the beach yesterday.

    ate-3pl yesterday
    The children ate on the beach yesterday.

If we compare the above intransitive and transitive clauses, there is no essential difference between them in terms of the prominence of the verb semantics. Thus, when we say that the verb in e-clauses is less prominent, this lessening is due to the presence of the location adverbial, and the same phenomenon can be observed in any other clause type. Characterized in this way, I agree with Siro that there is a nexus, or a bond, between the locative and the subject. This bond, however, weakens in its turn as we add other adverbials, like in (25) and (26). Consequently, the culprit for the less prominent role of the verb in e-clauses is simply the addition of semantic material into the preceding content, and thus there is no need to mention this 'desemantization' in connection with e-clauses in particular.

The incompatibility of certain manner adverbs with e-clauses is not due to the characteristics of the verb. The adverbs which are incompatible with e-clauses occur when the subject is in nominative (27) but not when it is in partitive (28):

27. Lapset uivat mielessä vän rannalla.
    children-NOM swim-3pl with-pleasure beach-ADE
    The children like to swim on the beach.

    children-PAR

It thus appears that it is the partitive subject that is incompatible with these adverbs, as Vilkuna indirectly notes, and not the verb's lexical properties. The following example shows that it is the combination of the partitive case and the subjecthood that is the underlying problem, not the partitive alone. In using the notation OBJ/PAR below and throughout, I assume that there is a syntactic case OBJECTIVE, which is realized by various morphological case markers; Nevis (1981) has made this proposal for Finnish, and Lockwood (1980) for Estonian.

29. Lapset syövät mielessä vän omenoita.
    children-NOM eat-3pl with-pleasure apples-OBJ/PAR
    Children like to eat apples.

The partitive in the object is perfectly normal with this adverb but in the subject the result is ungrammatical.

We may note in this connection that there is a difference between lexically governed and un governed
partitive subjects. The two instances below are not partitive subjects in the same sense at all even though they both have the noun in partitive:

30. Pihalla on kaksi autoa.
   yard-ADE is two car-PAR
   On the yard there are two cars.

31. Pihalla on autoja.
   yard-ADE is car-NOM cars-PAR
   On the yard there is a car/are cars.

There are two ways to have partitive subjects in Finnish. One is in association with an existential verb and the other is by government: numerals and some other quantifiers assign partitive to their head noun through government:

32. Kaksi omenaa/ *omena/ *omenoita *omenat
    two apple-PAR apple-NOM apples-PAR apples-NOM

The lexically governed partitive subjects appear with any verb, unlike the ungoverned ones, which co-occur essentially only with existential verbs.

33. *Poikia/ kaksi poikaa sīi omenoita.
    boys-PAR two-NOM boy-PAR ate-3sg apples-OBJ/PAR

The governed/ungoverned distinction is important but it is not always fully appreciated. Vähämäki includes both kinds of partitive subjects in his study of existential clauses (1984). He takes the view that 'partitivity' in Finnish is not involved with 'partiality' but is "a purely morphological category [which] has exerted a folktaxonomic influence on the community of scholars", and induced them to equate partitivity with partiality (1984:26). I take partiality here to mean non-exhaustiveness. It is true that sometimes a partitive noun is void of the partiality interpretation. A case in point is the instance of the governed partitive, but there is no doubt that partitivity denotes partiality or non-exhaustiveness when it occurs freely, i.e., with the e-verbs. It seems that it is exactly this semantic property of the true partitive subjects that underlies their syntactic behavior. The fact that the semantics of the partitive is considered to be a form of quantification is then not simply a matter of folktaxonomy. I thus agree with Hakulinen & Karlsson that partitive is form of quantification: it denotes non-delimited, non-exhaustive amounts or entities (1979:169). The nominative denotes delimited, exhaustive amounts or entities, and thus the it, too, would represent quantification. Siro expressed the difference between nominative and partitive subjects in terms of quantitatively definite and indefinite species, which are expressed by the nominative and partitive, respectively, and whose semantics Siro (1964:51) sees in the same way as given right above.
The traditional view is that the subject can be in partitive only if it is a non-count or a plural count noun. At the same time, however, the following example is time taken to illustrate e-clauses; the subject is a singular count noun in the partitive:

34. Venettä näkyy saaren takaa.
    boat-PAR is-seen island-GEN behind
    (Part of) the boat shows behind the island.

It seems, however, that clauses which have verbs of sensory perception, like näkyy 'to be seen', kuulua 'to be heard' and tuntua 'to be felt', are different from the e-clauses. Consider the following additional examples:

35. Naapurihuoneesta kuului laulua.
    neighbor-room-ELA was-heard-3sg singing-PAR
    Singing could be heard from the adjacent room.

36. Huoneessa tuntui vielä kaasun hajua.
    room-INE was-felt-3sg still gas-GEN smell-PAR
    Smell of gas could still be felt in the room.

The meaning of these verbs is different from that of the e-verbs. They have a reflexive-transitive flavor, and their allowing singular count nouns in the partitive is a natural consequence of their meaning. Also, these sentences are not about existence, state or movement of the subject referent. Thus, if we consider clauses with sensory perception verbs to belong to a distinct clause type, then we can maintain that the partitive subject in e-clauses can only be a non-count or a plural count noun.

3.3. The Syntactic Framework

I follow Fillmore (1985), Fillmore et al. (1988), and Zwicky (1987, 1988) and presuppose a model of syntax that is strictly static and monostratal. No derivation of any kind is involved but syntax provides us with a rather large set of constructions. Each construction corresponds to a rule which is realized by a which a relatively small set of formal concomitants. Because the formal concomitants come from a relatively small, shared pool, the same formal concomitant may be shared by several distinct rules. Zwicky illustrates this with the 'English laxing' and the German Umlaut (1988) which appear in many distinct rules. Anderson (to appear) shows the same in Icelandic morphology. We will see in the example here, too, that the same formal concomitants participate in several distinct rules; this will be especially striking when we consider the constructions involved in word order. In addition to the formal side of the constructions, each of them is associated with a unique semantic and/or pragmatic value. Thus, syntactic constructions are like Saussure's linguistic signs: they have both the significant and the signifié.
Variation in constituent order in Finnish is generally not semantically significant, i.e., Finnish has free word order. There are clauses whose word order must be stipulated because it is not completely free, and because in these the order encodes an idiosyncratic meaning; we will see examples of these below. But many, if not most, clause types do have free constituent order, and the e-clause is among these. I thus propose to define the e-clause only in terms of its immediate constituency. Later on I will consider variation in constituent order, and propose that each word order alternant belongs to a particular construction which has a specific default pragmatic and semantic value. The essential point is, that the functions of word order cut across all clause types, and do not belong to any particular one. Therefore word order and clause types are treated independently.

Fillmore (1987:3) suggests that in syntax we have a large portion of constructions which are idioms ranging from completely frozen to partially fixed forms. In addition to these we have constructions which have more or less free internal and external syntax, i.e., they involve a generalization and can be generated by a general rule. It may be that even this latter group is not that free, after all, since verbs impose strict constraints on their arguments. This is especially apparent in the present case where sentences are assumed to have a flat structure (see below). This means that the freedom that a VP introduces is lost, and the substance is much more constrained. The various kinds of idioms, of course, must be listed separately in the grammar, and what each list contains, depends on the nature of the idiom. The constructions to be discussed below exemplify both "free" and idiomatic constructions.

I assume, in the absence of compelling evidence to the contrary, that the structure of Finnish sentences is flat, i.e., there is no VP. All the traditional syntactic tests for VP-hood fail (Hakulinen & Karlsson 1979:225-229; Vilkuna 1987). Also, a structure with a VP would not contribute anything to the pragmatic functions of the clauses, nor, of course, to their grammatical relations (Karttunen, 1986:30-1).

Finite verbs in Finnish generally agree with their subject in person and number. Thus the subjects will be marked for these features and whenever they are present, the verb inherits them. If no such feature is present, the default for the finite verb is to take the third person singular form. This happens not just with the partitive subject (be the partitive lexically governed or not), but typically also when the subject is in genitive, and when there is no subject, like with the weather verbs (sataa 'it rains').
3.4. The Constellation of E-clauses

In this section I will use both syntax and semantics as evidence for splitting the traditional e-clause into a rule-constellation. A rule constellation is a "...formal category ...[of]...a set of distinct uncollapsible rules united by one or more properties of form" (Janda & Joseph 1987:5); shared meaning/function is also essential. I will be looking at both the internal syntax of the e-clause, i.e., its internal structure, and its external syntax, i.e., how it combines with other constructions. I will establish several constructions which are distinct from each other, and from all other constructions even though they may share some characteristics with other clauses. As noted above, it is inevitable that clause types share formal properties, but they can, nevertheless, be unique. This sharing of characteristics is the result of the fact that several constructions use the same formal concomitants. But they use them in different combination, and consequently each construction is distinct. Sharing of meaning and/or pragmatic value, and formal concomitants establish relatedness of the rules within the constellation.

I will begin by considering the internal syntax of the e-clauses. I will first compare e-clauses which have a partitive subject (ex-par) with those with a nominative subject (ex-nom). I will later also consider possessive constructions, which are formally identical to e-clauses. Vilkuna's manifestation clause (1987) will be seen as distinct but related construction.

One of the traditional distinctive characteristics of e-clauses is that they take BOTH partitive AND nominative subjects (cf. the sensory perception clauses above). This difference in the subject case is a major justification for splitting up the e-clause into at least two distinct constructions. But these two subjects also have a different distribution which supports the division. Consider the following examples:

37. Lapse, uivat, children-NOM swim-3pl
The children swim.

38. *Lapsia, ui, children-PAR swim-3sg

39. Lapse, uivat, järvelssä, children-NOM swim-3pl lake-INE
The children swim/are swimming in the lake.

40. Lapsia, ui, järvelssä, children-PAR swim-3sg lake-INE
There are children swimming in the lake.
41. Lapset uivat eilen/ hyvin.
    children-NOM swam-3pl yesterday well
    The children swam yesterday/well.

42. *Lapsia ui eilen/ hyvin.
    children-PAR swam-3sg yesterday/well

43. Lapsia ui eilen järveessä.
    children-PAR swam-3sg lake-INE
    The children/some children swam yesterday
    in the lake.

The partitive subject does not occur alone with the
verb without being elliptic (as also Vilkuna notes, 1987)
or part of a special register like newspaper headlines.
Nor does it occur with time or manner adverbs without the
location (42) while the nominative subject has no such
restrictions (41). The following examples have been
offered as existential (Vähämäki 1984).

44. Ihmisiä kuoli.
    people-PAR died-3sg
    People died.

45. Lentokoneita tuhoutui.
    air-planes-PAR got-destroyed-3sg
    Air planes got destroyed.

These are, however, typical newspaper headlines, not
ordinary spoken utterances. It is well known that
headlines have their own rules, rules which can be totally
absent from other registers. The same goes for poetry;
poetic conventions appear perfectly normal when encountered
in poems, but when removed from this domain into everyday
conversations, they make the language sound stilted and
unnatural. Therefore we would not even imagine dealing
with poetic and non-poetic language in the same grammar.
The same reasoning applies to newspaper headlines—they
belong to another system. The following clause with a
quantified subject sounds somewhat better than (44) and
(45), but it is, nevertheless, elliptic:

46. Useita lentokoneita tuhoutui.
    several-PAR air-planes-PAR got-destroyed-3sg
    Several air planes got destroyed.

The partitive subject does not necessarily require a
location but quantifiers are also fine. But these belong
to another clause type, which Hakulinen and Karlsson
(1979:98) call a quantifier clause:

47. Ihmisiä tuhansittain.
    people-PAR died by-thousands
    People died by the thousands.
48. Poikia oli kolme.
boys-PAR was three-NOM
There were three boys.

These clauses above are different from the existentials in that they have a quantifier adverbial which, of course, semantically makes them different from those with a location adverbial. Also, the type of (47) and (48) does not express existence or state or movement in any sense, which is a requirement for the existential clauses. One syntactic difference is the neutral word order which for quantifier clauses is the one given here; the clauses with the location and partitive subject have the subject neutrally at the end.

Another fact that separates ex-par from ex-noms is that the verb in ex-par is invariably third person singular, regardless of the number of the subject, while in ex-noms the verb agrees with the subject in both number and person:

49. Pihalla oli/ *olivat autoja.
yard-ADE was-3sg were-3sg cars-PAR
There were cars on the yard.

50. Autot olivat pihalla.
cars-NOM were-3pl yard-ADE
The cars were on the yard.

Also, as already noted, ex-par cannot take certain manner adverbs while ex-noms accept them. These adverbs seem to have in their semantic structure a feature distributive and/or volitional. Some examples of these are those mentioned already above: mielettyni 'with pleasure', hitaasti 'slowly', and vastahakoisesti 'grudgingly'.

51. Lapset uivat mielettyni.
children-NOM swim-3pl with-pleasure
The children swim with pleasure.

52. *Lapsia ui mielettyni/hitaasti/vastahakoisesti.
children-PAR

53. Lapset uivat mielettyni järvesi.
children-NOM swim-3pl with pleasure lake-INE
The children like to swim in the lake.

54. *Lapsia ui mielettyni järvesi.
children-PAR swim-3sg with pleasure lake-INE

Since these adverbs co-occur with nominative subjects in otherwise identical sentences, the incompatibility cannot be between the semantic features of the verb and the adverb, but rather there seems to be a semantic clash between the non-exhaustive referent of the partitive subject and the distributive/volitional manner adverbs.
We have now discussed the internal syntax of the ex-par and ex-nom, but they are also different in terms of their external syntax. When ex-nom is embedded as a complement of certain verbs, the subject case is genitive while the subject of ex-par remains partitive; the embedded verb is non-finite but it is the same for both subjects:

55. Hevoset juoksevat niittyllä.
    horses-NOM run-3pl meadow-ADE
    The horses run on the meadow.

56. Anna nääki hevosten juoksevan niittyllä.
    Anna-NOM saw horses-GEN run-partic-GEN meadow-ADE
    Anna saw the horses running on the meadow.

57. *Anna nääki hevoset juoksevat/juoksevan niittyllä.
    horses-NOM run-3pl run-partic-GEN

58. Hevosia juoksee niittyllä.
    horses-PAR run-3sg meadow-ADE
    Horses are running in the MEADOW.

59. Anna nääki hevosia juoksevan niittyllä.
    Anna-NOM saw horses-PAR run-partic-GEN meadow-ADE
    Anna saw horses running on the meadow.

Thus, the nominative and partitive subjects behave differently also in their external syntax: the partitive occurs in the above embeddings while the nominative does not. Vähämäki (1984:20) suggests that in e-clauses the nominative subject does not 'genitivize' but the examples he gives are not e-clauses. The following examples of his involve a possessive (60) and (61).

60. Linnassa on valkoiset ovet.
    castle-INE is white-pl-NOM doors-NOM
    The castle has white doors.
    (Vähämäki's incorrect translation: There are white doors in the castle)

61. Liisa luuli linnassa olevan
    Liisa-NOM believed-3sg castle-INE be-partic-GEN
    valkoiset ovet.
    white-pl-NOM doors-NOM
    Liisa thought the castle to have white doors.

    white-pl-GEN doors-GEN

If we have a true e-clause complement above, the genitive is considerably better than the nominative:
63. Minä uskoin pihalla juosseen
    1-NOM believed-lsg yard-ADE run-partic(past)-GEN
    HEVOSEN.
    horse-GEN

    I believed that there had been a HORSE running in
    the yard.

64. *Minä uskoin pihalla juosseen hevonen.
    horse-NOM

Thus, the embedding and main clause correspondence between
nominative and genitive subjects holds for ex-noms but not
for the ex-pars.

Another difference between nominative and partitive
subjects is their behavior under negation. The nominative
of affirmative clauses corresponds to a partitive in
negated clauses, and thus the partitive/nominative
difference appears to be neutralized in negated clauses.
This correspondence is often proposed to be the same as
found for objects: an object within the scope of negation
is in partitive when otherwise it is OBJ/GEN, OBJ/NOM, or
OBJ/ACC. However, this correspondence is obligatory for
objects but not for nominative e-subjects. Consider the
following:

65. Noora sī omennaa omenan.
    Nora-NOM ate-3sg apple-OBJ/PAR apple-OBJ/GEN
    Nora was eating an apple/ate an apple.

66. Noora ei syönyt omennaa/*omenan.
    Nora-NOM not-3sg eat-past
    Nora didn’t eat/wasn’t eating an apple.

Whatever the constituent order of (66) is, the object is
always in partitive. In e-clauses, however, the subject
may, in fact, be either in nominative or partitive under
negation:

67. Pihalla ei ole autoa/ AUTO
    yard-ADE not-3sg be-pres car-PAR car-NOM
    On the yard there is no car/not a car.

The above two subject case alternatives remain even when
the constituents are scrambled. Thus, the partitive
subject is always the same, regardless of whether the
clause is negated or not, but the nominative subject may
alternate with a partitive subject in a negated clause,
depending largely on pragmatic matters.

The meaning of the verbs in e-clauses corresponds
closely to the meaning of the locative case system;
existence, becoming, perishing, position, movement and
change; there may also be an aspectual restriction so that
accomplishment verbs do not occur in e-clauses (Carlson
1979:41). Carlson does not give any examples of the
restricted verbs and thus I am unable to comment on them here. I will follow the traditional terminology involving existence, state and movement.

The semantics of the ex-noms and ex-par are the same: they express the existence in some fashion of some entity with respect to some location. The essential semantic difference between ex-par and ex-nom lies in the nature of the entity located. In ex-nom it is a quantitatively definite, exhaustive entity or amount while in ex-par it is a quantitatively indefinite, non-exhaustive entity or amount.

3.5. The Rules for the E-clauses

The basic split among the e-clauses is that done on the basis of the subject case (ex-par and ex-nom). Further on, ex-par is divided again into two depending on the verb: one group has intransitive (ex-par1) and the other bi-intransitive verbs (ex-par2). Clauses which have an intransitive verb (as opposed to bi-intransitive) and a nominative subject are NOT considered existential because they do not require the location, as we saw above; they are just like any other intransitive clauses. These clauses may, however, be homonymous with ex-noms if they also have the location adverbial. Clauses which have nominative subjects and bi-intransitive verbs are parallel to ex-par2, and do form an e-construction, ex-nom2.

I will use unification formalism in the rules below. Shieber notes that, in general, unification formalisms require of grammar formalisms the following (1986:6-7):

- surface-based: providing a direct characterization of the actual surface order of string elements in a sentence,

- informational: associating with the strings information from some informational domain. (These elements are characterizable as associations between features and values taken from some well-defined, possibly structured set)

- inductive: defining the association of strings and informational elements recursively, with new pairings being derived by merging substrings according to prescribed string-combining operations, and merging the associated informational elements according to prescribed information-combining operations, and

- declarative: defining the association between strings and informational elements in terms of what associations are permissible, not how they are computed.

The syntactic framework adopted entails that we consider all and only the surface forms of sentences, and this must be reflected in the formalism, too. An important
part of the constructions is their formal concomitants, which are for the most part complexes of syntactic features; whether we initially associate this information with rules in general or with particular strings is immaterial. There are constructions at many different levels within syntax: at the levels of phrases, clauses and sentences. Word order may be considered a distinct domain. We have to be able to combine the information, say, at phrase level with the clause level, and we need rules specifying how the informational elements are to be combined, and also what associations are permitted.

The particular form of the notation employed here is modified from Kay (1986). An important notion of his functional unification grammars is that functional aspects are on a par with the formal side. For example, in the rules for the e-clauses the syntactic roles the constituents play are significant (i.e., subject and location). Kay also notes the rules need not be maximally parsimonious; this means that the added detail in the description only narrows down "the class of objects described" (ibid. 126). The location constituent below includes NPs in locative cases, adverbs of location or adpositional phrases -- a rather specific set of constituents. This set could be reduced to a simple feature cluster which would make the rule more general, but I will not attempt it here because it is not necessary, nor is it important for the present purposes. Note that the term 'locative' denotes specific case suffixes, and 'location' is a syntactic role.

Each rule will consist of a set of descriptors, which consist of pairs of attributes and values. A typical descriptor can be seen in Subject, which itself is an attribute: its value consists of two attribute-value pairs. The Sequence for all the e-clauses will consist of sets of freely permuting constituents, but in the rules later on we will have sequences with somewhat constrained or completely rigid ordering. There are other descriptors that would be needed in order to give a full account of each construction, like tense, aspect and voice, but since they are not directly relevant to the present work, they are left out. Each constituent is assigned meaning in addition to its syntax, and the meaning of the whole construction is given last.

Before giving the rule constellation, I will sketch the proposed e-clauses with all their proposed characteristics together for easy comparison:
Table 1. The central syntactic notions of the existential clauses

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>SUBJ-CASE</th>
<th>AGREEMENT</th>
<th>VERB</th>
</tr>
</thead>
<tbody>
<tr>
<td>EX-PAR1:</td>
<td>X</td>
<td>PAR</td>
<td>NO</td>
</tr>
<tr>
<td>EX-PAR2:</td>
<td>X</td>
<td>PAR</td>
<td>NO</td>
</tr>
<tr>
<td>EX-NOM2:</td>
<td>X</td>
<td>NOM</td>
<td>YES</td>
</tr>
</tbody>
</table>

The requirement that e-clauses take both nominative and partitive subjects applies, of course, to the verb. All verbs take nominative subjects (if any), but basically only e-verbs take also partitive subjects. This implication is expressed by the subcategorization value 'existential' on the verb. All e-clauses have a location adverbial, but in two of them the verb requires it, the bi-intransitive verbs. The verb agreement is found only with nominative subjects; otherwise the verb assumes the default form, 3rd singular. All e-clauses have free constituent order, i.e., every permutation is allowed.

I assume that finite verbs in Finnish are those which serve as the locus of person and number marking but not of case marking (see Nevis 1985 for discussion). This allows us to distinguish between verbs and non-verbs, on the one hand, and finite and nonfinite verbs, on the other. Nonfinite verbs in Finnish may take case, and they may also have possessive person/number agreement markers, which are, though, morphologically distinct from the subject person/number agreement markers. I illustrate these differences with the following:

60. Minun ol-le-ssa-ni Kanadassa,  
    my be-2ndInf-INE-my Canada-INE  
    puhu-i-n ranska-a.  
    speak-past-lsg French-PAR  
    When I was in Canada, I spoke French.

In this example we have both a finite and a nonfinite verb. The finite verb puhu-i-n contains the lsg-subject person/number agreement marker. This form cannot take a case marker (69) or a possessive suffix (70), while we see both of these in the nonfinite ol-le-ssa-ni in (68).

69. *Minä puhu-i-n-a ranska-a.  
    I-NOM speak-past-my-PAR French-PAR

70. *Minä puhu-i-ni...  
    I-NOM speak-past-poss1sg...
Next we will see the rules for each e-clause in the constellation. The asterisk (*) implies disjunction.

3.5.1 Ex-parl

This construction has a partitive subject with no verb agreement. The specification that the partitive subject can only be a non-count or plural count noun will be done elsewhere in the grammar, because this applies to all the subjects in these constructions, not just to one rule.

Ex-parl

Constituent set: subject, verb, location
Category: S
Sequence: {subject, verb, location}
Subject: [syntax: [cat: NP
   case: partitive]]
   [semantics: non-exhaustive,
   nondelimited entity or amount=X]
Location: [syntax: [cat: NP
   case: locative] *
   [cat: Adverb * AdpP]]
   [semantics: in, on, into, onto,
   from or out of some location = Y]
Verb: Head: [syntax: [cat: V
   case: Ø
   subcat: intransitive
   existential]]
   [semantics: {coming into * being in
   * going out of existence; state *
   movement; change in state} =Z]
Semantics: [existence of X in fashion Z in
relation to Y]

3.5.2 Ex-par2

This type is identical with ex-parl except for the subcategorization of the verb. The following illustrate this verb type:

71. Helsingissä asuu ulkomaalaisia.
    Helsinki-INE lives foreigners-PAR
    In Helsinki there live foreigners.

72. *Asuu ulkomaalaisia/ulkomaalaisia asuu.

73. *Markus asuu.
    Markus-NOM live-3sg

The verb is intransitive but it requires a location complement, hence it is bi-intransitive. The semantics of these verbs seems to be limited to movement and state.
Another verb like this is *olla 'to be' in one of its senses.

74. Pellolla on vettå.
    field-ADE is water-PAR
    There is water on the field.

75. *Vesi/ vettå on.
    water-NOM water-PAR be-3sg

Ex-par2
Constituent set: subject, verb, location
Category: S
Sequence: \{subject, verb, location\}
Subject: [syntax: [cat: NP
        case: partitive]]
        [semantics: non-exhaustive,
        non-delimited entity or amount=X]
Location: [syntax: [cat: NP
        case: locative] *
        [cat: Adverb * AdpP]]
        [semantics: in, on, into, onto,
        from or out of some location=Y]
Verb: Head: [syntax: [cat: V
        case: Ø
        subcat: bi-intransitive
        existential]
        [semantics: \{movement * state\}=Z]
Semantics: [movement or state of X in
        fashion with respect to Y]

3.5.3. Ex-nom2

With the difference in the subject case comes also a
difference in the agreement properties - now the verb
agrees with the subject in person and number. As stated
above, a clause with a nominative subject and existential
intransitive verb is not distinguishable from other
intransitive clauses. They may or may not have a location
adverbial, and the adverbs that were incompatible with the
partitive subjects co-occur with these subjects. Because
of this indistinguishability from other intransitive
clauses, I will not posit any existential version
corresponding to ex-par1. However, those clauses with a
bi-intransitive verb do form their distinct group
corresponding to ex-par2.
3.6. Possessives

It seems that the expression of possession also forms a minor constellation of its own. Possession with an animate possessor is expressed by a locative (adessive) adverbial + copula + an NP (Hakulinen & Karlsson 1979:97,209; Vilkuna 1987); see (76). An adessive adverbial with an inanimate referent is not a possessor but a location (77), if pragmatically acceptable at all (78).

76. Ukilla on vene.
    grandpa-ADE is boat-NOM
    Grandpa has a boat.

77. Pihalla on auto,
    yard-ADE is car-NOM
    There is a car on the yard.

78. *Veneelly on moottori.
    boat-ADE is engine-NOM

Compare (78) with (79) below. (79) illustrates the possessive construction with an inanimate possessor of inalienable possession; this will be discussed presently.
79. Veneessä on moottori.
    boat-INE is engine-NOM
    The boat has an engine.

The possessive construction is semantically different from formally identical constructions which express a state of the 'possessor':

80. Minulla on kylmä.
    I-ADE is cold-NOM
    I am cold.

81. Vauvalla on kuumetta.
    baby-ADE is fever-PAR
    The baby is running fever.

82. Jussilla on hilsettyä.
    Jussi-ADE is dandruff-PAR
    John has dandruff.

These are formally identical with the e-clauses, too, but differ from them semantically, and also in that the 'subject' is not necessarily a subject, as in (80), and probably also in the other two, though I take no stand here as to what the final constituent in these examples is in terms of syntactic roles. Note that the boundary between all these types is very fine. The following is an existential clause where the adessive NP is a location, while in (82) it was more like an undergoer.

83. Jussin olkapäällä on hilsettyä.
    Jussi-GEN shoulders-ADE is dandruff-PAR
    There is dandruff on John's shoulders (or more idiomatically, John has dandruff on his shoulders).

The possessive constructions look very much like the e-clauses but a major difference is to be found, not just in the meaning, but in their syntax as well. The constituents of the possessive construction can not be arranged freely. If we switch the constituents in (76) around, we have a different meaning:

84. Vene on ukillalla.
    boat-NOM is grandpa-ADE
    The boat is with grandpa's.

What are the other potential orders that the possessives can have without semantic differences like those between (76) and (84)? The following are the logically possible ones:

a. Loc-V-NP  d. NP-V-Loc
b. NP-Loc-V  e. Loc-NP-V

The neutral possessive order is (a); (c) also has the possessive reading while (d) and (f) have only the location reading. (b) and (c) are ambiguous between the two
readings. The generalization seems to be that to get the possessive reading, the possessor (=Loc) cannot be last. In the possessive construction the copula is invariably in the third person singular form, while in the location reading the verb agrees with the nominative subject.

3.6.1. Poss1

I will next give the rule for the possessive construction with the animate possessor.

Poss1

Constituent set: possessor, copula, possessed
Cat:
Sequence: {possessor, copula, possessed}*
Possessor: [syntax: [cat: NP case: adessive]]
              [semantics: animate possessor]
Possessed: [syntax: [cat: NP case: {nominative *
                     partitive *
                     accusative**}]
              [semantics: possessed]
Copula: Head: [syntax: [cat: V case: Ø]]
Semantics: [the possessor has possession of the possessed]

*Constraint 1: The possessor must precede either the copula or the possessed.

**Constraint 2: The accusative case in the possessed can only co-occur with a personal pronoun

The case marking of the possessed depends on the nature of the entity itself. It is nominative when the possessed is a delimited, exhaustive entity but partitive when it is a non-delimited and non-exhaustive entity. But whether an entity is treated by the speaker as exhaustive or non-exhaustive can also be a pragmatic matter. An inherently non-exhaustive entity (like water) can be referred to by a nominative noun if the existence of the entity has been established already in the context. Consider the following possessive expressions and note the case of the possessed:

84. Markuksella on lentokone/ *lentokonetta.
Markus-ADE is air plane-NOM air plane-PAR
Markus has an air plane.

85. Marjukalla on mehua.
Marjukka-ADE is juice-PAR
Marjukka has juice.
86. Marjukalla on mehu.
   Marjukka-ADE is juice-NOM
   Marjukka has the juice.

In (84) the possessed is a delimited, exhaustive entity, and therefore only the nominative is applicable. In (85) the possessor has some of the juice while in (86) she has all the juice in the universe of discourse. I emphasize this because Vähämäki (1984:27) considers both (85) and (86) to have only indefinite, partial readings. He takes the view that we have only two choices: all the juice in the world and parts of it. According to him, only generic sentences would give the reading 'all the juice'. I disagree with this because we may establish in the discourse entities which are subsequently treated as 'all of the entity' even if they factually form only part of the global referent. Vähämäki's examples

87. Pihalla on poikia.
   yard-ADE is boys-PAR
   There are boys in the yard.

88. Pojat ovat pihalla.
   boys-NOM be-3pl yard-ADE
   The boys are on the yard.

are interpreted by him as (87) referring to an indefinite part of all the boys in the world and (88) as referring to a definite part of all the boys in the world (ibid.). I believe, however, that it is not the case that all the boys in the world are relevant, but only those in the context. Thus, (88) has the reading all the boys (with respect to the universe of discourse).

3.6.2. Poss2

The other construction involving possession uses the inessive case for the possessor, which is inanimate, as was discussed already; the possession is inalienable and reflects a part/whole relation (Hakulinen & Karlsson 1979:97; Vilkuna 1987). The following illustrate the type:

89. Perheessa on kolme lasta.
   family-INE is three-NOM child-PAR
   The family has three children.

90. Veneessa on purjeet.
   boat-INE is sails-NOM
   The boat has sails.

91. Kouluessa on uudet opetusvälineet.
   school-INE is new-pl-NOM teaching aids-NOM
   The school has new teaching aids.

If the constituent order is reversed, the meaning changes and the verb agrees with the subject.
92. Purjeet ovat veneessä.
sails-NOM be-3pl boat-INE
The sails are in the boat.

93. Uudet opetusvälineet ovat koulussa.
new-pl-NOM teaching aids-NOM be-3pl school-INE
The new teaching aids are at school.

These two examples have only the existential reading.

Note that if the final NP of (90) and (91) is in the partitive, they again have the existential reading:

94. Veneessä on purjeitä.
boat-INE is sails-PAR
There are sails in the boat.

95. Koulussa on uusia opetusvälineitä.
school-INE is new-pl-PAR teaching aids-PAR.
At school there are new teaching aids.

The possessive reading thus seems to require the possessed in nominative, which, as we know, denotes a delimited, exhaustive entity. This is not surprising if this construction indeed is used to express part/whole relations and thus inalienable possession. If an entity X is an inalienable part of entity Y, then all of X is part Y; hence X must be delimited and exhaustive, and thus it is denoted by a nominative. Guyla Décsy (p.c.) has suggested to me that the nominative in the inalienable possession is in fact an absolute universal.

Following is the rule for this second possessive construction. The constituent order restriction is the same as above. The possessed can only be in third person.

**Poss2**

| Constituent set: | possessor, copula, possessed |
| Cat: | S |
| Sequence: | {possessor, copula, possessed}* |
| Possessor: | [syntax: [cat: NP case: inessive]] [semantics: inanimate possessor] |
| Possessed: | [syntax: [cat: NP case: nominative person: 3]] [semantics: possessed] |
| Copula: Head: | [syntax: [cat: V case: Ø]] |
| Semantics: | [possessor has inalienable possession of the possessed] |
*Constraint: The possessor must precede either the copula or the NP.

3.7. Other Putative Possessives

It has been suggested that there may be other possessive constructions with possessor cases other than the above adessive and inessive (Hakulinen & Karlsson 1979:97; Vilkuna 1987). The following illustrate these:

96. Ruusuun puhkesi kukat.
    rose-ILL opened-3sg flowers-NOM
    The rose started to bloom.

97. Sisarelleni syntyi vauva.
    sister-ALL-my was-born baby-NOM
    My sister had a baby.

98. Puusta katkesi oksa.
    tree-ELA broke branch-NOM
    A branch broke off the tree.

It is not quite clear to me that these should be called possessive. They do have syntactic similarities with possessives, like third person singular verb form, which is shared by existentials, too. The clauses in (96)-(98) may also exhibit part/whole relations which, however, is not always obvious (like in 97) but even this is not sufficient for claiming that they express possession.

One clear difference from possessives is that there is no comparable meaning difference when the constituents are reordered:

99. Kukat puhkesi(vat) RUUSUUN.
    flowers-NOM opened-3sg(3pl) rose-ILL
    It was the ROSE that began to blossom.

100. Vauva syntyi SISARELLENI.
    baby-NOM was-born sister-ALL-my
    It was my SISTER that had a baby.

101. Oksa katkesi PUUSTA.
    branch-NOM broke tree-ELA
    It was from the tree that the branch broke off.

The above are different pragmatic variants of the sentences with the opposite order in (96)-(98); they have the same meaning while with the possessives there was a contrast between the possessive and existential readings depending on the constituent order. The examples in (96)-(97) exemplify a high collocational frequency of these lexical items which is due to the semantics of the individual words, and not because the constructions have a non-compositional constructional meaning requiring constituents of this type. Note, that if the verb in (99) is in singular, it is so because the subject noun is used as a collective noun, not because the clause is existential.
There are other nouns like this, too, that seem to violate the expectations for the number agreement. One of them is *sakset* 'scissors': also the Finnish form, like the English, is formally plural but it does not trigger number-agreement in the verb. But these facts are idiosyncrasies of these nouns, and do not pertain to the clause types under discussion in any way.

3.8. The Manifestation Clause

It was suggested above that partitive subjects do not occur alone with the verb. There is, however, a whole set of clauses which have just a partitive subject and a verb. Vilkuna (1987) calls these the manifestation pattern, m-clause here. She suggests that these form a subtype of e-clauses since the verb is an e-verb and the subject may be in partitive. If a location is added to a m-clause, it becomes an e-clause. Vilkuna also suggests that these clauses have an implied time reference. This type is illustrated by the examples below (from Vilkuna). As such, I find them belonging to literary genres only, but if they were to begin with some time expression like *sitten* 'then' they would be normal conversational sentences.

102. Heräsi useita kysymyksiä.
awoke-3sg several-PAR questions-PAR
Several questions arose.

103. Löytyi uusi alkuaine.
was-found-3sg new-NOM element-NOM
A new element was discovered.

104. Puhkesi kapina.
erupted-3sg rebellion-NOM
A rebellion broke out.

105. Ilmeni ongelmia.
appeared-3sg problems-PAR
(Some) problems emerged.

These are different from the e-clauses in not only that no location is present, but also that the constituent order must be rigidly constrained. If we change the order, there is a radical meaning change, so much so, that the meanings appear to be absurd:

106. *Useita kysymyksia heräsi.
several-PAR questions-PAR awoke
*Several questions woke up.

107. ??Uusi alkuaine löytyi.
new-NOM element-NOM was-found-3sg
??The new element was found.

rebellion-NOM burst/erupted-3sg
*The rebellion burst.
109. ??Ongelmia ilmeni.
    problems-PAR appeared-3sg
    ??Problems appeared.

The m-clause has a strong idiomatic flavor. The verb is used metaphorically and the subjects seem to refer to an indefinite entity. The idiomatic reading is lost when the order is changed: the position of the subject is now such that it gets a definite interpretation (see next chapter) which seems to collide with its inherent indefiniteness. The verbs belong to a proper subset of existential verbs having the meaning 'become existent' (Vilkuna 1987). A verb not having the above semantics is olla 'to be' which also patterns like the above:

110. Oli kerran prinssessa.
    was-3sg once princess-NOM
    Once upon a time there was a princess.

This is a typical beginning of a fairy tale. This, however, may be taken to be a more or less frozen idiom unlike the m-clauses due to its conventional context of occurrence, and also because the verb 'to be' is an all-purpose verb more than any other verb.

As a separate construction, the m-clause can be described by the following rule; note that the order of the verb and the subject is now fixed:

**M-clause**

Constituent set: verb, subject  
Cat: S  
Sequence: <verb, subject>

Verb: Head:  
[syntax: [cat: V  
    case: Ø  
    subcat: existential]]  
[semantics: become existent]

Subject:  
[syntax: [cat: NP]]  
[semantics: abstract or concrete entity]

Semantics: [an entity becomes existent]

3.9. On Rules and Constellations

The proposal made in this chapter that the e-clause is actually a rule constellation touches on the issue of the status of rules as categories in linguistic theory. The whole approach taken here, i.e., that of syntax based on constructions, makes the assumption that rules corresponding to constructions are primitives at a higher, 'molecular' level (Zwicky 1987). Janda and Joseph (1986, 1987) more specifically propose that rules are complex relational categories, on a par with features and feature-
defined categories: they are used to express generalizations just like features are.

It is thus clear that since rules express significant generalizations, and what is important here, since they may also describe pairings of form and meaning, they are linguistic categories. But what are rule constellations? What is their status? Are they categories, too? Janda and Joseph (1987:5) suggest that rule constellations "are... a formal category, in that they are sets of distinct uncollapsible rules united by one or more properties of form". It appears to me that we have to emphasize the sharing of meaning and/or function by the rules in one constellation, which Janda and Joseph implicitly do in their analysis.

If we go by formal criteria only, all the constructions mentioned in this chapter would belong to one constellation: they all share some formal concomitants. It was in fact this formal similarity between different clause types that led Hakulinen and Karlsson (1979) and Vilkuna (1988) to the conclusion that the e-clause is not unique. But I isolated the e-clause from the possessive and other constellations essentially for semantic reasons, for it did not significantly differ from other constellations in its internal syntax.

Also, a basic assumption in the present framework is that all the formal concomitants come from a relatively small shared pool (Zwicky 1987). If so, there would be no end to constellations because all rules use these same formal concomitants; at some level each rule would have to belong to many constellations. Overlapping in itself is not objectionable, but it would seem that the notion loses some of its significance if go only by the form.

It thus seems that semantic and/or pragmatic unity is crucially required. My proposed e-constellation shares formal properties, but the central unifying factor is the meaning, which also distinguishes it from the other, formally similar rules and constellations. I would thus conclude by agreeing that constellations do play a role grammars, but they must be united by more than just form. They have to have the same meaning or function.

3.10. Summary

I have considered several constructions in Finnish which have traditionally been seen as one construction—the e-clause. If we consider the differences in the subject case, the distribution of the two subjects, the subject-verb agreement, the subcategorization of the verbs, and differences under embedding and negation, we have evidence that the traditional e-clause is a rule constellation, not just one rule. The unifying characteristics of the constellation are the requirement of a location adverbial, an existential verb, and the constructional meaning. The Finnish possessives also form
a minor constellation of their own, and we might argue that the manifestation pattern, even if not part of the e-constellation proper, is at least an asteroid close to it. Since the effects of free constituent order transcend individual clause types, the potential pragmatic values of the e-clauses are not a property of this clause alone. For that reason the e-clauses were examined exclusively in terms of their immediate constituency. Word order will be discussed in the next chapter.
CHAPTER IV
SEQUENCE CONSTRUCTIONS

4. Introduction

The expression ‘free word order’ means that the constituents involved occur in all their logically possible permutations, not that these alternants are in free variation, as was implied by earlier claims in the transformational framework that scrambling is ‘stylistic’. Finnish word order (WO) or constituent order has not been studied thoroughly (Hakulinen 1983). One factor that has kept the global role of WO obscured is that WO has typically been included in the characterization of individual clause types. This is redundant since it misses the fact WO has the same pragmatic and semantic effects in any clause type having free constituent order. I am therefore proposing to treat WO independently of individual clause types. In the previous chapter I suggested that the e-clause is best characterized as a set of rules, where each is rule identified solely in terms of its immediate constituency. In this chapter I will discuss WO in e-clauses, but my claims are intended to cover any clause type in Finnish that has free WO. If a clause has restricted WO, the occurring orders will have the pragmatic values suggested here, but they may also encode something additional like, e.g., possession.

I will posit three Sequence Constructions on the basis of WO. Two of them are the overall defaults (SVX and XVS), which are associated with existential or no presuppositions; these are the constructions which address the S-topic. Two orders (XSV and SXV) have ‘contrast’, and two (VSX and VXS) ‘emphasis’ as their pragmatic value by default; these four address the D-topic. The central formal concomitants of the Sequence Constructions are the order of the constituents, and the accentual pattern. Thus, it is essentially the same formal concomitants that are involved in the these three distinct rules but in different combination in each. In addition to the above pragmatic values, WO in Finnish also encodes the definiteness of the NPs so that constituents in certain positions are interpreted as definite or indefinite by default.
The phonetic terminology used in this chapter is highly impressionistic but in chapter V I will define the terms more precisely. As above, I will use 'word order' and 'constituent order' interchangeably to denote the order of constituents in a sentence. As before, I exclude newspaper headlines, literary and other non-spoken genres from consideration and try to find the essence of word order from simple sentences which are plausible candidates for spontaneous utterances.

In the following discussion three different uses of the traditional term 'definiteness' will be involved. To avoid confusion, I will employ different names for each type as follows. One is definiteness as identifiability or locatability of the referent in the universe of discourse (Hawkins 1978; Karttunen 1968, 1971; Heim 1983; Foley & Van Valin 1985). It was this type that was discussed above in the distinction between definiteness and Old/NewInfo. It was also noted in this connection that if a constituent has a definite or indefinite article, it does not necessarily mean that its referent itself is definite or indefinite, respectively. The two sides of this kind of definiteness will be called IdentDef for definite as identifiable or locatable in the universe of discourse, and IdentIndef for indefinite as not so identifiable or locatable. I will use English examples to illustrate these notions:

1. The house (IdentDef) was on the hill.
2. There was a house (IdentIndef) on the hill.

The second kind of definiteness, which in Finnish linguistics is called the 'notive definiteness', is equivalent to OldInfo and NewInfo:

3. The girl (OldInfo) ate the apple (NewInfo).
4. It was the apple (NewInfo) that the girl ate (OldInfo).

The third group is called 'quantitative definiteness' in the Fennistic tradition; this has to do with the boundedness of the referent. This is expressed in the case system by the nominative which denotes exhaustive, delimited amounts or entities, and the partitive which denotes non-exhaustive, non-delimited amounts or entities (Hakulinen & Karlsson 1979:169). I will call these QuantDef and QuantIndef. In English quantitative definiteness can be illustrated as follows:

5. The boys (QuantIndef ~ nominative) were running.
6. Some of the boys (QuantIndef ~ partitive) were running.

There are thus three different notions behind the single term definiteness. One has to do with whether or not the entities involved are uniquely identifiable in the domain of discourse (IdentDef and IdentIndef), one with whether or not the denotation of the constituent can be expected to be reconstructible at this point of the
discourse (Old/NewInfo), and one with boundedness of the referent (QuantDef and QuantIndef). All of these are involved with WO in Finnish.

4.1. Earlier Views

4.1.1. Species

The traditional view is that constituent order in clauses expresses 'species', but this claim has been studied only with respect to two of the possible six orders, namely SVX and XVS. 'Species' is a superordinate term, originally used for various kinds of definiteness or determinedness of the subject: definite, indefinite and generic (Ikola 1964:13). This division follows the understanding of definiteness, which is associated with articles. Later on, Siro (1964:51) added two other categories: the notive and the quantitative species.

He suggests that the notive species is realized by word order; the initial subject has the definite notive species (NotDef) and the final the indefinite notive species (NotInd). These are discourse notions such that NotDef is equivalent to OldInfo, and NotInd to NewInfo. Siro (ibid.) uses the terms 'known/unknown referent in the discourse' but I believe my interpretation is essentially faithful to his original intention. My interpretation is supported by his additional comment (ibid.) that the notive species is the same as the psychological subject/predicate, a comment that emphasizes the nonreferential discourse function of this distinction. Enkvist as well understands the notive species to express OldInfo and NewInfo (1978:78).

Siro suggests later, though, that (sentence) stress may be the major factor in the expression of notive species, which highlights its discoursal nature and which, in fact, makes his distinction very different from the article-based definiteness. He compares the following examples:

7. Tuvassa on ukko.
   cottage-INE is man-NOM.
   There is a man in the cottage.

8. UKKO on tuvassa.
   man-NOM is cottage-INE
   It's the MAN who is in the cottage.

In both (7) and (8) ukko 'man' is the psychological predicate, or the carrier of NewInfo, and therefore Siro suggests that it is not word order, after all, that is relevant to notive species but (sentence) stress. However, there is a major difference between (7) and (8). In the first the entity denoted by ukko is IdentIndef (some ukko) while in the second the ukko is IdentDef (the ukko). Additionally, the first sentence carries only existential presuppositions while the second carries propositional presuppositions. In (8) we already know that someone is in the cottage but maybe misheard and thought it was someone
other than ukko. In (7) it is simply asserted that in the cottage there is an ukko, but no propositional presuppositions are involved. (7) is an unmarked instance, while (8) is marked. It thus seems that the notive species, when it is expressed by word order, pertains only to unmarked utterances with the SVX and XVS orders. When the utterance is marked, with or without marked word order, the primary sentence stress is the main means of expressing the notive indefiniteness or NewInfo.

The quantitative species has already been mentioned earlier. QuantDef is expressed by the nominative case; such a noun denotes a delimited, exhaustive entity. QuantIndef is expressed by the partitive and it denotes a non-delimited, non-exhaustive amount or entity (Hakulinen & Karlsson 1979:169). This distinction, as the IdentDef and IdentIndef, too, is most clearly manifest in the subject function in Finnish, and less so, e.g., in the object, where the nominative/partitive distinction also expresses aspect. The following table illustrates how the two kinds of species, notive and quantitative, interact in the unmarked word orders (SVX and XVS):

Table 2: The 'species' of the subject in Finnish

<table>
<thead>
<tr>
<th></th>
<th>DEFINITE</th>
<th>NOTIVE</th>
<th>INDEFINITE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(OldInfo)</td>
<td></td>
<td>(NewInfo)</td>
</tr>
<tr>
<td>DEFINITE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QUANTITATIVE</td>
<td>(a)</td>
<td>initial</td>
<td>final</td>
</tr>
<tr>
<td></td>
<td></td>
<td>nominative</td>
<td>nominative</td>
</tr>
<tr>
<td>INDEFINITE</td>
<td>(c)</td>
<td>initial</td>
<td>final</td>
</tr>
<tr>
<td></td>
<td></td>
<td>partitive</td>
<td>partitive</td>
</tr>
</tbody>
</table>

One fact to note on the table is that the subject may simultaneously have opposite values for these two kinds of definiteness. In other words, the subject may be notively definite but quantitatively indefinite (c), or notively indefinite and quantitatively definite (b). This has been disputed by Vähämäki for option (c) (1976:152; 1984:29), and perhaps (b), too (1984:29), but, I believe, erroneously. Vähämäki understands notive definiteness to be a property of referents: he suggests that notively definite species conveys "the exact identity of the referents" (ibid.) and that "[N]otive determinness pertains to the identity of a referent set" (1984:300). Vähämäki thus takes the notive species to be the same as identifiability, but even so, his view is too broad: it takes definiteness to be an absolute notion, not one related to the relevant discourse world only, which seems to be more realistic (Hawkins 1978; Karttunen 1968,1971; Heim 1983; Foley & Van Valin 1985). This is also not what Siro intended; for him notive species was a discourse
notion, not a matter of strict referential identity. As noted above, Siro compared native species with psychological subject/predicate, which accentuates the non-referential status of this distinction.

Consider the following example, which has a partitive subject (QuantIndef) in the initial position (NotDef=OldInfo) illustrating the "non-existent" combination of the two kinds of definiteness. Vähämäki does not deny the occurrence of the initial partitive subject but only that (9) illustrates the definiteness combination proposed in (c) of table (2).

9. Teidän kouluun poikia on käänyt 
your-2pl-GEN school-GEN boys-PAR is visited-partic
Boys from your school have been coming

tablä tupakoimassa.
here smoking-INE
over here to smoke.

Vähämäki (ibid.) suggests that the speaker should know the exact identity, and thus exact quantity, of the subject referent because it is notively definite, but at the same time he cannot know it because the partitive denotes a non-exhaustive entity, and therefore there is a contradiction. But if notive definiteness is a discourse notion, as I take it to be, there is no problem here. The speaker assumes that the addressee can uniquely reconstruct the subject denotation with respect to the universe of discourse, and this can be done without knowing the exact identity or amount of the boys. To reconstruct the subject denotation, it is sufficient to locate a set with the given characteristics in the addressee's discourse model. Example (9), which is a well-known sentence in the literature on Finnish in this context, is actually not a good example of this incompatibility, because the modifiers of the subject clearly delimit the entity to a proper subset of a well-defined set, and thus the subject referent is rather well identifiable even if the exact quantity is left open. What we have to do is look at comparable sentences with unmodified partitive subjects, and we will do this presently.

The problem with the initial partitive subject is thus not one which has to do with the native species, or Old/NewInfo, but one between the QuantDefiniteness and identifiability. It was suggested in chapter I that, in spite of their obvious similarities, Old/NewInfo and identifiability are two distinct notions. Both are established on the basis of previous discourse, shared background, and/or the context in a particular discourse world, but Old/NewInfo is a property of any constituent while identifiability is a property of referents only. The real question thus is whether a constituent denoting a non-exhaustive entity can at the same time have the IdentDef interpretation, and this is the problem Vähämäki should be addressing.
The initial constituent, as we will see in detail later, is interpreted as IdentDef unless otherwise specified. In (9), this reading is applicable because the modifiers unambiguously identify the entity in question, and therefore (9) is not problematic. However, (10) below illustrates the unmodified initial partitive. The subject is expected to have the IdentDef interpretation because of its sentential position. But its case is partitive, and thus it denotes a non-exhaustive entity whose limits are not specified. Since these sentences do occur as utterances, we have to consider (10) as it would be actually uttered in discourse. The accentual pattern proposed below is one possibility, not the only one, but significantly, it is not the neutral contour.

10. Poikia tupakoi PIHALLA.
    boys-PAR smoke-3sg yard-ADE
    There are boys smoking in the YARD.

What I am suggesting is that the intonation in (10) overrides the default reading. (10) carries propositional presuppositions; the subject and the verb both carry OldInfo, and it is presupposed that there are boys smoking somewhere. Thus the subject entity is locatable in the already established discourse model, and therefore it is IdentDef.

Võõmõiki himself proposes that the initial position is marked for the partitive subject, though without saying precisely what he means by this; he does not state how or why the initial partitive subject is marked (1988). Also Hoover assumes that clauses with an initial partitive subject are marked, and that they have a marked intonation pattern, but she does not fully explain why this should be so (1984:78, 121). Additionally, all the traditional treatments of the e-clauses suggest that the prototypical e-clause has a final partitive subject. Why this should be so, is not made clear, even though at the same time it is recognized that word order is free, and thus, logically speaking, any order could be the prototypical case.

I agree that clauses with an initial (unmodified) partitive subject are marked, and if this is so, it means that these sentences carry propositional presuppositions. With the accent pattern in (10), the presupposition is that there are boys smoking somewhere, and thus the existence of the subject entity is already established in the discourse. Consequently, it is IdentDef. Thus, the initial position is not interpreted absolutely as denoting an IdentDef entity; this interpretation is applicable only if it is not overridden by any other facts in the utterance, like intonation or demonstratives, etc. My prediction thus would be that e-clauses which have an initial partitive subject contain some marker that overrides the default interpretation. This marker can be intonational or morpholexical; this also entails that we do not expect to
have the neutral intonation with these sorts of utterances because this would cue the default reading.

Vähämaa's interpretation of the native species as IdentDef causes some confusion, but once we observe that Old and NewInfo, and identifiability are distinct, we see that he is pointing at the right direction: QuantIndef and IdentDef do not coincide; we will see this in detail below. However, his claim that partitivity has nothing to do with partiality or non-exhaustiveness in Finnish (1984:26) is wrong. Hakulinen and Karlsson (1979:169) are right in suggesting that the semantics of the partitive is a form of quantification; we only have to keep distinct free and governed partitive subjects. If we fail to do this, we lose sight of the difference between poikia 'some boys' and pojat 'the boys' which difference interacts with not just word order, but with verb agreement, the constituent set of the construction, and probably with intonation, too. Also, if it were the case, that partitivity has nothing to do with quantification, then it would not be clear what the problem with definiteness and partitivity would be.

Another view to the functions of word order in e-clauses is Siro's naming and classifying functions. The initial subject is said to denote a known entity about which something is said and now the subject has a naming function. The final subject classifies the referent as belonging to the class of entities denoted by the subject (1964:52). These two resemble the IdentDef and IdentIndef distinction, respectively. Siro further suggests that since proper nouns inherently name some specific entity, they typically appear at the beginning of the sentence. When they are at the end, they tend to acquire a flavor of classification (ibid.). He gives the following example with a possessive construction to illustrate the latter point:

11. Aideillä olis lapsen mukanaan. mothers-ADE was-3sg children-NOM with-pos3pl
   The mothers had their children with them.

A:lla oli Petri, B:llä oli Maija.
A-ADE was-3sg Petri B-ade was-3sg Maija-NOM
A had Petri, B had Maija.

In the second sentence the final proper nouns, according to Siro, classify their referents.

Ikola makes a similar but more pragmatically oriented point: he suggests that the initial subject presupposes the existence of the subject referent while the final one asserts its existence (1964:28). Ikola's picture is consistent with the definitions of Old/NewInfo and IdentDef/Indef adopted here; this distinction also matches the idea that the S-topic carries OldInfo. These views of Siro and Ikola, of course, do not apply to all initial and final subjects but only to those in unmarked word orders; these authors, as most others, say nothing about non-initial or non-final subjects.
In conclusion, the traditional view is that word order in e-clauses expresses native species, which is here interpreted as Old/NewInfo. But word order expresses IdentDefiniteness of the entities in the domain of discourse, too. The naming and classifying roles approximate this definiteness. The presupposing or asserting the existence of the subject referent resemble Old/NewInfo, and the S-topic. If the default reading in the neutral word order indeed is such that the initial constituent is interpreted as IdentDef, then we can explain why this sentence position is marked for partitive subjects: partitive nouns denote non-exhaustive, non-delimited entities or amounts. This lack of clear boundaries is in conflict with IdentDefiniteness. For a constituent to be IdentDef, we presume that the entity denoted can be uniquely located in the domain of discourse, while the lack boundaries precludes this identification.

4.1.2. A Positional Grid

Vilkuna approaches Finnish constituent order from the angle of a positional grid where each position is given a uniform discourse-related interpretation (1987, ch. 1):

12. (P2) P1 V, X

where P2 and P1 are positions for one constituent each, V represents the finite verb and X, any other constituent, and the order of X and V is free.

P1 is preferably filled by the topic or theme, and P2 by contrast. I do not go here into her conception of topic and contrast but only note that she follows Carlson (1983) in defining them. She emphasizes that the discourse functions topic and contrast are primary and the positional grid secondary, but that the topic follows the contrast, when both are present. Vilkuna gives the following examples (ch. 1):

13. P2 P1 V, X
   (contrast) (topic)  (content field)

a. Mitä sinä teet?
   what you-NOM do-2sg
   What are you doing?

b. Pesen astioita.
   wash-1sg dishes.
   I wash dishes.

c. Oli hauska tavata.
   was-3sg nice meet-inf
   Nice meeting you!
d. Sitten Mikkoa rupesi harmittamaan.
then Mikko-PAR began-3sg be-annoyed-inf
Then Mikko started to get annoyed.

e. Ei tuulla ketään ole.
not-3sg her anybody is
There is not anybody here!

f. Minä siitä ennenkin olen päätännyt.
I-NOM it-ELA before-too have-1sg decided
It's me who has decided on it before, too.

g. Oli siitä voinut nytkin 1m hteä.
be-cond-cli filler been-able now-too leave-inf
Well, one could have left now, too.

I see at least three problems with this approach, which I will call the 'P1-topic view'. First, it is not quite clear how the decisions about the topic and contrast are made with the help of this grid. It seems from the examples above that it is a mechanical procedure, but if so, then it assigns the pragmatic functions in a totally non-standard way: what the contrast in (13d) and (13g) in particular is, is not clear at all: the initial constituents are in no obvious way contrasted with anything. And if the assignment of the functions by the grid is not automatic, then we apparently must know the pragmatic value of each utterance already before we apply the grid, and thus the grid itself becomes meaningless.

Another problem, recognized by Vilkuna herself, is posed by adverbs and fillers which may cause the sentence to have more than two constituents before the verb. What is the contrast and topic then, especially since V and X are unordered? If there are more than two constituents before the finite verb, there is no principled way of deciding when a constituent is the topic and when it is the contrast, or when it is possibly neither of them.

A related problem is that of the finite verb. In (13b) there is no P2 or P1 because the clause begins with a finite verb which goes to the V-position. The same apparently applies for (13c). But let us look at (13e): the grid positions imply that the verb of negation is not considered to be the finite verb since it occupies P2 and not the V-position. As long as the negative is not considered to be the finite verb in the clause, (13e) is not a problem. Nevis (1986:49) agrees with this assignment – for him the tensed complement is the finite part. But Kay and Karttunen (1985) consider the verb of negation to be the finite verb and thus the issue is not clear.

This may appear to be a minor point, but consider the following example, which is extremely similar to (13g):
          be-cond-lsg filler been-able I-NOM-too leave-inf
But I could have left as well.

The first constituent is unambiguously the finite verb, and thus it should fill the finite verb position. If so, then the pragmatic similarity between (14) and (13g) is completely obscured. This is my third problem with the grid. If the finite verb in (14) occupies the V-position, then (14) and, say, (13b) should be assigned the same discourse value since neither of them has a contrast or topic. But clearly there is a difference: (14) carries obvious propositional presuppositions while (13b) is a neutral assertion. In their uses, (14) and (13b) are distinct, and we should like to capture this difference in the description of the constituent order. The following, simpler sentence illustrates this point even better:

15. PESEN miny!
          wash-lsg I-NOM
I AM washing!

By the grid, again, (15) and (13b) are equivalent, but pragmatically this is not the case at all. There is a dramatic difference between them, which is overlooked by the grid.

Vilkuna does note that the freedom of ordering in the content field (i.e., V, X) is actually true only when P2 is filled (with some exceptions). The content field ordering is given by what she calls 'discourse-bound rules'. It is not clear why there need to be two different ordering principles, one for the beginning and one for the end of the sentence. She suggests, further, that the schema given in (12) could actually be subdivided as follows:

16a. P1 V X (neutral sentence)
       b. P2 P1 V, X (contrastive sentence)
       c. V X (imperative)

This subdivision shows that we need more than one schema.

The three patterns in (16) resemble my conception of constituent order. I propose that there are distinct constructions with distinct discourse values, but these cannot be described in terms of a single overall pattern, because this would ignore too much important detail of each alternant. Also, we should keep, not just clause types, but also mood (cf. 'imperative' above) separate from the pragmatic functions of word order. If we assume that syntax provides us with a set of unique Sequence Constructions, we can better account for both the individuality and the shared generalizations involved in the variation of constituent order.
4.1.3. Overall Variation

Kay and Karttunen (1985), too, assume a contrast position such that if there is contrast, it is initial. But in fact they allow elements in that position which are not contrasted with anything, like Vilkuna. The following is their example:

17. Eilen Esa luki kirjan.
yesterday Esa-NOM read-3sg book-OBJ/GEN
Yesterday Esa read a book.

The authors suggest that eilen appears in the contrast position without being emphatic. But this means that this constituent is not in contrast with anything. The final kirjan may, and probably does, carry a slight emphasis but without any contrastive implication. It thus seems that to assume a position for contrast without regard to constituent order in the clause is not a fruitful approach. On what grounds is eilen in a contrast position in (17) if it is not contrasted with anything? It is not the case that any initial position is a contrast position. If we want to maintain that the initial position is reserved for the contrastive function, then we also have to specify the constituent orders for which this applies.

Kay and Karttunen discuss the overall variation in word order using as an example a transitive clause with its six permutations. One permutation is excluded because it sounds strange. The excluded example is the following:

18. ?Luki kirjan Esa.
read-3sg book-OBJ/GEN Esa-NOM

There was no need to leave out this alternant on the basis of word order because this order is perfectly fine with some other lexical content:

19. LUKI sen ESA.
read-3sg it-OBJ/GEN Esa-NOM
At least Esa read it.

20. PURI Liisa hyttyinen.
bit-3sg Liisa-OBJ/PAR mosquito-NOM
Liisa was indeed bitten by a mosquito.

I will return later to why (18) does not sound so good, but this sentence is interesting because it shows that in spite of the freedom in word order, some variants are clearly judged to be unacceptable. My proposal is that this unacceptability is due to a mismatch between the semantics or pragmatics of a particular word order and some property associated with the lexical items in the clause.

Both Blum (1981) and Kay and Karttunen (1985) came up with similar conclusions about the basic function of word order. The two important notions expressed are topic and focus, topic being the NP which immediately precedes the
finite verb, except in verb initial sentences, where it immediately follows the verb. The proposed relation between topic and contrast is such that if the first constituent carries the contrast/emphasis, the second is the topic. Even though I assume now that marked utterances do not have a S-topic in any interesting sense, I wish to comment on this view on topic. This claim that the post-emphatic constituent is the topic is largely the same made by Vilkuna above, the Pl-topic view. Consider Vilkuna’s (13g) again:

13g. Olisihan sità voinut nytkin láh htew.
be-cond-cli filler been-able now-too leave-inf
Well, one could have left now, too.

The second constituent is a filler which does not contribute anything substantial to the propositional content of the sentence, but it is, nevertheless, considered to be the topic if we assume a strictly positional approach. But even in Vilkuna’s own framework the second constituent would not be the topic if we consider that she defined topic as Carlson (1983) did. Pragmatically it makes not much sense to claim that the filler in (13g) is in any way related to the aboutness of the whole clause. The point I am making is that if we want to give the pragmatic characterization of aboutness to the (S-)topic, the relevant constituent must at least have some kind of referent.

It is in addition proposed by Kay and Karttunen, and by Blum, that the verb-initial orders do not express contrast in same sense as the verb-final orders do. The verb-initial orders emphasize the whole proposition while the verb-final ones have contrast on one constituent only. Phonologically, contrast and emphasis are realized in the same way, by the same accent, as we will see, but the pragmatic scope of the prominence is different depending on word order.

According to Kay and Karttunen, and Blum, final NPs introduce new discourse referents. I agree with this as long as we keep distinct newness of the referents and NewInfo. The final constituent in (21) below carries NewInfo and introduces a new discourse referent. Compare this with a sentence that has an initial contrastive prominence: the first constituent in (22) carries NewInfo but the entity denoted is already in the domain of the discourse and thus is not absolutely new in the discourse world.

yard-ADE is-3sg car-NOM
There is a car on the yard.

22. AUTO pihalla on.
car-NOM yard-ADE is-3sg
It is a CAR that is on the yard.
Kay and Karttunen (1985) and Karttunen (1986:14) suggest that the order of the verbal elements is fixed even if they need not be contiguous:

Negative > Tensed verb > Main verb

This is true in the neutral and many other instances but need not be so always; i.e., the order is not totally fixed:

23. NÂHNYT sitÅi ei ollut KUKAAN.
    seen it-PAR not-3sg had nobody
    Seen had it been by nobody (but it existed).

24. EI sitÅi NÂHNYT ollut kukaan.
    not-3sg it-PAR seen had nobody
    It had not been SEEN by anybody (although it had been heard).

Thus, the fixity of order does not apply to the main verb in relation to the other verbal elements but apparently only to the negative and the tensed verb. I will not have anything more to say about the verbs but to point out that they are subject to the needs of discourse about the same way as the nominal constituents are.

Kay and Karttunen, and Blum compared the different permutations of various clauses, and proposed specific pragmatic functions for the word order variants. I will follow these same ideas below and propose a set of constructions whose principal formal concomitant is word order. As for the S-topic, I do not accept that it is to be identified automatically as the post-contrastive constituent; in fact, it is not a relevant notion in marked utterances at all, as noted in chapter II.

4.2. The Pragmatic Values of Word Order

I will now discuss constituent order in e-clauses in greater detail; other clause types will be mentioned to show that the patterns are not confined to a single clause type. We can individuate three Sequence Constructions on the basis of word order and pragmatic function. Once we know the word order and its pragmatic value, we can predict the accent pattern of that construction, and consequently accents are seen to be formal concomitants of these constructions. The default accent patterns and pragmatic values may be overridden by morpholexical means and intonation, but the basic idea is that we have a set of general defaults, which may be cancelled by more specific settings. I will be looking at main clauses only, but what is observed in these, can in some cases be extended to subordinate clauses, too. Many of the differences between the two lie in the pragmatic differences between them. For instance, it is much harder to express contrast on a subordinate clause than on a main clause simply because the subordinate clause has no independent role in the text. In this section I will be looking at the pragmatic values of
word order; next I will focus on the interaction of
definiteness with word order.

The occurring word orders of e-clauses, and any clauses
with free word order, are those below. My account, as
stated above, is intended to encompass all clause types
with free word order.

25. a. SVX - Sorsia ui lammessa.
    ducks-PAR swim pond-INE
b. SXV - Sorsia lammessa ui.
c. XSV - Lammessa sorsia ui.
d. XVS - Lammessa ui sorsia.
e. VXS - Ui sorsia lammessa.
f. VXS - Ui lammessa sorsia.

These alternants can be divided into two groups (26A) and
(26B), which have overlapping discourse functions. The
first set horizontally (26a) is verb-medial, the second
(26b) verb-final, and the last (26c) is verb-initial.

26. A  B
    a. SVX  XVS  unmarked
    b. XSV  SXV  contrastive
    c. VSX  VXS  emphatic

SVX and XVS (26a) are the neutral orders. The non-neutral
orders which are verb-final (26b) have contrast on the
first constituent. The verb-initial variants (26c) express
an emphatic affirmation of the whole proposition, it being
implied that the truth of the proposition has been
challenged. I will begin my discussion of the pragmatic
values of word order with the unmarked orders, then take up
the contrastive orders, and finish with the emphatic
orders.

4.2.1. The Unmarked Orders

The unmarked orders are those that can be used to
answer questions like 'what happened?' or 'what's up?'.
The first constituent is the S-topic which carries OldInfo,
the rest carrying NewInfo non-contrastively. The final
constituent in these orders may introduce new discourse
entities; this is what the traditional views suggested was
the pragmatic value of the prototypical e-clause, which has
XVS order. The final position is sometimes called the
"unmarked information focus" (Karlsson 1982:170), but as
noted, all constituents but the S-topic in this order carry
NewInfo. These orders have the neutral intonation by
default, and with this they carry existential or no
presuppositions. Also, it is the neutral orders which
express the IdentDef distinction, as we will see below.
Consider the following examples.

27. Anna nukkui sohvalla.
    Anna-NOM slept-3sg sofa-ADE
    Anna was sleeping on the sofa.
28. Sohvalla nukkui vauva.
    sofa-ADE slept-3sg baby-NOM
    There was a baby sleeping on the sofa.

The unmarked orders may have focus on any constituent
(29)-(31), in which case they are echoic, partial
repetitions:

29. ANNA nukkui sohvalla
    Anna-NOM slept-3sg sofa-INE
    ANNA slept on the sofa.

30. Anna NUKKUI sohvalla.
    Anna SLEPT on the sofa.

31. Anna nukkui SOHVALLA.
    Anna slept on the SOFA.

These examples all have the so called 'narrow focus', while
with the neutral intonation these orders have the so called
'broad focus' (Ladd 1978). In Finnish the final accented
constituent in the neutral contour is in no way
phonologically distinguishable from the preceding accented
constituents (Livonen 1987:50). It is partly because of
this indistinguishability, and the fact that no special
prominence is present in the neutral contour that I reject
the term 'broad focus' as misleading. Rather, in the
neutral contour there is no focus. We will also see later,
that the verb-initial orders have a focus which is 'broad'
in the sense that it has the whole proposition in its scope
even though its special prominence is phonetically
'narrow'.

4.2.2. The Contrastive Orders

The SXV and XSV orders encode a contrast whose scope is
the first constituent, and this constituent also carries a
special phonetic prominence. The entity denoted is already
implicitly or explicitly present in the discourse model,
but it is introduced at this point as NewInfo, and not a
new discourse entity. The rest of the sentence carries
OldInfo. The following illustrate the contrastive orders:

32. LAMMESSA sorsa ui.
    pond-INE duck-NOM swam-3sg
    It was in the pond that the duck was swimming.

33. SORSAA lamnessa ui.
    duck-NOM pond-INE swam-3sg
    It was a/the duck that swam in the pond.

To make explicit what it means to say that the first
constituent is contrasted with something in the universe of
discourse, we can imagine that the above are responses to
something like the following, respectively:
32'. The duck swam in the river.
33'. There was a seagull swimming in the pond.

An important formal concomitant of this order is its initial focus. Enkvist (1978:75) suggests that this variant cannot have the main sentence stress as indicated in (34) because of the thematic structure of the word order; (36) and (37) are perfectly normal. If there is a S-topic in these orders, as has been proposed in earlier literature, then it is expected to carry OldInfo, and the prediction is that it indeed cannot take the main prominence as in (34):

34. *Omenan KALLE sti.
    apple-OBJ/GEN Kalle ate-3sg
35. *Omenan Kalle SOI.
36. OMENAN Kalle sti.
    It was an apple that Kalle ate.
37. OMENAN Kalle SOI...
    An/the APPLE Kalle ATE (but he did
    something else with something else.

But, in fact, it is not just the putative S-topic that is ineligible for the main sentence stress; the verb cannot take it either as we see in (35). The reason for the unacceptability of (34) and (35) is that special prominence, which signals NewInfo, is on a constituent which is structurally 'designed' to carry OldInfo. Whether the subject here is the S-topic or not is not relevant; what is relevant is that this order encodes a pragmatic value where all the constituents after the contrast carry OldInfo. The double contrast of (37) is acceptable, too, but in this case the clause is part of a larger construction and invites a 'but' after it. In other words, this pattern is not independent like (36). The example above is a transitive clause but the same pattern is found in e-clauses:

38. *Lammessa SORSIA ui.
    pond-INE ducks-PAR swim-3sg
39. LAMMESSA sorsia ui.
    pond-INE ducks-PAR swim-3sg
    It's in the pond that there are ducks swimming.
40. *Lammessa sorsia UI.

Thus, no other constituent in this order can take the focus except the contrasted initial constituent.

If we add adverbs to the above sentences, their position may change the basic pragmatics of this order. As long as the verb remains final, though, the contrast and the accent are initial. But if the adverb is final, it takes the prominence, but it is introduced non-
contrastively as NewInfo, and there is no contrast in the utterance at all. In the example below we have a time adverb in the middle of the sentence and the contrast remains initial:

41. NADINE eilen låhteessa ui.
    Nadine-NOM yesterday spring-INE swam
    It was Nadine who swam in the spring yesterday.

42. LÅHTEESSÅ Nadine eilen ui.
    spring-INE Nadine-NOM yesterday swam
    It was in the spring that Nadine swam yesterday.

In the initial position the adverb carries the contrast, but only if the order itself is contrastive. Consider (44) and (46): they have the same prominence pattern as above, unlike their neutral order partners (43) and (45). The first constituents in the neutral order examples (which are marked utterances because the adverbs are not in their default position) are in no way contrastive while in the other two there is a clear contrast.

43. Eilen sorsa ui lammessa.
    yesterday duck-NOM swim-3sg pond-INE
    Yesterday the duck swam in the pond.

44. EILEN sorsa lammessa ui.
    yesterday duck-NOM pond-INE swim-3sg
    It was yesterday that the duck swam in the pond.

45. Eilen lammessa ui sorsa.
    yesterday pond-INE swim-3sg duck-NOM
    Yesterday there was a duck swimming in the pond.

46. EILEN lammessa sorsia ui.
    yesterday pond-INE ducks-PAR swim-3sg
    It was yesterday that there were ducks swimming
    in the pond.

If we add the adverb to the end of the contrastive orders, they lose their default contrast. (47) and (48) below introduce eilen as carrying non-contrastive NewInfo, the rest carrying OldInfo, and the adverb is phonetically prominent.

47. Lammessa sorsa ui EILEN.
    pond-INE duck-PAR swim-3sg yesterday.
    In the pond the duck swam YESTERDAY.

48. Sorsia lammessa ui EILEN.
    ducks-PAR pond-INE swim-3sg yesterday
    There were ducks swimming in the pond YESTERDAY.

The clauses in (47) and (48) are no more verb-final, which apparently has to do with the change in the pragmatic value and the prominence pattern.
These examples have shown that two constituent orders, both verb-final, encode a particular pragmatic value, which we may call 'contrast'. These orders are associated with a specific intonational pattern, where there is focus on the initial, contrasted constituent; this contour is the default as long as the verb remains final. Sentence material added after the verb changes the pragmatic value, and we have another construction at hand.

Negation also illustrates how the addition of material creates a new construction. Under initial negation the above constraint on the locus of prominence does not hold; now the emphasis can be in the middle of the clause, depending on the scope of the negation.

49. Ei JUSSI lamessa uinut.
    not-3sg Jussi-NOM pond-INE swim-past
    It was not John that swam in the pond.

50. Ei Jussi LAMMESSA uinut.
    not-3sg Jussi-NOM pond-INE swim-past
    It was not in the pond that Jussi swam.

But these utterances do not have contrast: they simply deny that Jussi did the presumed swimming, or that the presumed swimming took place in the pond, respectively. It may be understood in the first sentence that someone did swim in the pond, and in the second that Jussi did swim somewhere, though not in the pond, but these presuppositions are not necessary. We can respond to the above by saying 'in fact, nobody swam in the pond' or 'in fact, Jussi didn't swim at all', respectively. Negated sentences have other differences from the affirmatives, too, and thus clearly form another construction, which seems to have its own, idiosyncratic behavior. Regardless of other constructions, the default for XSV and SXV is to have initial prominence and contrastive NewInfo reading on that constituent, the rest of the utterance carrying OldInfo.

4.2.3. The Emphatic Orders

The emphatic orders, VSX and VXs, also have an initial focus by default. The question of whether the constituent right after the prominence is the S-topic or not has the same answer as that given above; it has no special status, it is not different from the rest of the OldInfo. The following illustrate the emphatic orders.

51. UI sorsa lamessa.
    swam-3sg duck-NOM pond-INE
    The duck DID swim in the pond.

52. UI lamessa sorsa.
    swam-3sg pond-INE duck-PAR
    In the pond there DID swim a duck.

The initial constituent does not have a contrastive reading the way the previous set had. These orders
emphatically assert the truth of the proposition expressed by the corresponding neutral order:

51'. Sorsa/ui lammessa
duck-NOM swam-3sg pond-INE
The duck swam in the pond.

52'. Lammessa ui sorsa.
pond-INE swam duck-PAR
There was a duck swimming in the pond.

The implicit context is that the addressee does not think it to be true that the duck swam in the pond in (51), and that there was a duck swimming in the pond in (52).

The final and the post-verbal constituent may be prominent, too, as long as the verb is prominent, too.

53. On PULLOSSA vettà.
is bottle-INE water-PAR
There IS water at least in the BOTTLE.

54. On pulossa VETTA.
is bottle-INE water-PAR
There is at least water in the bottle.

The context here is something like 'there is water nowhere' in (53) and 'there nothing in the bottle' in (54). These utterances, too, emphatically affirm the 'underlying' proposition but the different prominence pattern adds the meaning 'at least'. When the prominence is only on the verb, the meaning of this utterance is the same as that of the corresponding neutral order; no semantic content is added by the intonation. My suggestion thus is that the verb-initial orders with focus on the verb encode an emphatic affirmation of the proposition expressed by the corresponding unmarked orders. This order may have other accent patterns, too, but they modify the semantic content of the utterance. Because the initial prominence does not change the semantics, I take this to be the default.

Note the difference between the emphatic order (55) and the 'narrow focus' on the verb in the unmarked order (56), which was mentioned above:

55. NUKKUI Anna sohvalla.
slept-3sg Anna-NOM sofa-ADE
Anna DID sleep on the sofa (contrary to what you think).

56. Anna NUKKUI sohvalla.
Anna-NOM slept-3sg sofa-ADE
Anna SLEPT on the sofa (and didn't play).

If (56) has the neutral intonation, it simply asserts that Anna slept on the sofa, and the utterance has no propositional presuppositions attached to it, nor has it any focused constituent. The difference between the
neutral assertion and (56) involves a 'narrow focus' in (56) which is interpreted so that in (56) the content of the verb was unclear in the prior context. The difference between (55) and (56) is that in the former the focus has 'wider' scope, the whole proposition, while in (56) the focus is on one constituent only.

I proposed in this section that we can identify three pragmatic values for the various word orders. The verb-medial orders with their default intonation are unmarked, associated with existential or no presuppositions; the verb-final orders encode an initial contrast, and the verb-initial ones emphatically affirm the whole proposition; these are always associated with specific propositional presuppositions. If we add adverbials to the various alternants, each added constituent introduces several new word order variants. But as we saw above, we do not start to proliferate the number of different constructions for every added adverbial. Its sentence position determines whether another construction is created or not; only if the addition changes the pragmatic value, I consider it to instantiate another construction. It may not seem parsimonious to increase the number of constructions whenever the pragmatic value changes, but we must remember that the constructions proposed here apply across all clause types. This limits the number of distinct constructions. Thus, even though we have a relatively large number of different constructions, they do not get multiplied by the number of clause types, nor by the number of constituents alone.

I proposed above that each word order variant has a specific default accent pattern. As was pointed out in Chapter 1, defaults are rule choices while neutrality/markedness are pragmatic notions. Thus, when the contrastive orders have their default accent pattern, the resulting utterances are marked, because the intonation is the default for this particular order, not the overall default. Also, if an overall default word order is associated with an accent pattern other than its default, the resulting utterance is marked. In other words, there are defaults at many levels, the more specific one always overriding the more general one. Neutrality is independent of defaults in general, except that the overall unmarked utterances are the result of the pairing of the neutral word orders with the neutral intonation.

A comment is in order on the importance of the different permutations in Finnish. I have assumed that all of the orders are of equal importance, but this may be disputed. For instance, not all of the orders have the same frequency of occurrence. SXV is rare, at least in written language (Hakulinen, Karlsson & Vilkuna 1980:31). In speech I suspect, however, that it is not so uncommon. In any minor argument we would expect someone to claim:
57. KIRSI sen teki!
   Kirsi-NOM it-OBJ/GEN did-3sg
   It was Kirsi who did it!

But even if a particular order were less frequent than some other order, it can still be perfectly idiomatic and productive, with a specific pragmatic value. It may be that the pragmatic value an order encodes is such that the opportunity for its use arises relatively seldom but once it arises, the construction is readily available as the contextually most appropriate one. Frequency considerations thus are not truly revealing of the idiomacity and usefulness of particular word orders, especially if the counts are done on written language (cf. Givón). The defaults are probably the most frequent forms, but this does not mean that the non-defaults are less significant in any sense. Consequently, I go on assuming that each variant above is equally interesting and equally valid as an object of study.

4.3. Definiteness and Word Order

4.3.1. The Unmarked Orders

The lexical material in the alternants above was not the same for each variant, and this is not an accident. It is often noted that some particular word order is not acceptable, even though that clause type has free word order. For example, Kay and Karttunen excluded the following from consideration because it sounded strange to them:

18. ?Luki kirjan Esa.
   read-3sg book-OBJ/GEN Esa-NOM

My explanation for why a certain order with one lexical content is natural, but unnatural with another, is the following: there is a mismatch between the pragmatic value and/or semantics the particular sequence encodes and some property associated with the lexical items. For example, the neutral order for transitive clauses is SVO, but (58) below with the OVS order is the only neutral order for this transitive clause (Heinämäki 1976); the same with the neutral order (59) is not possible as an unmarked utterance.

58. Minua puri käärme.
   I-OBJ/PAR bit-3sg snake-NOM
   I was bitten by a snake.


Also the following are transitive clauses which are not neutral with SVO order; the starred examples are fine with some other contour than the neutral intonation:
60. Minnaa vaivaa anemia.
    Minna-OBJ/PAR bother-3sg anemia-NOM
    Minna has anemia.

61. *Anemia vaivaa Minnaa.

62. Hän tarinoitaan maustaa
    his stories-OBJ/PAR-poss season-3sg
    kirpeän huumori. (Vilkuna 1987)
    tart-NOM humor-NOM
    His stories are seasoned by tart humor.

63. *Kirpeän huumori maustaa hänen tarinoitaan.

Ex-nom’s usually have both of the neutral orders with
the neutral intonation, while the Ex-par’s neutrally have a
final subject. The following are Ex-nom’s whose only
neutral order, however, is SVX; Hakulinen (1983) gives
examples comparable to (67).

64. Aino asuu Lappeenrannassa.
    Aino-NOM live-3sg Lappeenranta-INE
    Aino lives in Lappeenranta.

65. *Lappeenrannassa asuu Aino.

66. Se juoksee pihalla.
    it-NOM run-3sg yard-ADE
    It runs on the yard.

67. *Pihalla juoksee se.

The following Ex-nom, however, can only take the opposite,
XVS-order:

68. Etiopiassa on nälknähätä.
    Ethiopia-INE is famine-NOM
    There is famine in Ethiopia.

69. *Nälknähätä on Etiopiassa.

In Blum (1981) I suggested that the above constraints
on the order have to do with the definiteness of the
subject. The following examples illustrate how word order
encodes definiteness:

70. Kissa nukkuu lattialla.
    cat-NOM sleep-3sg floor-ADE
    The cat sleeps on the floor.

71. Lattialla nukkuu kissa.
    floor-ADE sleep-3sg cat-NOM
    There is a cat sleeping on the floor.

The initial subject in (70) is interpreted as IdentDef and
the final subject in (71) is interpreted as IdentIndef.
Note, that (70) and (71) assert a different proposition because of the IdentDef difference in the subjects.

(70) and (71) illustrate why the odd-numbered examples between (58)-(69) are not acceptable. NPs in the final position are interpreted as IdentDef while pronouns and proper nouns are inherently IdentDef; thus (65) and (67) are not grammatical. Some abstract words like famine, anemia and humor are inherently IdentDef and thus occupy the final position by default. Thus, when the words for anemia in (61), humor in (63), and famine in (69) are initial, there is a clash between the positional definiteness and their inherent indefiniteness. In (58) the kährme is IdentDef pragmatically, so that the reverse order in (59) is not possible either. These default readings can be cancelled by morpholexical content and/or intonation. For example, if we individuate the snake in (59) as our pet, we make it IdentDef, and the SVO-order is fine with the neutral intonation:

72. Meidän kährme puri minua.
   our snake-NOM bit-3sg I-OBJ/PAR
   Our snake bit me.

The following illustrates how intonation can override the default reading:

73. Lappeenrannassa asuu AINO.
   Lappeenranta-INE live-3sg Aino-NOM
   (I repeat since you apparently didn’t hear)
   AINO lives in Lappeenranta.

Here the neutral word order has a marked intonation contour; the utterance presupposes that someone lives in Lappeenranta, but who it is, is unclear.

Vilkuna (1987:ch. 3) states that even though the final subjects often are indefinite, they need not be, and therefore position is not involved in definiteness. She gives the following example (the word-by-word translation of the first sentence is mine):

74. En uskalla katsoa kiven koloon,  
    not-1sg dare-inf look-inf rock-GEN hole-ILL
    I dare not look between the rocks,

a. siellä voi olla se kährme.
   there may be-inf that snake-NOM
   there can be that snake there.

b. siellä voi olla kährme.
   there may be-inf snake-NOM
   there can be a snake.

We may start by noting that the background sentence contains an example that bears on the issue at hand. The Finnish phrase kiven koloon literally means ‘into hole of rock’, i.e., definiteness is not determined at the phrasal
level. But this phrase in (74) should get the indefinite interpretation because of its sentence position, but Vilkuna translates it as IdentDef in English, probably because the import of her example resides elsewhere. But my claim is that the background sentence is pragmatically ill-formed because it translates into something like 'I do not dare to look into a whole in the rock because there might be a/the snake'. The example can be salvaged by adding a demonstrative to it and thus precluding the IdentIndef reading:

74'. ...katsoa tuon/ tuohon kiven koloon.
...look that-GEN that-ILL rock-GEN hole-ILL
(I dare not) look between those rocks.

The author's main point with the example is, of course, the comparison of (74a) and (74b). The difference is that in (74a) the final NP is interpreted as IdentDef because of the demonstrative se, while in (74b) it gets the default IdentIndef reading. The point is thus exactly the same as that with the background sentence. Therefore, word order in Finnish does encode the IdentDef reading for initial NPs and IdentIndef reading for final NPs unless otherwise indicated. As noted above, these readings are most transparent in the subject role. Objects in Finnish involve the expression of aspect, too, which obscures the definiteness tangent. Also, location adverbials typically pragmatically assume identifiability, which makes them, too, unlikely candidates for these definiteness readings. Encoding definiteness by word order is not unique to Finnish. For example, Huang (1987) has reported the same for Chinese existential sentences.

I have now discussed the default orders. The initial constituent is interpreted as IdentDef and the final as IdentIndef, unless otherwise indicated. Accordingly, constituents denoting inherently or pragmatically IdentDef entities go to the beginning and constituents denoting inherently or pragmatically IdentIndef entities go to the end by default. The overriding of the default readings can be done by demonstratives and other individuating morphemes, and/or intonation.

### 4.3.2. The Marked Orders

I will first discuss the contrastive orders, XSV and SXV, with respect to IdentDef and IdentIndef. In these the referent of the initial constituent is contrasted with some alternative(s) in the universe of the discourse. Consider the following:

75. **PUUSSA** orava istuu.
     tree-INE squirrel-NOM sit-3sg
     It's in the/a tree that the squirrel is sitting.

76. **ORAVA** puussa istuu.
     squirrel-NOM tree-INE sit-3sg
     It's a/the squirrel that sits in the tree.
The initial constituents are ambiguous between the IdentDef and the IdentIndef readings, the ambiguity being resolved by the context. The second constituent is IdentDef, i.e., its identifiability is already contextually established. These utterances carry clear propositional presuppositions: in (75) it is presupposed that the squirrel is sitting somewhere, and in (76) it is presupposed that something is sitting in the tree. All other constituents but the initial carry OldInfo.

Consider the following example where the IdentDef second constituent denotes famine, an entity which is IdentIndef:

77. ?ETIOPIASSA nählänhtə on.
    Ethiopia-INE famine-NOM is
    ?It is in Ethiopia where the famine is.

For (77) to be possible at all, nählänhtə must be anaphoric, but still it is odd. The oddness is due to the fact that nählänhtə in this sentence position is interpreted as IdentDef while it is inherently IdentIndef. If we add a demonstrative, the sentence becomes normal:

78. ETIOPIASSA se nählänhtə oli.
    Ethiopia-INE that-NOM famine-NOM was-3sg
    It’s in Ethiopia where that famine was.

The emphatic word orders, which begin with the verb, also interact with identifiability. The constituent after the verb is interpreted as IdentDef and the final as IdentIndef. These orders have the pragmatic function of emphatically affirming the truth of the proposition expressed by the corresponding default order. The correspondence between the neutral and the emphatic orders is as follows:

79a. marked VSX corresponds to neutral SVX
c. marked VXS corresponds to neutral XVS

In the neutral orders the initial and final positions are the defaults for IdentDef and IdentIndef interpretations, respectively. These relations are preserved in the verb-initial variants in the corresponding constituents; the first NP is IdentDef and the last IdentIndef by default.

80. UI lammessa sorsa.
    swim-3sg pond-ine duck-NOM
    There WAS a duck swimming in the pond.

81. UI sorsa lammessa.
    The duck DID swim in the pond.

Consider sentences with a proper noun subject:
82. ASUU Anna Turussa.
   *live-3sg Anna-NOM Turku-INE
   Anna DOES live in Turku.

83. *ASUU Turussa Anna.
   *There DOES live in Turku Anna.

(83) is not natural with no emphasis on the final Anna, because it would give the interpretation that Anna is IdentIndef. (84) below is the emphatic affirmation of (86), but (85) is ill-formed because it gives the IdentIndef reading to the famine, just as in the contrastive example above; (85) also does not make the same assertion as (86).

84. ON Etiopiassa nälänhätä.
   is Ethiopia-INE famine-NOM
   There IS indeed famine in Ethiopia.

85. *ON nälänhätä Etiopiassa.
   *The famine IS in Ethiopia.

86. Etiopiassa on nälänhätä.
   Ethiopia-INE is famine-INE
   There is famine in Ethiopia.

(83) and (85) are odd because of the mismatch between the positional default readings and the lexical material in these sentences. We can also explain the oddity of these two by their relation to the unmarked orders. A VSX order emphatically affirms the proposition expressed by the corresponding SVX order, and the same for VXS and XVS, as noted in (79). If this is so, then the emphatic affirmation of an odd proposition must be odd, too.

In this section I have discussed the marked constituent orders with respect to identifiability. The contrastive orders are relatively free in their ordering capabilities because of their pragmatic function: it is as easy to contrast IdentDef as it is IdentIndef entities. But their second position is interpreted as IdentDef so that if the constituent in this position denotes something inherently IdentIndef, the utterance is strange unless the constituent contains some identifying morphology. The verb-initial orders emphatically affirm the propositions expressed by the corresponding neutral orders. If a neutral order is strange due to a mismatch between the positional reading and the lexically induced IdentDef or IdentIndef readings, the corresponding emphatic order is odd in the same way.

4.4. Partitive Subject and Word Order

It is traditionally assumed that the neutral position of the partitive subject is at the end; this has been one of the markers of the prototypical existential clause. The initial position, on the other hand, has been considered to be marked for these subjects. Vähämäki (1988) and Hoover (1984) explicitly state that initial partitive subjects are
marked. No explanation, however, is offered for why the final position should be unmarked, or why the initial position should be marked. I propose that the answer lies in the semantics of the partitive nouns. They are QuantIndef; they denote non-exhaustive, non-delimited entities, and as such they are interpreted as IdentIndef, and this gives them their unmarked position at the end. The following illustrate the neutral orders for Ex-par’s:

87. Puutarhassa istui naisia.
garden-INE sat-3sg women-PAR
In the garden there were sitting women.

88. Lattialle kaatui vettā.
floor-ALL fell-3sg water-PAR
Water fell on the floor.

When these constituents are in the opposite order, the subjects get the default interpretation IdentDef which clashes with the sequential reading. The positional interpretation may be overridden, as stated already, by morpholexical means and/or intonation. The examples below show marked intonation in action.

89. Naisia istui PUUTARHASSA.
women-PAR sat garden-INE
Women were sitting in the GARDEN.

90. Vettā kaatui LATTIALLE.
water-PAR fell-3sg floor-ALL
Water fell on the FLOOR.

How does the partitive subject behave in the contrastive orders? They are not different from Ex-noms. In a contrastive order, the partitive can be contrasted and it can be the IdentDef constituent, the latter because it is contextually established as IdentDef. The following illustrate these orders:

91. PUUTARHASSA naisia istui.
garden-ADE women-PAR sat-3sg
It was in the GARDEN that some women were sitting.

92. NAISIA puutarhassa istui.
women-PAR garden-ADE sat-3sg
It is WOMEN that were sitting in the garden.

93. LATTIALLE vettā kaatui.
floor-ALL water-PAR fell-3sg
It is on the FLOOR where some water fell.

94. VETTĀ lattialle kaatui.
water-PAR floor-ALL fell-3sg
It is water that fell on the floor.

The contrastive orders thus allow partitives in both the contrasted and the IdentDef position. Note that the partitive subject here does not sound odd the way famine
did in the corresponding slot. This discrepancy is apparently due to differences between those nouns which can be partitive subjects and those like famine, which cannot be in partitive as the subject of an e-clause. Thus there appears to be an inherent difference between the entities which can be represented by partitive in the subject position and those which cannot, and this is reflected in their syntactic behavior.

The sentences below have the emphatic, verb-initial orders:

95. ISTUI puutarhassa naisia.
    sat-3sg garden-ADE women-PAR
    There DID sit women in the garden.

96. ?ISTUI naisia puutarhassa.
    sat-3sg women-PAR garden-ADE

97. KASVAA Suomessa vihanneksia.
    grow-3sg Finland-INE vegetables-PAR
    There DO grow vegetables in Finland.

98. ?KASVAA vihanneksia Suomessa.
    grow-3sg vegetables-PAR Finland-INE

The oddity of (96) and (98) was already discussed above. The proposition that these utterances emphatically affirm is the proposition expressed by the partitive initial subject which itself is odd with the neutral intonation:

    women-PAR sat-3sg garden-INE.

100. *Vihanneksia kasvaa Suomessa.
    vegetables-PAR grow-3sg Finland-INE

These same sentences are perfectly normal with a demonstrative:

101. ISTUI niitä naisia puutarhassa.
    sat-3sg those-PAR women-PAR garden-INE
    Some of those women DID sit in the garden.

102. KASVAA niitä vihanneksia Suomessa.
    grow-3sg those-PAR vegetables-PAR Finland-INE
    Those vegetables DO grow in Finland.

In fact, some of the Finnish speakers in the experiment to be reported below mentioned that in these particular orders they had a strong desire to add a demonstrative to the subject noun in this position which would have made it explicitly IdentDef. These orders are natural with a nominative subject, as expected:

103. ISTUIVAT naiset puutarhassa.
    grow-3pl women-NOM garden-INE
    The women DID sit in the garden
104. KASVAVAT vihannet Suomessa.  
grow-3pl vegetables-NOM Finland-INE 
Vegetables (generic) DO grow in Finland. 

The final position is the default for IdentDef NPs. 
When this position is filled by a proper noun or a pronoun, 
these are odd with their default intonation (105) and thus 
the default interpretation is not applicable. If we use a 
double focus, the resultant utterance is normal (106). 

105. ?MENI kouluun Jussi. 
went-3sg school-ILL Jussi-NOM 

106. MENI kouluun JUSSI. 
At least JUSSI went to school. 
The examples corresponding to (106) have, though, the 
additional meaning component 'at least'. 

Note that there is a difference between the emphatic 
and contrastive orders with respect to the IdentDef reading 
of the second constituent. In the contrastive orders the 
second constituent is established as IdentDef textually. 
In the verb-initial orders we might expect the same, but it 
is not the case. The pragmatic function of the verb- 
initial order is such that the whole proposition is NewInfo 
even though the constituents themselves carry OldInfo: the 
function of this order is to emphatically assert the whole 
proposition, not any one part of it, like in the 
contrastive orders. Thus the default readings of the NPs 
are the same as in the unmarked orders, unaffected by the 
previous text. 

It is traditionally suggested that the neutral order 
for the 'yes/no'-question is VSX. The following illustrate 
this; 'Q' stands for the question particle: 

107. Lukiko Leevi kirjaan? 
read-3sg-Q Leevi-NOM book-OBJ/PAR 
Was Leevi reading a book? 

108. Ovatko lapset sängyllä? 
be-3sg children-NOM bed-INE 
Are the children in the bed? 

109. Tuliko Kari tallista? 
came-3sg-Q Kari-NOM stable-ELA 
Did Kari come from the stable? 

However, when we have partitive subjects, the neutral 
question order is not VSX but VXS: 

110. Onko siellä kahvia? 
be-3sg-Q there coffee-PAR 
Is there any coffee in there?
111. Kasvaako Suomessa mangoja?
grow-3sg-Q Finland-INE mangoes-PAR
Do mangoes grow in Finland?

112. Tuleeko teille vieraita?
come-3sg-Q you-ALL visitors-PAR
Are you going to have company?

These questions follow the same ordering of the IdentDef and IdentIndef constituents as found in default declaratives; thus, Finnish has two default orders in questions, too. This is additional support for the proposal that word order and identifiability interact.

In this section we have seen that the partitive subjects in e-clauses pattern with IdentIndef constituents. The reason for this is the semantics of the partitive: partitive nouns denote QuantIndef entities, and these are interpreted by default as IdentIndef. 'Yes/No'-questions, too, have two neutral orders in Finnish, conforming to the schema proposed for the declaratives.

4.5. Some Other Clause Types

4.5.1. Possessives

The possessive construction is formally close to e-clauses. The following are examples of the default possessive expressions with an animate possessor:

113. Miehellä on laukku.
man-ADE is bag-NOM
The man has a bag.

112. Nooralla on mehua.
Noora-ADE is juice-PAR
Noora has juice.

113. Minullä on sinut.
I-ADE is you-OBJ/ACC
I have you.

The only neutral order is the one given here: XVS. The opposite order, SVX, gives an existential, not possessive, reading, except for the pronoun possessed (113) which does not seem to give any coherent reading for this order. The only emphatic order with an exclusively possessive reading is the one expected for XVS - the VXS:

114. ON mieheltä laukku.
is man-ADE bag-NOM
The man DOES have a bag.

115. ON Nooralla mehua.
is Noora-ADE juice-PAR
Noora DOES have juice.
116. ON minulla SINUT.
   is I-ADE you-PAR
   I DO have YOU at least.

The other emphatic order – VSX – does not have the
possessive reading:

117. ON laukku miehellä.
   is bag-NOM man-ADE
   The bag IS with the man.

118. ON niiitä NOORALLA.
   is those-PAR Noora-ADE
   There are at least some of them with Noora.

These examples support the proposed relation between the
emphatic and the default orders. In other words, the
proposition expressed by the default order XVS has only one
emphatic form, VXS, be the clause existential or
possessive; correspondingly, the SVX default order has only
VSX as its emphatic form.

We might ask why it is this particular order, XVS, that
has become conventionalized as the possessive construction,
and not the opposite order? It seems that pragmatically
the NewInfo, the 'news' in the possessive construction, is
the possessed. The possessor is the starting point and
what he has is the central point of the message. Following
the principle of NewInfo to the end, and the S-topic at the
beginning, the possessed over time became conventionalized
there. Again, Finnish is not alone in this; e.g.,
Classical Arabic has a very similar relation between the
locative and possessive readings (Comrie 1981:216)
expressed by constituent order.

The contrastive orders are ambiguous between the
possessive and the existential readings.

119. MEILLÄ nukke   on.
       we-ADE doll-NOM is
       WE have a doll/The doll is with us.

120. NUKKE   meillä on.
       doll-NOM we-ADE is
       It is a doll that we have/. that is with us.

Word order in the possessive construction follows the
general pattern posited here. The neutral and the emphatic
form are related in the anticipated fashion. Also the
ambiguity of the contrastive order is as expected – in this
order also the identifiability factor was ambiguous. These
links are not random but have their own logic. If we need
to contrast a constituent with some other constituent(s),
there does not seem to be any reason to limit the contrast
to any specific constituents, say, only those denoting
IdentDef entities. In the same way contrast must be
available for both the possessor and the possessed, and
equally well for the location and the located. However, if
we have a proposition with an IdentDef subject and we want to emphatically assert this proposition, it would not make much sense to have this emphatic form be ambiguous between the IdentDef and the IdentIndef reading. Consequently, the SVX has only VSX as its emphatic form while VXS asserts the neutral XVS.

4.5.2. Manifestation Clause

The manifestation clause has a rigid VS order. When the order is reversed, the meaning of the sentence totally changes. I will repeat some examples here (from Vilkuna 1987 ch. 3):

121. Heräsi useita kysymyksiä.
awoke-3sg several-PAR questions-PAR
Several questions arose.

122. *Useita kysymyksiä heräsi.
several-PAR questions-PAR awoke-3sg
*Several questions awoke.

123. Puhkesi kapina.
erupted-3sg rebellion-NOM
A rebellion broke out.

rebellion-NOM erupted-3sg
*The rebellion erupted/burst.

These examples confirm the rule that initial subjects are interpreted as IdentDef and final subjects as IdentIndef, unless otherwise indicated. The IdentDef readings for the subject in (122) and (124) are clearly impossible; the sentences in this order lose their metaphorical character and have a meaning incompatible with their lexical content. The subjects come to be interpreted as IdentDef which they inherently are not. The verb meaning in these clauses is, as noted above, 'coming into existence' and this meaning becomes literal with the IdentDef subject of the SV-order. The final subjects in (121) and (123) are interpreted as IdentIndef, and this follows from the general principle. This clause is a prototypical "formal idiom" à la Fillmore mentioned earlier, where the basic structure and pragmatic value are stipulated; these in turn put limits on the lexical content that is used to fill the form. But, again, this idiom, too, has its roots in the general paradigm.

4.5.3. Transitive clauses

The default order for transitive clauses is SVX, but, as we saw above, there are transitive clauses with the opposite neutral order. I will repeat below some of the earlier examples for the sake of illustration:
125. Minua puri kʷárme.
    I-OBJ/PAR bit-3sg snake-NOM
      I was bitten by a snake.

126. Minnaa vaivaa anemia.
    Minna-OBJ/PAR bother-3sg anemia-NOM
      Minna has anemia.

127. Hänne tarinoitaan maustaa
      kirpeä huumori.
      tart-NOM humor-NOM
      His stories are seasoned by tart humor.

These are the only neutral orders, because they have an
IdentIndef subject.

The subject is IdentDef in the emphatic orders:

128. PURI minua kʷárme.
      bit-3sg I-OBJ/PAR snake-NOM
      I WAS bitten by a snake.

129. ?PURU kʷárme minua.
      bit-3sg snake-NOM I-OBJ/PAR

(129) is expectedly odd: if the corresponding neutral order
is odd, then the emphatic order is, too; the definiteness
relations must be retained. Transitive clauses thus follow
the general pattern where NPs in specific positions are
interpreted as either IdentDef or IdentIndef, a pattern
that other clause types also conform to.

4.6. Sequence Construction Rules

The previous sections illustrated that each order of
constituents had the same pragmatic and semantic effects
regardless of clause types. The more idiomatic clauses
like possessives and the manifestation clause in fact
crystallize the general principles involved. The possessor
is treated as IdentDef and the possessed as IdentIndef,
which is logical from the pragmatic viewpoint. The
manifestation clause is not totally arbitrary either, but
obeys the IdentIndef-at-the-end rule. So do the transitive
clauses. Thus the functions of word order are not tied to
any one clause type but are the same in all clauses with
free word order, and extend even to the more rigidly
patterned constructions.

I will now state the rules for the three constructions
involved in word order. Each rule has a pragmatic and
semantic part. The split between these two is motivated by
the following considerations. The semantic part of the
rules has to do with whether or not the constituent in
question is interpreted as IdentDef or IdentIndef. These
readings are applied independently of context in the
unmarked orders, and thus there is no strong motivation for
considering this to be a pragmatic matter. The pragmatic values, on the other hand, are more context dependent. The marked orders always involve propositional presuppositions, while the unmarked ones need not. Thus the marked orders always require a specific context, and this supports the delegation of this aspect to pragmatics. This decision, however, is not of any crucial importance here, and I will change my mind if valid evidence to the contrary is presented.

The rules below are purported to cover all clause types in Finnish that have free constituent order. The first one is for the unmarked word orders. One difference between these rules and those for the e-clauses is that now order is, of course, rigid. Also what syntactic role each constituent plays in the sentence is not important, but only the category. I repeat once more, that the definiteness readings are most transparent for subjects, while in objects and other NPs additional factors are involved, which make the definiteness of the constituent more opaque.

OVERALL
DEFAULT: Constituent set: NP₁, V, NP₂
Category: S
Sequence: <NP₁, V, NP₂>

Pragmatic value: unmarked
Semantics: NP₁ is interpreted as IdentDef and NP₂ as IdentIndef by default

The next rules are for the marked orders. They both have an initial focus but its interpretation is different depending on the order. First comes the contrastive construction:

CONTRASTIVE: Constituent set: (NP₁ [+Focus]), V, NP₂
Category: S
Sequence: <(NP₁ [+Focus]), NP₂, V>

Pragmatic value: marked; contrast on [+Focus] constituent
Semantics: NP₂ is interpreted as IdentDef by default

The emphatic orders have the verb at the beginning, and the focus has the whole proposition in its scope:

EMPHATIC: Constituent set: NP₁, (V [+Focus]), NP₂
Category: S
Sequence: <(V [+Focus]), NP₁, NP₂>

Pragmatic value: marked; emphatic affirmation of the proposition
Semantics: NP₁ is interpreted as IdentDef and NP₂ as IdentIndef by default
4.7. Summary

In this chapter I have examined the order of constituents in e-clauses and some other clause types. I propose that there are three Sequence Constructions involved in the variation of word order in general; pragmatically one is the overall default, one contrastive and one emphatic. Each Sequence Construction has two possible orders, and a default intonation. The Sequence Constructions encode definiteness so that each position has a specific interpretation for the NP involved: in the unmarked orders the initial constituent is interpreted as IdentDef and the final as IdentIndef by default. In both of the marked orders the second NP has the IdentDef reading; in the emphatic orders the final NP is IdentIndef, and in the contrastive orders the initial constituent is ambiguous between the two readings. The reason why partitive subjects are felt to be marked initially is due to their semantics: they are QuantIndef, which is interpreted as IdentIndef, whose unmarked position is at the end in the neutral order. Analogously, proper nouns and pronouns are marked in the final position because they are IdentDef, while final NPs are interpreted as IdentIndef by default. All of these default interpretations can be overridden morpholexically and/or intonationally. Clauses with restricted word order conform to the pattern proposed here, but they may also encode additional meanings, which was the case with the possessive constructions where the order was central in the expression of possession.

In the next chapter I will illustrate the accentual patterns stipulated in this chapter. I will establish what the neutral intonation is, and what the defaults for the marked orders are. I will first propose a basic accentual analysis for Finnish. I will concentrate exclusively on the realization of information flow by the F0 contours; I will have nothing to say about the affective uses of intonation, nor do I claim to explain all the facts of intonation, even in relation to word order. It is mostly the default patterns that are of interest here. Also, at this point I will be looking for patterns and possible differences exclusively from the F0-Contours, and thus I will have nothing to say about the effects of intensity, timing, phrasing and/or final lengthening in the expression of the information structure.
CHAPTER V
INTONATION AND WORD ORDER

5. Introduction

It was proposed above that the Sequence Constructions each have a particular default accent pattern which reflects their pragmatic status. In this chapter I will show what these default contours are. To do that, I will first present a pitch-accent analysis of Finnish intonation. I will describe the basic intonational structure in terms of one pitch accent, L+H*, and L% and H% boundary tones. In the neutral intonation contour the pitch accents manifest a smooth downstepping flow, all phrases being equally prominent, and the finite verb is accentless. The marked word orders have an initial focus, as predicted above. I will begin by introducing the general phonological framework, then I will review work done on Finnish intonation, and next give my analysis. Last I will report on an experiment on the intonation in the various Sequence Constructions.

5.1. Phonological Preliminaries

The pitch contour of an utterance can be described as being composed of a sequence of individual pitch accents (PA) and a boundary tone. Pierrehumbert (1980) describes English intonation in terms of two primes, the High and the Low tones, which may combine to give complex accents. I will analyze Finnish using this same approach. The term accent is used for a tone which is associated with a (primary) stressed syllable, while a tone need not have a prominent syllable in its domain, though it can (see Beckman 1986, ch 3). The particular prosodic phrases involved are the intermediate phrase and the intonational phrase (Beckman & Pierrehumbert 1986). The intonational phrase is one utterance unit which has a final, and optionally an initial, boundary tone. The intermediate phrase in English is identified by a final phrase accent. An intonational phrase may consist of several intermediate phrases, but need not.

The nuclear pitch accent (nPA) corresponds to the metrically strongest beat in the phrase or the traditional main sentence stress. Focus is a term used already above for special phonetic prominence only. Increasing the pitch
range is a common way of singling out salience in languages (Pierrehumbert & Beckman, 1988), but since not every sentence has a salient constituent, not every sentence has a focus. I am thus not making a difference between 'broad' and 'narrow' focus as, for example, Ladd makes it: broad focus for him is the unmarked focus and its domain is the whole sentence, while the narrow one is marked, and its domain is smaller than sentence (1980:76). Pragmatically this view close to mine, but the use of the term 'focus', however, is confusing because it seems to collapse the interpretation of focus with its manifestation. I take the 'broad focus' to be the case of no focus while the 'narrow focus' involves a constituent with a relatively greater pitch range. The interpretation of focus, i.e., special phonetic prominence, depends on word order in Finnish: its scope may be either one constituent or the whole proposition, as we saw above. The term 'narrow' focus is thus also misleading since its domain is not necessarily smaller than sentence.

In English the nPA is associated with (broad and narrow) focus. Chomsky and Halle's nuclear stress rule gives the broad focus, as was discussed in chapter I, but the narrow ones cannot all be predicted from the syntactic form. But whether the focus is 'narrow' or 'broad', in English it involves a nPA on the last acceptable syllable in the 'focus domain'. In Finnish this is not the case: as we will see below, the putative nPA is not always phonologically distinguishable from the other accents, and it is not necessarily final either. I will consequently propose that Finnish does not have a nPA as a phonological entity, at least not as it is defined for English.

An essential claim in this thesis is that intonation may be grammaticized so that the accent pattern is a formal concomitant of a syntactic construction; see, e.g., Sadock and Zwicky (1985) on the various forms that grammatization of pragmatic values can take. Some recent phonological theories, however, emphasize the relative independence of intonation from the text (Liberman 1979; Pierrehumbert 1980; Ladd 1980), but this basic divergence in opinion can be traced to fundamentally different assumptions about grammar in general.

In the present work syntax is seen as providing the speakers with a relatively large number of constructions à la the Saussurean sign. Thus, when form and function combine, there is no conflict in seeing accents as grammaticized parts of the form. Selkirk (1984), too, has emphasized the role of intonation in the expression of the information structure, as distinct from the other uses intonation has; this implicitly assumes an intimate connection between the syntactic form and the tune. The Finnish Sequence Constructions illustrate the case where we can stipulate the default accent pattern of each construction.
In this section I have introduced the basic phonological framework and terminology to be used in the analysis of Finnish below. I also recapitulated the primary syntactic assumption, where tune is part of the form side of the Saussurean coin. Next I will review the literature on Finnish intonation.

5.2. Intonation in Finnish

It is difficult to assess the work done on intonation in Finnish because the discussions usually do not give any actual pitch contours but only stylized diagrams, based on averages of several productions. More importantly, these representations are not always faithful to objective data, since auditory observations are used to support the acoustic measurements (e.g., Ivonen 1978:51). The result is that it is impossible to know what is based on the researcher’s subjective interpretation and what is objective. Additionally, because the pitch contours are re-creations and thus do not closely correspond to any genuine utterances, important details may be lost.

The basic, generally agreed-upon facts are the following (Karlsson 1982:168–175; Ivonen et al. 1987:ch. 6). The intonation contour of a declarative sentence begins at the center of or slightly below the center of the pitch range and there is declination over the F0-pattern, plus final lowering and laryngealization. Unstressed syllables have a lower F0 value than stressed syllables. The primary sentence stress or the nPA in neutral declarative sentences is the last accent in the utterance; it can be identified, according to Ivonen et al., only semantically. In other words, in these instances the nPA is not distinguishable from the preceding accents. Karlsson suggests that the last hump in a sentence is the location of ‘the neutral information focus’ which conforms to Ivonen et al.’s statement in its pragmatic sense. The neutral contour can be found with any of the basic clause types in Finnish. There are differences in sentence initial pitch height depending on discourse functions, clause type, mood, presence of pragmatic particles and the part of speech of the first word.

A declarative sentence may have an accent that is phonetically distinguishable from the other accents. These are called contrastive accents or those which express attitude or emotion; as a cover term for both, Ivonen et al. use ‘effect’-accent. The contrastive accent is understood to be the same as what I termed ‘contrast’ as a pragmatic function; it implies a definite choice among alternatives which are already present in the discourse model. I wish to emphasize that the discourse function ‘contrast’ is independent from any particular accent: ‘contrastive accent’ is simply a focused accent which happens to have a contrastive interpretation. This accent is phonetically distinct from the surrounding accents, unlike the putative nPA in neutral declaratives. But an identical PA, phonologically speaking, can also be used in
the emphatic word orders to signal the emphatic affirmation of the proposition. Thus, accents are phonological entities which may be used to realize various pragmatic functions. Culicover & Rochemont have emphasized this same point (1983).

The nPA in English is on the metrically strongest beat in the intermediate phrase (Beckman 1986:24), and it is also the last one in the phrase, followed by a phrase accent (Pierre-humbert 1980:18; Beckman ibid.). As was noted above, in Finnish the 'neutral' nPA is not phonetically or phonologically distinct from the other accents, and for this reason it not clear that we need it in Finnish at all. Another factor that goes against a special nPA in Finnish is that the metrically strongest beat need not be last in an intermediate phrase. We will see below examples where an utterance begins with focus, i.e., the strongest beat in the phrase, but where there clearly are accents after it in the same phrase. However, since nothing in this study hinges on recognizing or not recognizing the nPA, I will leave the question open whether Finnish has it not. But if there is one, we definitely cannot identify it simultaneously as the last accent in the phrase and the one associated with the strongest beat.

I will next illustrate the traditional accent patterns of Finnish using diagrams from Iivonen et al. (1987), whose work is among the most recent and representative of the work on Finnish intonation. Then I will produce actual pitch contours from my own corpus with an accentual analysis. The data for this analysis come from a study of 100 sentences, each produced six times by two female native speakers of Finnish. The analysis here and in the next experiment to be reported was done using a digital waveform editor. The corpus consists of transitive and intransitive clauses, and includes declaratives and interrogatives as both neutral and non-neutral utterances. An attempt was made to include sentences containing mostly voiced segments. We will see that my analysis conforms rather closely to the work of Iivonen et al. Where I depart from them is that I propose that in the neutral contour there is no accent on the finite verb.

The first contour from Iivonen et al. illustrates the neutral sentence contour. Where the pitch goes up (hump), there is an accent (lauseepaino 'sentence stress'), and where it goes down (valley), there is no accent (Iivonen & al. 1987:236).
Figure 1. A stylized diagram of the typical intonation contour in Finnish

The following illustrates focus. Iivonen et al. note that in these contours the F0 is typically lowered and 'flattened' in the syllables surrounding the effect-accents, especially after them. I will confirm this, but also show that there may be accents both before and after the focused constituent.

Figure 2. Stylized prominent accent

The next contour outlines a 'stressless' beginning of an utterance:

Figure 3. A 'stressless' beginning

The above diagrams illustrate the Finnish intonational shapes in general terms. Next I will give my accentual analysis.
[Erinomaisen vahva mies], [kuokkii harvinainen ahkerasti]
(an) extremely strong man  hoes exceptionally diligently

[tieänkös Metsittynyttä ahoa], [suurella kaukaisella salolla]
(a) thickly forested meadow  (in) big remote backwoods

Figure 4. One intonational phrase consisting of two intermediate phrases
5.3. A Pitch-Accent of Analysis of Finnish

The pitch-accent analysis proposed here is intended to embrace all clause types in their various word order alternants, but I do not propose to cover the whole terrain of intonation in Finnish. I have, for example, almost no comments on the extragrammatical uses of intonation, but I do not expect these to introduce any radical modifications. For the basic analysis we need one pitch accent and two boundary tones. The pitch accent is complex, composed of a Low and a High tone – L+H*. The two boundary tones are Low and High – L% and H%.

Since the main interest of this work is in the interaction of intonation with word order, the data must be of a specific kind. For example, all phrases will be simple. Consequently, nothing will be said about the alignment of accents with complex phrases. The justification for this decision is that complex NPs in the data would be self-defeating: noun modifiers restrict the set involved, and thus provide identification that would wipe out part of the semantic contrast between the nominative and partitive, a contrast which is one of the objects of interest. To illustrate, examples (1) and (2) are crucially not the same even if both have partitive subjects:

1. Pihalla on autoja.
   yard-ADE is cars-PAR
   There are cars in the yard.

2. Pihalla on niitä autoja.
   yard-ADE is those-PAR cars-PAR
   There are some of those cars in the yard.

Both subjects denote a QuantIndef amount but in (2) the subject is IdentDef (through the demonstrative) and in (1) the subject is IdentIndef (through word order); this difference is introduced by the demonstrative modifier.

I will also intentionally concentrate on short sentences which belong to only one intermediate, and thus one intonational phrase. The reason is that between two intermediate phrases the pitch range will be reset, and this makes it difficult to compare the relative pitch heights of two accents, which comparison is essential in considering the interaction of accents and word order. For comparative purposes, however, I give in figure (4) on the previous page a rather long sentence to illustrate how the F0 behaves between intermediate phrases. Each proposed intermediate phrase is enclosed in square brackets. The Finnish transcriptions are all phonetic. The pitch range in all the figures is between 50 and 350 Hz, and the time of each window is 2.5 seconds, unless otherwise indicated. Also, all of the examples below contain only one intermediate phrase unless otherwise stated.

The next trace illustrates the neutral intonation where each constituent is equally prominent:
We can note that the initial accent is relatively higher than the others. There are two alternative explanations for this, and these are not necessarily mutually exclusive. One has to do with the phonetic correlates of the various discourse units. Lehiste, in her pioneering studies on the phonetic characteristics of discourse has shown that, for example, "the main cue for the identification of a sentence as having been produced as the first sentence of a paragraph appeared to be the high fundamental frequency peak that regularly occurred in the beginning of such sentences" (1980:28). Ivonen (1983) has shown the same in Finnish newsreporting. All examples in my two studies here were read individually, and thus the initial, relatively high FO-value may be due this fact of the utterance being the first in a one-sentence paragraph. We can also note in figures (4a) and (4b), that the total contour 'imitates' a paragraph in that each successive intermediate phrase has a lower initial FO-value than the previous corresponding accent, except that the very first accent is clearly relatively higher than any of the other accents. The paragraph initial FO-peak is one possible explanation for the first, relatively greater pitch range.

The other explanation has to do with exponentiality of downstepping (to be discussed presently): each downstep is realized as a constant ratio of the FO value of the preceding H* value (see e.g., Pierrehumbert 1980; Silverman 1987). If this is so, then the observed pattern can be understood as a consequence of this. The first step would be bigger than then next, because the initial value itself is higher, while the second step is smaller because it is realized in relation to the second H* value, which is smaller than the first. But since it is not the purpose of this work to come up with a definitive answer to this question, I just note the phenomenon and its possible explanations here.
The intonation contour was analyzed in terms of one accent, the $LH^*$. The complex $LH^*$ accent means that the accent begins with a rise before the primary stressed syllable, and the $H^*$ is associated with this syllable. Actually, the $H^*$ is not necessarily exactly on the stressed syllable. In Finnish a CVVC-sequence is known to have the pitch, amplitude and F0 peaks on the second syllable (e.g., Sadeniemi 1949; Wiik & Lehiste 1968), but even when the first syllable is long, the F0-rise may spread over to a following syllable. The important point is, however, that the $H^*$ is on or in immediate vicinity of the primary stressed syllable. The analysis of the accent into a complex one accounts for two observations about the contour: the valley between the humps and the downstep.

As we can see, there is a relatively deep valley between each 'hump' in the accent pattern. If we assume a $L$ before the $H^*$, this observation is explained: the F0 falls after the $H^*$ toward the next target, which is the Low of the following accent, and then rises again toward the $H^*$. Alternatively, we could propose that the hump-accent is a $H^*$ with a slight rise, which rise we can typically observe at the beginning of the utterances. This, however, would not justify the steepness of the valley which the complex accent does. The other observation that the complex accent analysis accounts for is downstep. In English, all the bitonal accents induce downstep (Pierrehumbert 1980). That is what happens in the Finnish contour, too. The proposal is that the $L$ before the $H^*$ triggers the $H^*$ to have an F0-value which is lower than that of the previous $H^*$. Of course, instead of downstep, the gradual decline of the pitch range can be seen as declination, but we would still have to explain the steepness of the valley between the $H^*$'s.

I am also proposing that in the neutral contour there is no accent on the finite verb. This same observation, that the verb is 'weaker', was made by Viitori Peltonen in 1901 (as reported in Livonen & al. 1987:221). Interestingly, Schmerling (1973:106-110) proposes that English and German have a rule assigning lower (sentence) stress on the verb than on its arguments. In the traditional accounts of Finnish, as we saw above, there is no special treatment proposed for the verb, but figure (5) and those still to be seen strongly indicate the finite verb to be different in its relation to the general F0 behavior in the pitch-contour. One piece of evidence for the lack of accent comes from a comparison of figure (6), where the verb is after one $LH^*$, with figure (7), where the verb is after two $LH^*$ accents.
[ Minna lauloi eiler rannalla Maijallel laulun ]
'Minna sang yesterday on the beach to Maija a song'

Figure 6. Finite verb second in the utterance

[ eilem Minna lauloi Maijallel laulur rannalla ]
yesterday Minna sang to Maija a song on the beach.

Figure 7. Finite verb third in the utterance.

It is quite clear that there is a difference between (6) and (7). This difference depends on the position of the finite verb; on the verb the F0 movement is basically flat.

Let us consider further support for the lack of accent on the finite verb. Compare (7) with (8) below, where we have a neutral, verb-initial 'Y/N-question'.

[ lauloiko Minna eile Maijallel laulun rannalla ]
sang-Q Minna yesterday Maija-ALL song-OBJ/GEN beach-ADE
'did Minna sing yesterday a song to Maija on the beach?'

Figure 8. Neutral 'Y/N-question'

In the unmarked interrogative construction the finite verb is initial and accented, and it contains the interrogative particle. Note the difference between this tune and (6) and (7): in the latter two there is a plateau in the F0-movement at some point, but in (8) there is no plateau.

Additional evidence for the lack accent on the finite verb comes from Livonen (in Karlsson 1982:171), who notes that if the utterance begins with the finite verb and there is no overt subject, the first peak (alkuhuippu) will be on the word AFTER the finite verb. Karlsson gives the following example (3) of this where the first peak is said to be on simpukan.

3. Nänin simpukan rannalla.
saw-slg shell-OBJ/GEN beach-ADE
I saw a shell on the beach.

In figure (9) below we have the above sentence. Compare it with figure (10) which has this same sentence with an overt subject.
[năin simpukan rannalla]
'(I) saw a shell on the beach'

Figure 9. Initial finite verb with no overt subject

[mină năin simpukan rannalla]
'I saw a shell on the beach'

Figure 10. The same as above but with an overt subject

As we can see, the contour in figure (9) is not exceptional in any way: it follows the neutral pattern of figure (10), except that it has no accent for the missing subject, as can only be expected. The verb has no accent of its own but it is included in the L of the complex accent.

Karlsson suggests that in cases like (9) the first peak and the information focus coincide, and, also, that the falling contour is not present. It is not clear why the 'information focus' should be on the first peak in (9), and not on the last, as in (10). The only reason why this should appear to be so is that in figure (9) the object simpukan has the highest F0-value in the utterance, and it also happens to be preceded by a low F0-value, which gives this first peak an impression of special prominence. But the contour in (9) does have a fall: it downsteps in the
regular fashion, but there are only two accents that can 'step down'. I am thus proposing that sentence (9) has an accent pattern which is in no way exceptional. There is no accent on the verb, just as in the neutral contour, but since there is no overt subject and hence no accent at the beginning, the simpukan is perceptually more prominent than it is in (10).

Compare figure (9) with figure (11), which is a reminder. Both have a L beginning, but in figure (11) it has a lower value. In both instances the initial L of the first accent falls on a word with stress, but in (11) each word, including the first, is slightly emphatic, while in (9) there it is no emphatic word. Liberman and Pierrehumbert (1984), and Pierrehumbert and Beckman (1988) suggest that under emphasis Low becomes lower and High becomes higher. If this is so, then the difference between the initial pitch heights in (11) and (9) is expected. Note that (9) and (11) illustrate the 'stressless' beginning of Iivonen et al.

\[ \text{[Ylä unohda omenoita]} \]
'don’t forget (the) apples'

Figure 11. An utterance where each word has slight emphasis

In suggesting that underlying the neutral contour there is no salient constituent, I am implicitly stating that all constituents are equally prominent. This is indeed the case; even the verb appears to be as prominent as the other words\(^1\). Perception of prominence is of course relative to downstepping, i.e., it is not the absolute F0-values which are interpreted but the accents are expected to slope. When the slope is absent, e.g., if two adjacent accents are equally high, the latter is perceived as louder or more prominent than the preceding accent. We will see examples

\(^1\) The perceptual statement here is my personal judgment and is not based on experimentation.
[Eila meni marjaan], [Noora meni myllylle],
'Eila went to pick berries, Noora went to the mill,

[Leevi meni ongelle], [ja muut menivät tuimaan],
Leevi went fishing, and the others went swimming'

Figure 12. An utterance with three 'continuation' contours and one neutral contour
of this below. The perceived equal prominence of all constituents in the neutral contour is probably the source of the claims, that Finnish intonation is monotonic (Sovi-järvi in Tivonen & al. 1987:237), and that Finnish speakers seem to 'mumble' when they speak (L. Hakulinen 1979:33).

At the end of the contours we have a L% boundary tone. This is not associated with any particular syllable, but goes to the end of the utterance and covers whatever syllable there is. In using the boundary tone, I am not proposing that Finnish, after all, has a nPA. The boundary tone is simply a characteristic of the intonational phrase, not of any particular individual accent. The F0-slope continues smoothly from the last pitch accent to the L% boundary tone regardless of any intervening primary word stresses.

Utterances which have the so called 'continuation' contour are marked by the absence of a final fall (Tivonen et al. 1987: 239), which suggests that the boundary tone is not L%. The example in figure (12) on the previous page contains four intonational phrases, the three first ones having the 'continuation contour', while the last has the neutral, 'non-continuing' pattern. Note the direction of the F0 in the first three intonational phrases: from the phrase-final L+H* the F0 continues almost horizontally toward the end where there is a H% boundary tone; the last PA is in focus in each continuation contour. Compare these contours with the neutral contours: the contrast between the H% and L% boundary tones is obvious. In the continuation contour the boundary tone is H%, which explains the direction of the F0 after the last PA.

Consider next figures (13) and (14). Compare especially the shape of the accent before the focus in (14) with the corresponding accent in (13).

![Diagram of intonational contours](image-url)

[ Minna antoi emünnällev viiniä ]
'Minna gave some wine to the hostess'

Figure 13. The neutral contour
Both utterances have the neutral word order, but the first has the neutral contour while the latter has a final focus. The most conspicuous sign of focus is the increased pitch range, but we can also notice a clear anticipatory F0-movement in the accent before it. In (13), without focus, the last accent is downstepped as usual, and F0 moves from the preceding accent toward the last as expected. But the initial L in the focused L+H* in (14) is relatively higher, and the F0 after the preceding accent anticipates this higher starting point. Thus, (narrow) focus is signalled not just by a higher F0 but also by a preceding, anticipatory movement.

Iivonen et al. stated that the accents around focus are flat. No such effect was seen above, but consider the following:

[ Minna LAULOI eiler rannalla Maijallel laulun ]
'Minna SANG yesterday on the beach to Maija a song'

Figure 15. Focus on the verb
Minna lauloi eiler rannalla MAIJALLEL laulun.
'Minna sang yesterday on the beach to MAIJA a song'

Figure 16. Focus on the indirect object

The F0 contours in (15) and (16) return after the focus to almost a level, the way they were before the focus. These diagrams support Livonen et al's statement of the flat post-focal contour. However, some utterances, especially those with marked word orders, may have also post-focal accents, as in the following examples. In the utterances below each word is emphatic but the initial constituents are the only ones in focus. Thus, the F0-contour around the focus is not necessarily flat, or even flatter than in the neutral contour, though this may be the typical case. In (17) and (18) the word orders are marked, while in (15) and (16) we had the neutral word order. When word order is neutral, the instances of focus typically involve echoic utterances or other similar partial repetitions, and the resulting F0-contour is marked for this word order.

LAULOI Minna eilel laulun.
'Minna DID sing a song yesterday'

Figure 17. VSX order with initial focus
[ EILEN Minna laulun lauloi ]
'It was yesterday that Minna sang the song'

Figure 18. XSV order with initial focus

The next example shows a marked interrogative which relates to the above point. This is an echoic question where we already know that Minna sang a song yesterday, but we want to know if it happened on the beach; the initial constituent has focus. The noteworthy aspect of this contour is not that there are accents after the focus, but that the accents after the focus are crammed within a very narrow pitch range, so close to the baseline that they cannot be modulated and downstepped in the regular fashion; this same seemed to be the case in figures (15) and (16), too.

[ RANNALLAKO Minna lauloi eilel laulun ]
'beach-Q Minna sang yesterday song'
'was it on the beach where Minna sang a song yesterday?'

Figure 19. A marked 'Y/N-question'

It will be of interest to compare these contours with the default contour for the marked word orders below, which
show initial focus followed by a long, flat F0-trace, about parallel to the baseline, but where no post-focal F0-modulation can be discerned. In these cases there are no accents at all, i.e., it is not a matter of being too close to the baseline but rather a matter of a different strategy. These will be the most clear illustrations of Iivonen's proposal of the lack of accents around focus.

In this section I have proposed that Finnish intonation can be analyzed into a sequence of L+H* pitch accents and a L% and H% boundary tones. I do not suggest that this inventory exhausts all the intonational phenomena in Finnish, but I do propose that it is sufficient for the expression of the basic intonational structure, and the analysis of intonation as a formal concomitant of the Sequence Constructions. Next I will report on an investigative experiment where word order was systematically varied. The results unambiguously confirm the stipulated default contours.

5.4. The Sequence Constructions and the Accent Pattern

An experiment was conducted where native speakers of Finnish produced six logically possible word orders of 25-30 sentences. I will report now on the results for four speakers. The subjects were two females (TAR) and (JAA) and two males (HAN) and (JYR). Each had a university degree; the females were from Helsinki and the males from Helsinki and Tampere. The test sentences were typed on four sheets of paper; all word order variants of one sentence were adjacent, but the order of the alternants was different for each test sentence. The whole set was read six times. To avoid list-end effects the subjects read some 20 additional sentences after the last test sentence; sentences with time adverbs were also in the corpus but no results on them will be reported here.

The following were the test sentences. All are normal and natural, except that (b) and (h) are pragmatically a bit odd, though not impossible. The guiding principle in the choice of sentences was again the segmental content—they should contain for the most part voiced sounds. I give the test sentences here in their unmarked order. The first group has nominative count noun subjects and thus can have both of the unmarked orders; the second group has partitive subjects and the unmarked order is XVS; the third group has proper noun or nominative non-count subjects and their unmarked position can only be initial. Also two transitive clauses with unmarked OVS-order were included; intonationally these were not different from the e-clauses.

4. a. Järveljä ajelehtii vene. 'There is a boat floating on the lake'
   b. Hevonen ui lammessa. 'The horse is swimming in the lake'
c. Nainen meni rannalle. 'The woman went to the beach'
d. Venäläinen ilmestyi rannalle. 'The Russian appeared
on the beach'

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e. Vadilla on velliä. 'There is gruel in the bowl'
f. Järvelä äelehtiä levää. 'There is some seaweed
floating on the lake'
g. Järvelä äelehtiä veneitä. 'There are boats
floating on the lake'
h. Lammessa uin hevosia. 'There are horses swimming
in the lake'
i. Leilissä on viiniä. 'There is wine in the flagon'
j. Rannalle meni naisia. 'Some women went to the beach'
k. Rannalle ilmestyi venäläistä. 'Some Russians
appeared on the beach'
l. Saveen muodostui vanoja. 'Grooves were formed in
the clay'

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m. Minna meni myllylle. 'Minna went to the mill'

n. Viini on leilissä. 'The wine is in the flagon'
o. Minna ui lammessa. 'Minna was swimming in the lake'
p. Viini on leilissä. 'The wine is in the flagon'
q. Anna meni rannalle. 'Anna went to the beach'

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h. Minua puri kärme. 'I was bitten by a snake.
i. Minnaa vaivaa anemia. 'Minna is suffering from
anemia'

Each sentence had a one-sentence context before it; the
subjects were instructed to read aloud only the test
sentences. The contexts were intended to be such that they
would elicit the default utterance of each word order; the
whole set from which the analyzed sentences were extracted
are given in the appendix. This set was devised before the
final syntactic analysis was completed, and consequently
some highly unnatural context-utterance pairs are included.
But the subjects either hesitated on these utterances or
produced them with some unnatural contour so that they do
not distort the picture presented here, but rather support
the syntactic proposals. The subjects were not told what
the intonation contour should be, but they were instructed to
be familiar with each sentence before the recording
session, to read each sentence in relation to the given
context, and to produce each utterance as if they were
talking to someone. Except for one person whom I did not
meet personally, I asked the subjects to give me random
test readings of the sentences before the recording, and I
also asked them to tell me if any sentence appeared
'unusable'; no such reports were given but, as stated, many
hesitations occurred.

The subjects were not told what the intended contours
were because part of the experiment was to see whether the
contours produced would indeed be what I had predicted.
The default predictions were strongly supported. The
unmarked orders had the neutral contour which was already
established above. Also, both the contrastive and the
emphatic orders all had focus on the first constituent.
The non-defaults for the neutral and emphatic orders, however, were not produced in a systematic fashion, and therefore I am unable to state how they differ from the default contours. Perceptually there is a clear difference between an unmarked word order with a final focus and the same with no focus. This far, however, I have been unable to pin down where exactly the difference lies. Also, a verb-initial order with its default initial focus was perceptually clearly different from the same order with an initial plus a final focus, but in these instances there is a phonological difference: the default has only one accent while the non-default has two.

In the non-default contours there were considerably more hesitations and unnatural readings than in utterances with the default contours. Additionally, the non-defaults were not systematically the same: instead of, say, a final focus in the unmarked orders, a medial or initial focus was produced which did not necessarily match the given context, but which were typical non-defaults. What is needed to tap the differences is an experiment where the non-default contours are kept constant. To do this, the subjects must be told ahead of time what the expected contours are, and this way I believe we can get at the differences.

The lack of clear results for the non-default patterns were to be expected. These sentences violated both the semantics and the pragmatics of their orders. Since they deviate so much from the default, a normal reaction is not to read them naturally, even if an imaginary context is given. Pierrehumbert (1980) has pointed out that it is practically impossible to elicit unnatural accent patterns; the only way to produce them is to use speech synthesis. The contours under investigation were not unnatural per se, but they deviate from the garden-variety pattern, and this deviation makes them difficult to capture. I will show below sample patterns of the non-defaults, and compare them with the default contours.

My first plan was to elicit the test utterances without any context, but this failed, because for the marked orders the subjects tended to give prosodic patterns resembling the Kalevalaic meter. This was probably due to the fact that while the marked orders are indeed marked, they are very typical in poetry. And if a layman in Finland is familiar with a poetic meter, it is most likely the Kalevala-meter (which Ilse Lehiste would claim is the crystallization of the metrical structure of Finnish). To get more idiomatic responses I then added the contexts; one of the original subjects was included in the final reading studied here.

The sorting of the utterances into unmarked and marked was done by their word order; only those that contained hesitations and blatant oddities were excluded from consideration. An example of a blatant oddity would be the Kalevalaic pattern. The neutral contours were no different from what the previous study predicted: the finite verb was
accentless but the NPs had a L+H* accent. The last accent was often rather low, apparently due to final lowering (Liberman and Pierrehumbert 1984; Silverman 1987; Pierrehumbert & Beckman 1988). The neutral contour will be illustrated below in comparisons with marked contours.

The following illustrate the default contours for the marked orders, (20) is contrastive and (21) emphatic. As we can note, the patterns are the same.

![Graphical representation of the contours]

[ VENALAISIA rannalle ilmestyi ]
'it was Russians that appeared on the beach'

Figure 20. The default contour the contrastive order (TAR)

![Graphical representation of the contours]

[ MUODOSTUI saveen vanoja ]
'Grooves DID form into the clay'

Figure 21. The default contour for the emphatic order

As stated above, there are two expected patterns for the initial focus: one where there are no accents after it and one where there are. The contours above are the typical case: only one accent per utterance. The cases with post-focal accents were so few that it is of no
interest to even give any ratios of them; for each speaker there were only two or three.

The following illustrates a curious phenomenon which was produced occasionally by the females. There is an initial focus and a post-focal accent. The post-focal accent, however, has largely the same pitch height as the first and it is not on the stressed syllable of the second word but on the last syllable of the initial verb; this only occurred with verb-initial orders. In Finnish the last syllable definitely does not carry primary word stress, though it may have a secondary stress if it is heavy and the word has a certain number of certain kinds of syllables (Sadeniemi 1949; Carlson 1979). We may suggest that the stress was shifted one syllable back from the next word, but the pragmatic value of the two accent verb is not the same as when the accent is on the second word. When the second accent is on the second word, the function of the utterance is the default emphasis. With the second accent on the last syllable of the verb there is an additional affective component of insistence. This pattern was produced only with the verb forms which had a heavy last syllable, namely ajelehtii, ilmestyi, and muodostui; see the examples below.

[ ILMESTYI rannalle venäläisiä ]
'Some Russians DID appear on the beach'

Figure 22. Two accents on the emphatic verb (TAR).
Figure 23. Two accents on the emphatic verb (JAA)

The contours in (20) and (21) showed the default accentual patterns for the marked word order alternants. (22) and (23) illustrated one non-default. Next I will show some of the non-defaults for the unmarked and the verb-initial orders. Because it was not possible to show statistically what the potential differences of the following patterns are from the defaults, this section should be considered suggestive only. Though this is suggestive, I think it is strongly so, because the differences that I propose are clearly perceived, and the utterances with the non-default patterns have different pragmatic contexts from the defaults. As I noted above, a study is now needed where the non-defaults are kept constant, and then these will be compared with the default. It may turn out that factors other than F0-contour will have to be studied, but my point is that if we hear a difference and if there is a pragmatic difference, too, then there might indeed be one.

The first case involves the initial partitive subject. The following figures show pairs where in the first member we have the default order for the constituents, (24) and (26), and in the second, (25) and (27), we have a marked order. In the first pair, (24) and (25), we have a proper noun subject, whose unmarked position is initial.
[ Minna ui lammessa ]
'Minna is swimming in the pond'

Figure 24. Neutral SVX utterance with an initial proper noun subject (JAA)

[ Lammessa ui MINNA ]
'It is MINNA who is swimming in the pond'

Figure 25. Marked XVS utterance with final proper noun subject (JAA)

In (26) and (27) we have a transitive clause whose subject in an abstract noun anemia which is neutrally final.
Figure 26. Unmarked OVS transitive clause with final abstract noun subject (TAR)

Figure 27. Marked SVO transitive clause with initial abstract noun subject (TAR)

We can see that the final accent in the non-default instances (25) and (27) is relatively higher than it is in the default cases (24) and (26). But as noted above, it was not possible at this point to establish statistically what the difference between the two is. The second accent in the marked patterns sounds equally high or higher than the first one, which is what we expect since their pitch height is about the same or higher than that of the first accent.

The following illustrates still the same pattern as the above but the subject is in partitive. Initially it is marked and finally unmarked.
The contours with both initial and final focus, e.g., emphatic orders with have a partitive subject in the 'IdentDef position' showed the following kind of pattern. The first figure (30) has the default contour for the emphatic order; the final subject is in partitive. The second example (31) shows the same with the partitive subject medially where it would be interpreted as IdentDef without the marked accent pattern.
Figure 30. Default contour for emphatic VXS (JYR)

Figure 31. Emphatic VSX order with initial and final focus (JYR)

This pattern was clearly different from the default for this order by having two accents as opposed to one in the default. The contour in (31) also illustrates how the final focus pulls up the accent. The pitch range is reset at the focus, and thus the L of the focused L+H* is higher than in the neutral case. We see this in the last two vowels in hevosia which start to anticipate this increase.

This last section has illustrated some of the non-default intonation contours which are tentatively proposed. I gave 'par excellence'-examples, but in some instances with the unmarked word orders the differences in the contour shapes were not as clear as here. I suspect that in cases like the above the differences between the default and the non-default can be established statistically, once
the differences are kept constant, but that there is a 'grey' area where the two are so close to each other that the difference seems to disappear. What is needed is a careful study where the various patterns are kept constant in order to make reliable comparisons, and perception tests are also in order to see if a cut-off point between the default and non-defaults can be established. I believe that there are differences because we can hear them, but what they exactly are is still a mystery.

5.5. Summary

In this chapter I proposed to analyze intonation in Finnish in terms of one complex accent, \( L+H* \), and two boundary tones, \( L\% \) and \( H\% \). In the neutral contour all accents are equally prominent; the accents form a smooth downstepping pattern, and the finite verb is accentless. The marked word orders have an initial focus. The experimental data confirm the predictions made in the previous chapter concerning the default accent patterns. The results for the non-defaults, however, are still only suggestive, and more study is needed to establish them. But just the fact that the subjects produced only with difficulty natural utterances of sentences where the lexical items violated the pragmatics and semantics of the sequence supports my proposal that word order in Finnish indeed encodes specific semantic and pragmatic values.
CHAPTER VI

CONCLUDING REMARKS

When we look at languages in actual use, we have to recognize that they form highly integrated systems. Construction theory captures this interpenetration 'par excellence'. Syntactic constructions are like the Saussurean coins where on one side we have a specific form which conventionally encodes the meaning and/or pragmatic value of the other side. The exercise at hand exemplifies how syntax, pragmatics, semantics and phonology in Finnish work closely together in constructions.

If we accept the intimate association of meaning and function with form even at the syntactic level, we can no more maintain the sharp distinction between knowledge of language and knowledge about language espoused by, e.g., Green (1982). She proposes a strict separation between knowing the form, on the one hand, and knowing how to use the form, on the other. But if the form is partly individuated by what it means or by its pragmatic function, then knowing it entails knowing how to use it. To change Green's analogy, to know what a hammer is, it is not sufficient to know the formal properties of it. We do not know what a hammer is just from knowing the proportions of the head, neck and the handle, etc. We know what it is only if we also know what it is used for. In the domain of language, knowing a form is not disconnected from the knowledge of how to use it and what it means, but rather, the knowledge of a form includes knowing its use and meaning.

If the fundamental function of language is to serve as an instrument of communication, then practically every element in the system participates in playing this role. There are probably several totally arbitrary characteristics in every language, too, which do not directly seem to serve any clear communicative or other function. This is an inevitable consequence of the conventionality and arbitrariness of language in general, and the fact that languages are the product of a long history. But even the apparently arbitrary aspects of these systems may ultimately be traceable to the functions of language. For example, Donegan and Stampe (1983) propose that whole language typologies are fundamentally motivated by one consideration - the facilitation of
communication. The assumption made here that we have linguistic signs, not just at the level of words, but in syntax, too, illustrates the functional motivation. Language users have a shared inventory of conventional signs at various levels at their disposal. This reduces the number of non-conventional operations needed in both the production and comprehension of the text — and this facilitates communication.

I have proposed an analysis of Finnish existential clauses, and implicitly of all clause types which have free word order, in terms of the immediate constituency only. As a result Finnish has a whole constellation of e-clauses, which constellation is unified by both form and meaning. The pragmatic values of word order transcend individual clause types, and therefore word order was treated independently of clauses. Among the six logically possible word order variants we can identify three Sequence Constructions with specific pragmatic values: the verb medial orders are unmarked, the verb-final ones encode a contrast on the initial constituent, and the verb-initial ones emphatically assert the proposition. Clauses with restricted word order conform to the general pragmatic scheme of word order proposed, but these clauses may also encode something additional, e.g., possession, by the sequencing.

In the Sequence Constructions each NP position encodes the definiteness of the NP in question. In the unmarked orders the initial NP is interpreted as IdentDef and the final as IdentIndef by default; the marked orders encode this distinction, too. These readings are most transparent for the subjects, while, e.g., NPs with objective cases additionally involve the expression of aspect, which obscures the definiteness readings. The quantitative definiteness of the NPs interacts with identifiability so that partitive subjects, which denote QuantIndef entities, are interpreted as IdentIndef. All of these readings are defaults which may be overridden by various morpholexical means and/or by intonation.

I also proposed a pitch-accent analysis of Finnish intonation for accents are a central formal concomitant of the Sequence Constructions. The experiment conducted, which was essentially investigative in nature, confirmed the stipulated default accent patterns. An attempt was also made to elicit non-default contours but the results are this far only suggestive, and more research is needed.

The basic goal of this study was to demonstrate how the various components of language are elaborately braided together in syntactic constructions. There are many levels of constructions but only the clausal level was examined here. Another level, the phrasal construction, however, was implicitly present in that the meaning of the phrases was relevant in the sequence constructions. There is some variability in sequencing also within the NP in Finnish and this alternation, too, has pragmatic consequences. The
idea of divorcing sequencing from immediate constituency would thus work at the phrasal level, too. The separation of immediate constituency from sequencing is not new, but it is novel in the treatment of Finnish. It also gives a more global view of free word order in general.
APPENDIX

Instructions for the subjects, and the complete corpus from which the test sentences were a subset.

Nimi:

Ikä:

Koulutus:

Kotipaikka Suomessa:

Missä päivän Suomea olet viettänyt suurimman osan elämästäsi ja minkä ikäinen olit tässä vaiheessa? Jos näitä paikkoja on monta, luettele ne kaikki.

Puhu(i)vatko vanhempasi suomea äidinkielenään?


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(A. Mitä sitten tapahtui?) B. Minua puri käärme.
(A. Liisaa puri käärme.) B. Minua käärme puri!
(A. Sinua ei purrut käärme.) B. Puri minua käärme!
(A. Liisaa puri käärme. B. Ei ole totta!) Käärme puri minua!
(A. Sinua puri joku itikka.) B. Käärme minua puri!
(A. Se käärme ei ole koskaan purrettu ketään.) B. Puri se käärme minua!

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(A. Mitä sitten tapahtui?) B. Minna meni myllylle.
(A. Leila meni myllylle.) B. Minna myllylle meni!
(A. Minna meni rannalle.) B. Myllylle Minna meni!
(A. Kukahan sinne myllylle loppujen lopuksi meni?) B. Myllylle meni Minna!
(A. Minna ei mennyt myllylle.) B. Meni Minna myllylle!
(A. Kukaan ei mennyt myllylle.) B. Meni myllylle Minna!

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(A. Mitä ruokalaji vadilla on?) B. Vadilla on velli.
(A. Velli ei ole vadilla!) B. On velli vadilla!
(A. Vadilla ei ole mitään!) B. On vadilla velli!
(A. Puuro on sitten vadilla?) B. Velli vadilla on!
(A. Velli on kattilassa.) B. Vadilla velli on!

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(A. Mitä vadilla on?) B. Vadilla on velliä.
(A. Missä on velliä?) B. Velliä on vadilla!
(A. Vadilla ei ole velliä!) B. On vadilla velliä!
(A. Missään ei ole velliä!) B. On velliä vadilla!
(A. Vadilla on puuroa.) B. Velliä vadilla on!
(A. Velliä on kattilassa.) B. Vadilla velliä on!

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(A. Mitä tapahtui?) B. Minnaa vaivaa anemia.
(A. Liisaa vaivaa anemia. B. Olet vähärrässä.) Anemia vaivaa Minnaa!
(A. Maijaa vaivaa anemia.) B. Minnaa anemia vaivaa!
(A. Minnaa vaivaa reumatismi. B. Ei ole totta!) Anemia Minnaa vaivaa!
(A. Minnaa ei vaivaa anemia.) B. Vaivaa Minnaa anemia!
(A. Ketään meistä ei vaivaa anemia.) B. Vaivaa anemia Minnaa!

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(A. Mitä sinä katset?) B. Järvellä ajelehtii levää.
(A. Joella ajelehtii levää.) B. Järvellä levää ajelehtii!
(A. Järvellä ei ajelehdi levää!) B. Ajelehtii järvellä levää!
(A. Järvellä ajelehtii sammalta.) B. Levää järvellä ajelehtii!
(A. Missähän sitä levää ajelehtii?) B. Levää ajelehtii järvellä!
(A. Levää ei ajelehdi järvellä!) B. Ajelehtii levää järvellä!

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(A. Mitä sinä katset?) B. Järvellä ajelehtii veneitä.
(A. Järvellä ajelehtii kanooteja.) B. Veneitä järvellä ajelehtii!
(A. Järvellä ei ajelehdi veneitä.) B. Ajelehtii järvellä veneitä!
A. Missä niitä veneitä ajelehtii? B. Veneitä ajelehtii järvellä.
A. Veneitä ei ajelehdi järvellä. B. Ajelehtii veneitä järvellä!
A. Veneitä ajelehtii joella. B. Järvellä veneitä ajelehtii!

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A. Mitä sinä katelet? B. Järvellä ajelehtii vene.
A. Järvellä ajelehtii kanootti. B. Vene järvellä ajelehtii!
A. Järvellä ei ajelehdi vene.) B. Ajelehtii järvellä vene!
A. Vene ajelehtii joella.) B. Järvellä vene ajelehtii!
A. Mitä siellä on?) B. Vene ajelehtii järvellä!
A. Vene ei ajelehdi järvellä.) B. Ajelehtii vene järvellä!

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A. Mitä tapahtui?) B. Hevonen ui lammessa.
A. Mitä tapahtui?) B. Lammessa ui hevonen.
A. Lammessa ei uinut hevonen.) B. Uk lammessa hevonen!
A. Hevonen ei uinut lammessa!) B. Ui hevonen lammessa!
A. Hevonen ei joessa.) B. Lammessa hevonen ui!
A. Lammessa ui lehmä.) B. Hevonen lammessa ui!

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A. Mitä tapahtui?) B. Lammessa ui hevosia.
A. Missä hevosia ui?) B. Hevosia ui lammessa.
A. Hevosia ui joessa.) B. Lammessa hevosia ui.
A. Lammessa ui lehmä.) B. Hevosia lammessa ui.
A. Lammessa ei ui hevosia.) B. Ui lammessa hevosia.
A. Hevosia ei näytä uivan missään.) B. Ui hevosia lammessa.

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A. Mitä sadussa tapahtui seuraavaksi?) B. Vuorelle ryömi menninkäinen.
A. Mitä eilen tapahtui?) B. Vuorelle ryömi eilen menninkäinen.
A. Mitä eilen tapahtui?) B. Menninkäinen ryömi eilen vuorelle.
A. Menninkäinen ryömi eilen kalliolle.) B. Vuorelle menninkäinen eilen ryömi!
A. Milloin menninkäinen ryömi vuorelle?) B. Vuorelle menninkäinen ryömi eilen.
A. Menninkäinen teki eilen?) B. Eilen menninkäinen ryömi vuorelle.
A. Kuka eilen ryömi vuorelle?) B. Eilen ryömi vuorelle menninkäinen.
A. Mitä sadussa tapahtui seuraavaksi?) B. Menninkäinen ryömi vuorelle.

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A. Mitä vuorelle ryömi?) B. Vuorelle ryömi menninkäisä.
A. Mitä vuorelle ryömi eilen?) B. Vuorelle ryömi eilen menninkäisä!
A. Minne ryömi eilen menninkäisä?) B. Menninkäisä ryömi eilen vuorelle!
A. Menninkäisä ryömi eilen kukkulalle.) B. Vuorelle menninkäisä eilen ryömi!
A. Vuorelle menninkäisä ryömi toissapäivänä. B. Ei ole totta!) Vuorelle menninkäisä ryömi eilen!
(A. Minne ryymi eilen menninkäisiän?) B. Eilen menninkäisiän ryymi vuorelle!
(A. Mitä ryymi eilen vuorelle?) B. Eilen ryymi vuorelle menninkäisiän!
(A. Minne menninkäisiän ryymi?) B. Menninkäisiän ryymi vuorelle.

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(A. Mitä tapahtui?) B. Minna ui lammessa.
(A. Milloin Minna ui lammessa?) B. Minna ui lammessa lauantaina.
(A. Kuka ui lammessa?) B. Lammessa ui Minna.
(A. Kuka ui lammessa lauantaina?) B. Lauantaina ui lammessa Minna.
(A. Kuka ui lauantaina lammessa?) B. Lauantaina lammessa ui Minna.
(A. Mitä tapahtui?) B. Minna ui lauantaina lammessa.
(A. Missä Minna ui lauantaina?) B. Lauantaina Minna ui lammessa.

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(A. Missä viini on?) B. Viini on leilissä.
(A. Leilissä ei ole sitten mitään!) B. On leilissä viini!
(A. Viini ei ole leilissä!) B. On viini leilissä!
(A. Maito on leilissä.) B. Viini leilissä on!
(A. Viini on karahvissa.) B. Leilissä viini on!
(A. Nyt unohdin, mikäs siellä leilissä on?) B. Leilissä on viini!

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(A. Mitä siellä on?) B. Leilissä on viiniä.
(A. Viinnä on ole leilissä!) B. On viiniä leilissä!
(A. Leilissä on mehua.) B. Viinnä leilissä on!
(A. Leilissä ei ole viiniä.) B. On leilissä viiniä!
(A. Viinnä on karahvissa.) B. Leilissä viinnä on!
(A. Missä viinnä on?) B. Viinnä on leilissä!

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(A. Mitä tapahtui?) B. Nainen meni rannalle.
(A. Mitä tapahtui?) B. Rannalle meni nainen!
(A. Nainen meni kaupungille.) B. Rannalle nainen meni!
(A. Rannalle meni mies.) B. Nainen rannalle meni!
(A. Rannalle on menyt nainen.) B. Meni rannalle nainen!
(a. Nainen ei mennyt rannalle.) B. Meni nainen rannalle!

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(B. Mitä tapahtui?) A. Anna meni rannalle.
(A. Kuka meni rannalle?) B. Rannalle meni Anna!
(A. Anna meni rannalle.) B. Anna rannalle meni!
(A. Anna meni kaupungille.) B. Rannalle Anna meni!
(A. Anna on menyt rannalle.) B. Meni Anna rannalle!
(A. Kukaan ei mennyt rannalle.) B. Meni rannalle Anna!

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(A. Minne naisia meni?) B. Naisia meni rannalle.
(A. Mitä tapahtui?) B. Rannalle meni naisia!
(A. Kuka meni rannalle?) B. Naisia rannalle meni!
(A. Naisia meni talolle.) B. Rannalle naisia meni!
(A. Rannalle on menyt naisia.) B. Meni rannalle naisia!
(A. Naisia on menyt rannalle.) B. Meni naisia rannalle!

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(A. Mitä tapahtui?) A. Marjaana meni myllylle.
(A. Minne Marjaana meni eilen?) B. Marjaana meni eilen myllylle.
(A. Milloin Marjaana meni myllylle?) B. Marjaana meni myllylle eilen!
(A. Milloin Marjaana meni myllylle?) B. Myllylle Marjaana meni eilen!
(A. Minne Marjaana meni eilen?) B. Eilen Marjaana meni myllylle!
(A. Marjaana ei mennyt eilen myllylle.) B. Meni Marjaana eilen myllylle!
(A. Aino meni eilen myllylle.) B. Marjaana eilen myllylle meni!
(A. Marjaana meni eilen kaupungille.) B. Myllylle Marjaana eilen meni!
(A. Kuka meni eilen myllylle?) B. Eilen myllylle meni Marjaana!
(A. Kuka meni myllylle?) B. Myllylle meni Marjaana!

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(A. Mitä tapahtui?) B. Myllylle meni norjalaisia.
(A. Ketä myllylle meni eilen?) B. Myllylle meni eilen norjalaisia.
(A. Milloin norjalaisia meni myllylle?) B. Myllylle norjalaisia meni eilen!
(A. Milloin myllylle meni norjalaisia?) B. Norjalaisia meni myllylle eilen!
(A. Minne norjalaisia meni eilen?) B. Eilen norjalaisia meni myllylle!
(A. Norjalaisia ei mennyt eilen myllylle!) B. Meni norjalaisia eilen myllylle!
(A. Myllylle meni eilen ruotsalaisia.) B. Norjalaisia eilen myllylle meni!
(A. Norjalaisia meni eilen joelle.) B. Myllylle norjalaisia eilen meni!
(A. Minne norjalaisia meni eilen?) B. Norjalaisia meni eilen myllylle. (A. Minne norjalaisia meni?) B. Norjalaisia meni myllylle.

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(A. Mitä tapahtui?) B. Norjalaiset menivät myllylle.
(A. Mitä tapahtui?) B. Norjalaiset menivät eilen myllylle.
(A. Milloin norjalaiset menivät myllylle?) B. Norjalaiset menivät myllylle eilen!
(A. Milloin menivät myllylle norjalaiset?) B. Myllylle norjalaiset menivät eilen!
(A. Minne norjalaiset menivät eilen?) B. Eilen norjalaiset menivät myllylle!
(A. Norjalaiset eivät mennyt eilen myllylle.) B. Menivät norjalaiset eilen myllylle!
(A. Ruotsalaiset menivät eilen myllylle.) B. Norjalaiset eilen myllylle menivät!
(A. Norjalaiset menivät eilen joelle.) B. Myllylle norjalaiset eilen myllylle menivät!
(A. Ketkä menivät eilen myllylle?) B. Myllylle menivät eilen norjalaiset!
(A. Ketkä menivät myllylle?) B. Myllylle menivät norjalaiset!

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(A. Mitä tapahtui?) B. Merellä ajelehtiä purjeveneitä.
(A. Missä purjeveneitä ajelehtiä?) B. Purjeveneitä ajelehtiä merellä!
(A. Purjeveneitä ajelehtii joella.) B. Merellä
purjeveneitä ajelehtii!
(A. Merellä ajelehtii soutuveneitä.) B. Purjeveneitä
merellä ajelehtii!
(A. Merellä ei ajelehdi purjeveneitä.) B. Ajelehtii
merellä purjeveneitä!
(A. Purjeveneitä ei ajelehti merellä.) B. Ajelehtii
purjeveneitä merellä!
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(A. Mitä tapahtui?) B. Rannalle ilmestyi venäläisiä.
(A. Rannalle ei ilmestynyt venäläisiä.) B. Ilmestyi
rannalle venäläisiä!
(A. Rannalle ilmestyi suomalaisia.) B. Venäläisiä
rannalle ilmestyi!
(A. Venäläisiä ilmestyi pihalle.) B. Rannalle venäläisiä
ilmestyi!
(A. Venäläisiä ei ilmestynyt rannalle.) B. Ilmestyi
venäläisiä rannalle!
(A. Minne venäläisiä ilmestyi?) B. Venäläisiä ilmestyi
rannalle!
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(A. Mitä tapahtui?) B. Rannalle ilmestyi venäläinen.
(A. Mitä tapahtui?) B. Venäläinen ilmestyi rannalle.
(A. Venäläinen ilmestyi pihalle.) B. Rannalle venäläinen
ilmestyi!
(A. Rannalle ilmestyi suomalainen.) B. Venäläinen rannalle
ilmestyi!
(A. Venäläinen ei ilmestynyt rannalle.) B. Ilmestyi
venäläinen rannalle!
(A. Rannalle ei ilmestynyt venäläinen.) B. Ilmestyi
rannalle venäläinen!
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(A. Mitä tapahtui?) B. Saveen muodostui vana.
(A. Saveen ei muodostunut vanaa.) B. Muodostui saveen
vana!
(A. Vana muodostui hiekkaan.) B. Vana muodostui saveen!
(A. Hiekkaan muodostui vana.) B. Saveen vana muodostui!
(A. Vana ei muodostunut saveen.) B. Muodostui vana saveen!
(A. Saveen muodostui kuoppa.) B. Vana saveen muodostui!
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(A. Mitä tapahtui?) B. Saveen muodostui vanoja.
(A. Mihin vanoja muodostui?) B. Vanoja muodostui saveen!
(A. Saveen ei muodostunut vanoja.) B. Muodostui saveen
vanoa!
(A. Saveen muodostui kuoppia.) B. Vanoja saveen muodostui!
(A. Hiekkaan muodostui vanoja.) B. Saveen vanoja
muodostui!
(A. Saveen ei muodostunut vanoja.) B. Muodostui saveen
vanoa!
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(A. Enää mitä muuta?) B. Pöydällä on sitä viiniä!
(A. Mitä muuta?) B. Se viini on pöydällä!
(A. Enää missä sitä viiniä on?) B. Sitä viiniä on
pöydällä!
(A. Enää mitä muuta?) B. Pöydällä on se viini!
(A. Mitä tapahtui?) B. Maijalla on omenia!
(A. Kenellä on omenia?) B. Omenia on Maijalla!
(A. Mitä Maijalla on?) B. Maijalla on omena!
(A. Missä omena on?) B. Omena on Maijalla!
(A. Marjukalla on omena.) B. Maijalla omena on!
(A. Maijalla on kirsikka.) B. Omena Maijalla on!
(A. Maijalla ei ole omenaa.) B. On Maijalla omena!
(A. Omena ei ole Maijalla.) B. On omena Maijalla!
(A. Mita tapahtui?) B. Nämä vaaleat verhot olivat pöydän alla.
(A. Mita tapahtui?) B. Vaaleat verhot olivat pöydän alla.
(A. Mita tapahtui?) B. Vaunujen alle ryymi suloinen vauva.
(A. Mita tapahtui?) B. Pieni suloinen vauva ryymi vaunujen alle.
(A. Mita tapahtui?) B. Pöydän alla oli vaalieita verhoja.
(A. Missä niitä vaalieita verhoja oli?) B. Vaalieita verhoja oli pöydän alla.
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