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ON THE SEMANTICS OF TENSE AND ASPECT IN BULGARIAN

Academic dissertation
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Helsinki 1985
For Tuula
ABSTRACT

On the Semantics of
Tense and Aspect in Bulgarian

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The main topics of the dissertation are temporal reference and the denotative properties of aspect in Modern Bulgarian. There is also a chapter on modal meanings conveyed by tense forms.

Temporal reference is described by means of the notions point of speech, point of reference, and point of the event (situation). The principal novelties are that (i) there is no fixed point of reference in the aorist, and that (ii) this system of temporal reference is linked to the denotative properties of aspect through the overall notion of boundedness. It is shown that the opposition of the aorist and imperfect is aspectual precisely because there is a difference of temporal reference between them. The imperfect, the present tense, and the imperfective aspect all share the property of non-boundedness.

The perfect tense characterizes the present state of the discourse world, albeit indirectly, by referring to a past situation. In addition, the Bulgarian indicative perfect is neutral as to evidential modality, i.e., neutral with respect to the distinction between "witnessed" and "reported" forms. There have arisen new perfect-like evidentially neutral tenses in Bulgarian, but they do not yet constitute a separate mood.

The main denotative function of aspect is to indicate division into situation classes, viz. events (denoted by the perfective and the aorist) and states and processes (denoted by the imperfective, the imperfect, and the present tense). The aspectual structure of a sentence can contain several distinct layers; a model of aspectual nesting, applicable to different languages, is presented.
БЪЛГАРСКА АНОТАЦИЯ
За семантиката на вид и време в българския език
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В дисертацията се разглеждат денотативните свойства на вида и временната ориентация в съвременния български език. Съдържа и глава върху модалните значения, изразявани чрез глаголни форми за време.

Темпоралната ориентация се описва с помощта на трите понятия градиент момент, ориентационен момент и момент на събитие / ситуациията, предлагени от Х. Райхенбах. Главните новости са, първо, че аористът няма никакъв неподвижен ориентационен момент и, второ, че тази система на темпорална ориентация се свързва с денотативните свойства на вида чрез общото понятие пределност. Оказва се, че опозицията аорист : имперфект е видово, но именно заради това и временно. Имперфектът, сегашно време и несъвршения вид съдържат общ признак "непределност".

Формите за перфект описват сегашното положение на нещата, макар и непряко, отнасяйки го до минали събития и други минали ситуации. Освен това българският изявителен перфект е неутрален относно свидетелската модалност, т.е. относно разликата между свидетелски и преизказни форми, в българския език са се появили нови перфектоподобни глаголни времена с неутрална свидетелска модалност, но те още не образуват отделно наклонение.

Главната денотативна функция на вида е да изразява ситуацияцияния клас, т.е. дали дадена ситуация е събитие (денотирано от свършения вид и аориста) или пък състояние или процес (денотиран от несъвршения вид, имперфекта и сегашно време). Аспек туалната структура на изречението може да съдържа редица аспективни слоеве. В българския език има поне седем такива слоя: характерът на глаголната лексема (начинът на действието); опозицията свършен / несъвршен вид; разликата между аорист, имперфект и сегашно време; прякото допълнение; останалите актатни; свободните обстоятелствени пояснения за продължителност и кратност; и, като най-външен слой, контекстът на изказването в дискурса. Теорията на аспектуалните слоеве обяснява някои важни употреби на свършения имперфект и несъвршения аорист, както и на т.н. темпорално дефективни глаголи от типа "написвам".
I had thought that writing a doctoral dissertation would be a solitary activity, a lonely wrestle with great problems of science. I was surprised to notice how many people became involved with my work in some way or another, and how many were ready to become involved, helping me with their advice and support. It did not really matter that I myself was unable to solve all the problems.

Earlier versions of the manuscript were read by Birgitta Englund Dimitrova (twice), Kjetil Rå Hauge, Fred Karlsson, Marja Leinonen, Svein Mønnesland, and Arto Mustajoki. They pointed out mistakes and gave invaluable advice, but they do not share responsibility for those mistakes that remain. I also wish to thank Petăr Pašov, who always had time to discuss my problems and actually solved many of them, as well as Orvokki Heinämäki and Esa Itkonen, who read Ch. 3 and part of Ch. 1, respectively.

During my studies I have had several good teachers of Slavic and general linguistics. I wish to single out Boris Paraškevov, my first teacher of Bulgarian; Jukka Hyrkkänen, whose untimely death deprived me of the possibility of utilizing his wide knowledge of the South Slavic languages; and Fred Karlsson, who always believed in me more than I did, and shaped me as a linguist.

There are many more people to whom I owe a debt of gratitude for this book. I have been fortunate to discuss various problems with Harry Halén, Antti Hautamäki, Svetomir Ivančev, Miroslav Janakiev, Kristo Părvev, Albena Popova, Nils B. Theolin, and Elena Todorova. I have also had the most helpful informants: thanks are due to Kristina Suvilehto, Georgi Vălčev, Angel Todorov, and to Eero Suvilehto's and Ivan Bujukliev's students at the "Kliment Ohridski" University of Sofia. I am grateful to Willi Plöger for exotic bibliographical hints
I never had time to follow; to Giorgio Silfer and Perla Ari Martinelli for taking over some of my responsibilities outside the academic world, so as to liberate me for writing this thesis; and to Eugene Holman for checking and skillfully improving my English.

The research for, and the writing of this dissertation were made possible by a three-year grant from the Emil Aaltonen Foundation. The Department of General Linguistics at the University of Helsinki provided the research facilities I needed. I am indebted to all the staff of the Department for an inspiring intellectual atmosphere. The Bulgarian and Finnish Ministries of Education enabled me to visit Bulgaria when I had the greatest need for native help. The Center for Bulgarian Studies at the Bulgarian Academy of Sciences provided me with literature. The Department of Slavic Languages at the University of Helsinki kindly accepted the dissertation for publication in its series; the publication was supported by a grant from the Alfred Kordelin Foundation.

I owe much to my parents Katri and Pauli Lindstedt for their continuous support during my studies. My mother-in-law Eila Montonen has been of invaluable help to all my family during the writing. The heaviest burden was carried by my wife Tuula, who saw me through the successive stages of the work, guiding me with her practical wisdom. I am greatly indebted to her, as well as to our children Helmi and Viljami, who taught me that there are things which are much more important than tense and aspect.

Helsinki, February 1985

J.L.
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A note on transliteration

Cyrillic characters are transliterated according to the ISO standard, except for "X", which is rendered as X.
1 INTRODUCTION

1.1 The Scope of the Present Study

The wealth of verbal forms in Modern Bulgarian makes this language suitable for testing general theories of the grammatical categories usually associated with the verb, such as tense, mood and aspect. This study deals with the categories of tense and aspect. Although the object of description is only the Bulgarian language (and only съвременният български книжовен език, Modern Literary Bulgarian), I hope the present book will contribute both to Slavic linguistics in general, as well as to general linguistic theory. The semantic details of the aspect opposition "perfective" / "imperfective" are not the same in all Slavic languages, but the description of this opposition in every one of them must face the same problems of general definition and characterization. Slavic verbal aspect cannot really be studied in only one language at a time. As for tense, most modern Slavic languages have lost the complicated system Bulgarian still preserves; but the description of the Bulgarian system is most important for a proper understanding of the classical language of Slavic philology, Old Church Slavonic (Old Bulgarian), and the older forms of all the other Slavic languages, such as Old Russian -- not to mention Common Slavic.

A book of this modest size cannot claim to be a comprehensive treatise of the approximately nine tenses and two aspects of the Bulgarian verb. The focus will be on those oppositions which I have, rightly or wrongly, considered theoretically most interesting, i.e. "perfective" / "imperfective", "аорист" / "imperfect", and the opposition of the perfect, on the one hand, and the aorist and imperfect, on the other. I do
not know if I really have identified the three central questions, but I do not think I have chosen the three easiest problems either. I am aware that I have not produced anything comparable to Adrejčin's (1938) dissertation. His concise work, written in Polish, contains all the basic tenets that most descriptions of the Bulgarian verb have adhered to ever since. I hope I will be able to show that Adrejčin's tradition needs revisions, even radical ones; but at the same time I admit that we must still often turn to his Cracow dissertation to find the most lucid formulations of various problems.

The chapter division of this study is not made according to the grammatical oppositions discussed, but according to the semantic domains the grammatical forms refer to. After this introductory chapter, Ch. 2 deals with time reference, which is not a matter of tense alone. Ch. 3 is concerned with aspectuality and describes not only the perfective / imperfective opposition, but also some functions of the aorist / imperfect distinction. Ch. 4 takes up some questions of modal meaning, insofar as it interacts with and is carried by tense and aspect forms. This division can be seen as a way of answering (or perhaps avoiding) such questions as "is the perfect really an aspect or a tense?".

As I am not a native speaker of the language I am describing, I have used several informants. They have kindly helped me to check the correctness of certain sentences and of the readings I have assigned to them. In this study the informants only become "visible" when their judgments diverge, for then I have occasionally indicated the number of informants interviewed (in connection with that particular example) and the proportion of the various judgments. But since my primary goal has been to describe some central phenomena in Bulgarian grammar rather than to determine the status of different marginal forms and rare constructions, I have not needed to do such extensive field work as, say, Roth (1979) has done in her valuable study of the reported mood.

The concentration upon semantics is meant to exclude purely pragmatic questions. This distinction is not always easy to draw, as shown by Levinson's (1983: 5ff.) inconclusive
discussion in his recent textbook. Still I believe that it is fruitful to try to divide the study of meaning into two manageable portions and distinguish between semantics as the study of meaning within the language system, and pragmatics as the study of meaning in the contextual use of language. Definitions of this kind have been opposed because "aspects of linguistic structure sometimes directly encode (or otherwise interact with) features of the context" (Levinson 1983: 8): typical examples are deictic elements, terms of address, imperative and interrogative sentences, and such lexical distinctions as rabbit / bunny (the latter being used when speaking to children, and consequently by them). There obviously must be such elements in every language: they are the links through which the system is put to use. But they too have both a semantic and pragmatic meaning: it is one thing to state the meaning of an element in terms of some general features of the possible contexts of its use, and another thing to describe the interpretations that are assigned to it in fully specified concrete contexts. It is important to note, first, that although semantics is distinguished from pragmatics, the former need not necessarily be truth-functional, and second, that semantics does not describe sentences in "null contexts". To cite Lyons, semantics describes sentences in "maximally, rather than fully, decontextualized system-sentences" (Lyons 1977: 591; cf. Esa Itkonen 1981: 105, and 1984: 166ff.).

Interpreted in this manner semantics has the function of describing meaning in terms of sentences derivable from the grammar -- i.e., "system-sentences" as defined by Lyons (1977: 387) -- whereas in pragmatics we center upon utterances (types or tokens) in their linguistic and situational contexts. Pragmatic competence tells speakers how to make use of their grammatical competence to perform speech acts. But these definitions naturally imply that the study of discourse is much closer to pragmatics than to grammar proper. Discourses consist of utterances, not of sentences. Furthermore, the language system only contains some rules about the correct structure of discourse but not enough of them to define a well-formed discourse in the same sense as a well-formed sentence can be
defined. There can be no generative "text-grammars": the con-
struction of a successful discourse is a pragmatic act (cf. Esa
Itkonen 1984: 82, 178ff.). On the other hand, in natural lan-
guages there are certainly lots of elements and rules that
cannot be properly described without reference to their dis-
course functions. In research into grammatical meaning, dis-
course has to be taken into account as the central area of
interaction between language structure and language use. That
is why it cannot be said that the present study really ex-
cludes pragmatics, rather its focus is elsewhere.

Yet a further delimitation must be made. This study only
makes limited use of logical formalisms, even though many
interesting results concerning tense and aspect have been at-
tained just within the framework of formal semantics. But
formalisms are tools, after all, and results can be accepted
without commitment to use the same tools in elaborating them.

At a general level, there are two main approaches to the
study of tense and aspect, just as there are to many other
grammatical phenomena. The approaches could be named model-
oriented and data-oriented; good examples are the recent arti-
cle collections edited by Tedeschi and Zaenen (1981) and Hopper
(1982). In the former, the papers are mainly model-oriented:
they use formal semantics, test their models in English only,
and are more or less based on Vendler's (1967) classical study
of verb semantics. The mainly data-oriented papers of the
latter are looser in their description methods, adduce typolog-
ical data from different languages, and draw on Forsyth's
(1970) detailed description of Russian aspect and Comrie's
(1976) short but well-informed monograph. Only Hopper's collec-
tion tries to explain facts of tense and aspect usage, mainly
by reference to discourse factors -- but with respect to its
model-oriented counterpart it is also far more speculative and
somewhat confusing. To make the two approaches converge, we
need detailed and rigorous descriptions of a wide variety of
languages, in order for it to be possible to combine the preci-
sion of model-oriented research with the generality of typolog-
ical methods. The present study aims to be one contribution to
that direction.
1.2 On Description and Explanation

1.2.1: Describing grammatical meaning. There are two main problems in describing a grammatical category of a language, such as the category of tense. First, the semantic domain of the category should be defined, that is to say the types of semantic distinctions it encodes should be clarified. Linguists agree that the domain of tense is time reference (a notable exception is Weinrich 1964), but there is no such general agreement about the domain of aspect. Second, the meaning of each member of the category is described -- the meaning of the present tense, for example. The members of the category are usually called "morphosyntactic features", "grammemes" or, less felicitously, "forms".

A widely used method of describing the meaning of a morphosyntactic feature is to postulate one "basic" meaning and then list "submeanings" that are derivable from the basic meaning in some way or other. Thus, in Stankov's (1980) monograph on Bulgarian aspect the perfective and the imperfective are assigned a number of častni vidovi značenija ("particular aspect meanings" -- see 1.4.5 below), a notion much used in Russian aspectology. This technique goes back to the distinction Roman Jakobson (1971a/1936) made between GesamttBedeutung and Sonderbedeutung. The GesamttBedeutung should be something unitary, definable through the system of meaning oppositions in the grammar. The Sonderbedeutungen are realizations of the GesamttBedeutung in different contexts, they are its combinatorial variants (op.cit., p. 35). But they are also hierarchically ordered and one of them is the Hauptbedeutung: for example, the Hauptbedeutung of the Russian accusative case is to mark the direct object but it has other Sonderbedeutungen, too, and its GesamttBedeutung must be defined on a more abstract level. It is not difficult to see the similarity between the notion Hauptbedeutung and the modern concept of semantic prototype;
but in true prototype semantics, the *Gesamtsbedeutung* would obviously not be needed at all.

Thus, Jakobson's basic idea was to distinguish an invariant meaning and its context-dependent variants, just as we distinguish morphemes and allomorphs in describing the linguistic form. Others have contended that only one of the two levels is really needed. In his excellent monograph on the English perfect, McCoad (1978) sets out to describe what he calls "the structural meaning" of this form, to be distinguished from its "particular interpretations", based on pragmatic inferences. For example, *he has died* does not mean that "he" is dead, *he is dead* is only one of the pragmatic inferences derivable from the sentence and this inference would be canceled if the world worked in a bit different way.

The problem with McCoad's solution is that it would seem to allow there to be a truly particular interpretation in each individual utterance. In practice, however, the level that most readily lends itself to description is that of interpretation types which depend on context types and not on particular context tokens. Important interpretation types -- or *Sonderbedeutungen* -- of the perfect are the "existential perfect" and the "resultative perfect" (cf. Lindstedt 1983 and the literature cited there). Now the speaker and the hearer obviously use the same set of main interpretation types which form a kind of semantic paradigm in the language in question, so that they could be called "structural meanings" in at least equal right as the abstract "basic" meaning can. McCoad is right in saying that the "interpretations" are based on the world-models of the speaker and the hearer; but since they must share basically the same model for the communication to succeed, semantics certainly has to analyze just these matters. In a different world, *he has died* wouldn't entail *he is dead* -- but in that world to die would not have the same meaning as in our world, where dying is something irrevocable. Thus McCoad has not shown that all the interpretations of *one and the same* expression could be altered in a different world (and what would indeed count as the "same" expression in two worlds?).

In what I called the data-oriented approach there has
been a tendency towards an opposite solution: there need not be a basic invariant meaning, the description of Sonderbedeutungen is sufficient. In his cross-language comparison of the semantics of the perfect, Lloyd B. Anderson (1982) arranges the possible meanings of this tense in a kind of map, of which each language covers a range of similar meanings. "Similarity" is defined inductively: "If two particular meanings <i.e. Sonderbedeutungen></i> are often expressed by the same surface form (across a random sample of languages), then we can assume that the two meanings are 'similar' to the human mind." Anderson calls the particular meanings of the perfect also its "uses" and says that a Gesamtsbedeutung, common to all the uses, need not be present at all (p. 230, 232). Li & al. (1982) propose a similar model whereby the meaning of a morphosyntactic feature is a kind of "cluster concept": certain core meanings (kind of prototypes?) collect different other meanings around them; the latter are not necessarily the same in all languages. There is no absolute solution to the question whether a grammeme in a language should be labeled e.g. "perfect" or not; more interesting is the extent to which it overlaps with similar grammemes in other languages.

This kind of "cluster analysis" has the advantage of making the description of grammatical meaning similar to that of lexical meaning, where the prototype model has been gaining ground. However, the prototype model of lexical meaning has arisen primarily because of difficulties in describing the meanings of words in terms of absolute defining components inside one language (see Clark & Clark 1977: 464ff. and the literature cited there); the correspondences between different languages form a separate question. It can be argued that the grammatical differences between various languages can only be stated in terms of basic similarities, without which we could not know what to compare (Lindstedt 1978b). In fact, all our linguistic tradition which avoids coining totally new grammatical terms for each individual language rests on this assumption of cross-language comparability; the whole of linguistics is implicitly contrastive even if Greek and Latin grammar is no longer the measure of all things. Anderson's and Li's claim is
that the basic similarity must be sought at the level of Sonderbedeutungen, or rather Hauptbedeutungen. But it does not necessarily mean that there could not be a Gesamtbefeutung in each language; it only means that these different Gesamtbefeutungen may not be comparable (and even that remains to be shown).

There have been attempts to deny the validity of the concept of Gesamtbefeutung even in the description of a single language, to be sure. The most coherent arguments to this effect have recently been presented by Timberlake (1982), who doubts if it is worth while at all to search for an invariant meaning of a morphosyntactic category ("stalking the wild invariant"). After a careful study of some uses of Russian aspects he concludes that Sonderbedeutungen -- which he calls "semantic parameters" -- have an autonomous status: they are both sufficient and necessary conditions for "encoding", i.e. selecting the right aspect form, and they cannot be deduced from a general invariant meaning. The invariant is only "a necessary (but probably not sufficient) metastatement of internal consistency among the specific rules that map aspect parameters into morphological aspect" (p. 328). However, his arguments are mainly based on the different syntactic behavior of "durative" and "iterative" imperfective verbs in Russian -- he does not show that an even finer classification would have a really autonomous status. In principle it would be possible to say that the Russian imperfective has two invariant meanings, though they could perhaps not be called Gesamtbefeutungen. Moreover, in this work I hope to be able to show that the "durative" and "iterative" or, as I prefer to call them, continuous and habitual meanings of the imperfective, with their similarities and differences, can be accounted for within a single basic meaning of the imperfective, and we need not go to such atomistic feature matrices as have been proposed for Bulgarian verb forms by Walter (1973, 1977). But Timberlake is certainly right in emphasizing that we must not press too hard for a Gesamtbefeutung that would, as such, explain all the uses of a form.

Chatterjee (1979, 1982) has likewise expressed doubt
about the possibility of finding "basic invariant meanings" of aspect grammemes. But he does not seem to believe in static Sonderbedeutungen, or even Einzelbedeutungen, either: he denies that there could ever be an accurate explanatory or "predictive" model for grammar because the norm of the language is broken constantly in some way or another to say such things that could not be said in other way (1982: 338ff.). He cites F. Waismann: "breaking away from the norm is often the only way of making oneself understood" (p. 339, orig. emphasis). It is certainly an important property of language that it allows for creative and even norm-breaking use. Nevertheless, most of the rules of a language are observed most of the time, and when norms are creatively broken, the linguist should be able to say what it was that was broken. His or her task is not to predict what people will say or how they will use the language. The full interpretation of any utterance requires much that is beyond the grammar -- but that is why Chatterjee is not right in charging la langue with all the mysteries of la parole.

Perhaps the best way of combining the good points of all these approaches -- excluding, however, Chatterjee's descriptive nihilism -- would be to assume that the Gesamtbereutung and Sonderbedeutungen of a morphosyntactic feature are, to a certain degree, both autonomous and interdependent. The Sonderbedeutungen should be deducible from the Gesamtbereutung, but not as separate interpretation tokens for each individual utterance. Sonderbedeutungen are interpretation types: they define what are the possible realizations of the basic meaning in different contexts (i.e., context types). Moreover, the Sonderbedeutungen of a morphosyntactic feature should be related with the Sonderbedeutungen of the other features of the same category, for the semantic opposition between different grammemes does not only function on the most abstract level. Galton's (1976) aspect monograph, for instance, contains a relatively consistent brief theory of the invariant aspect meanings but his description of their Sonderbedeutungen, which he calls "functions", is incoherent, lacking a unifying scheme of classification: the imperfective present is difficult to compare with the imperfective past, or the perfective present, because
the change of one morphosyntactic feature seems to alter the whole system. Galton's "functions" are only section headings for sets of examples (the examples are actually the best yield of his book) but *Sonderbedeutungen* should be more than that.

In what follows I shall make a distinction between the meaning and interpretation of a grammeme or a word-form. The "meaning" of a morphosyntactic feature can be equated with *Gesamtwertung*, "interpretation" with *Sonderbedeutung*; I do not, however, exclude the possibility of a feature having more than one meaning. It is always a stronger hypothesis to postulate only one meaning, but if this cannot be maintained, it must be supposed that there is some kind of family resemblance between the separate meanings. (Hopper 1982: 15 speaks of categories < = grammemes> that are "long-sedimented", "with each additive meaning of a category becoming a new core to which other meanings might be added." In the same vein, Bondarko (1983b: 17) suggests that there can sometimes be a meaning nucleus around which peripheral meanings are grouped, without there necessarily being a common denominator.) The interpretation of a grammeme or lexeme is its contribution to the overall meaning of a particular sentence or utterance. By the term I generally mean the interpretation *type* (see above) if it is not an individual utterance (or text-sentence) that is discussed.

The analysis of interpretations cannot be easily assigned either to semantics or pragmatics only, because at least some interpretation types are recurrent enough to become parts of the speaker's semantic knowledge. But in the threefold ontology of language as structure, function, and process (Clark & Clark 1977: 7ff.), interpretations certainly are closer to function than to structure. For this reason they can also be called "functions" or "uses" (Bulg. *upotrebi*). I do not think that any consistent distinction could be drawn between the three terms; they simply provide different views of one and the same phenomenon.

The meaning / interpretation distinction is meant to be reminiscent not only of Jakobson's dichotomy but also of Hermann Paul's (1920: 74ff.) distinction between *usuelle* and *okkasionelle Bedeutung* -- these terms can perhaps be best translat-
ed as 'conventional meaning' and 'actual meaning'. The usuelle Bedeutung has more Umfang (= extension), while the okkasionelle has more Inhalt (= intension). It might seem that okkasionelle Bedeutung only means the interpretation tokens. This cannot, however, be the case since diachronically a particular okkasionelle Bedeutung can become a new usuelle Bedeutung (p. 84ff.), so in at least some instances it must have been the interpretation type that Paul had in mind. Paul's criteria for a word having more than one usuelle Bedeutung (mehrfache Bedeutung, p. 78ff.) are that such a word cannot be given a unitary semantic definition or if such a definition were given, the actually possible okkasionelle Bedeutungen would not cover the whole of its range.

From the meaning(s) of a morphosyntactic feature (grammeme) we must distinguish the meaning(s) of a word-form realizing that feature, because every word-form contains several morphosyntactic features and also carries its own lexical semantics. Thus, when it is said that a particular grammeme has several "functions", "uses", or "submeanings", this can mean either that it has those interpretations or that when it is combined with different lexical entries, the resulting word-forms carry those meanings.

Sometimes the notion of transposition (e.g. Isačenko 1962: 283, Bondarko 1983b: 112ff.) may be justifiable as distinct from either "meaning" or "interpretation". A good example is the praesens historicum, the historical present (which in Slavic languages is not to be considered an artifice of style of the type found in some other European languages): if we agree that the distinction between the present and past tenses has to do with present and past time reference, it is difficult to explain why one of the interpretations of the meaning 'present' would be 'past events'. The historical present cannot really be deduced from the meaning 'present time reference' since that is just what the historical present does not mean. The past events are presented as if they were present but that "as if" must be explicated: it clearly does not mean time reference as such. What we have here is a kind of conventionalized metaphor: the defining features of the present tense have
been replaced by some of its characteristic features (such as 'transience').

The traditional explanation in terms of markedness is not convincing in such cases. It may be universally true that the present tense is unmarked with respect to the past tense; but the praesens historicum is not a universal phenomenon. Some other transpositions of grammemes are even more difficult to explain with markedness. In some South Slavic dialects, the second person singular of the imperative can be used as an expressive third person singular of past habitual indicative (Mønnesland 1984: 66): what oppositions are neutralized, and just with respect to which grammemes is the imperative an unmarked form? Transpositions are a phenomenon we cannot yet do away with.

1.2.2: Grammar and ontology. Up till now we have distinguished different kinds of grammatical meanings, but not yet decided in terms of what grammatical meanings should be described. One answer is, in terms of their oppositions, and this is part of the truth. But the ultimate target must be entities beyond language since, after all, meaning involves a relation between a sign and what it stands for. Jespersen (1924: 55-57) called those entities notional categories. For him, morphosyntactic features are mediators between morphological form and the world of notions: the English "preterite" corresponds, on one side, to a set of morphological devices and, on the other side, to such notions as "past time", "unreality in present time" (the conditional meaning), and others. The linguist is interested in the notional categories "in so far as they find grammatical expression" and consequently he must not describe the world of notions as if language did not exist, but "pay the strictest attention to the already discovered syntactic categories" (op. cit., p. 58).

So far, so good. But clearly all those "notions" to which the English preterite corresponds are only semantic entities, not something that really exists outside language. The "past time" certainly can be said to exist (though there are problems
even here) but "unreality in present time" is not a name of a real-word entity, it is only the name of one meaning of the preterite, viz. that it can be used in sentences referring to unreal situations (If I knew etc.). This is what happens in lexical semantics as well: sometimes it is easy to assign a word a real-world denotatum, sometimes it is easier to describe how the word is used. The two cases can be brought closer by assuming that even when a denotatum exists, there is still a mediating concept between the word and the world. Jespersen's "notions" are just these concepts. There is nothing wrong with this, only that we have not really crossed the boundary between language and the world.

To resort to medieval terminology, we have discussed modi significandi and modi intelligendi -- can we find the way to modi essendi? Is there an ontological basis for grammatical categories? For some of them at least the answer seems to be affirmative. It seems, for example, that the basic features of part-of-speech classifications can be related to basic ontological distinctions (Lyons 1977: 438ff.): nouns correspond to "entities", verbs to "actions" and adjectives to "qualities". However, our modi essendi are not as absolute as the modi distae thought: there will be many borderline cases and then language must act as an arbitrator: "What is ontologically indeterminate may be determined differently by the grammatical categories of particular languages" (op.cit., p. 449). In this sense grammatical semantics certainly can be related to facts of human ontology.

In semantics it is possible to distinguish between notional and denotative descriptions. Notional descriptions, as defined by Jespersen, are made in terms of concepts that mediate between language and the world. Denotative descriptions go beyond those concepts and describe the denotata of words or morphosyntactic features. Far from every item of lexicon or grammar has a denotatum, and a notional description has a wider range of application; but when a denotative account can be given, it tells us more than a notional would. A denotative description does not, however, deal with the world as such -- it deals with the world man has conceptualized for himself,
with the cognitive representation of the world (Bulygina 1982: 8ff.; cf. Esa Itkonen 1984: 158-162). In this sense, we can never break the chain of concepts related to other concepts; but some concepts are as close to the world as a concept can possibly get. We can treat the conceptualization of the world as it were the world itself.

In the framework of Soviet "functional grammar" -- not to be confused with Dik's (1978) model bearing an identical name -- Bondarko (1983b: 57ff.) has recently proposed a distinction between linguistic content and cognitive content (jazykovoe i myslitel'noe soderžanie). The level of cognitive content consists of universal cognitive categories (logical and ontological, among others), whereas linguistic content, though based on that level, is determined by the structure of each particular language. Since cognitive content must obviously be realized through linguistic content (at least insofar as we are studying linguistic communication), Bondarko's model is in fact reminiscent of Halliday's (1978) position: the semantic system of one's language determines what one "can mean", it is not a mere starting point of communication, to be encoded by the lexicon and grammar, because semantics itself is the first encoding of reality. The substantial difference is that Bondarko defines his levels in cognitive terms, Halliday in social. Yet I would say that their lines of thought are parallel and that, moreover, the distinctions they make correspond to our dichotomy of denotative and notional descriptions. Bondarko's "cognitive content" is obviously such conceptualization of reality which can be used to represent reality itself, as we noted above. As for Halliday, he emphasizes that even the structure of our everyday reality is determined by social interaction (1978: 169), so his standpoint is at least not incompatible with the idea that units of grammar can and must be related to entities of reality.
1.2.3: Explaining grammar. "An explanation may be said to be a concatenated description. It does its work, not by invoking something beyond what might be described, but by putting one fact or law into relation with others." Kaplan (1964: 329) is worth quoting because it is sometimes thought that explanation is something of an entirely different nature than description is. Actually explanation only means the process of connecting pieces of description so that the whole makes sense and tells us how the world works.

According to Kaplan (1964: 327ff.), there are two models of explanation: the deductive model, in which a fact is explained by deducing it from more general principles, and the pattern model, in which "something is explained when it is so related to a set of other elements that together they constitute a unified system" (p. 333). Kaplan stresses that these are not two different kinds of explanation but merely two different "reconstructions" of it; in principle, either of them would be sufficient alone. I think this is easily seen in linguistics: if we only describe syntax but then come to see that its facts might be explained by referring to semantics, we think of the syntactic facts as being deducible from the semantic ones. But if we set out from the beginning to describe both syntax and semantics, the relations found between them form an explanation in the pattern-model sense. In the same vein, a linguist may hope to find in cognitive psychology something he can deduce his results from; but the cognitive psychologist may treat linguistic facts as part of a larger model he is building, aiming at a pattern explanation.10

These examples should have made it clear that the distinction between deductive and pattern explanation is definitely not the same as between empirical and non-empirical explanation. As Esa Itkonen (1978) has shown, "autonomous linguistics", i.e. the description of grammar and semantics as such, is not an empirical enterprise. Its principal method is explanation, i.e. conceptual analysis11; its form of explanation is generalization (Itkonen 1978: 233ff., 287ff.). Since generalizations are based on facts of intuitive linguistic knowledge, they cannot be falsified by experiments or empirical observa-
tion. They are, however, subject to different kinds of intellectual testing, for if a generalization is to serve as a genuine explanation, it must not be self-evident -- certainly not to the ordinary native speaker, whose intuition is nevertheless the ultimate test for the correctness of the generalization (cf. Galton 1976: 286). This is why a linguist engaged in autonomous description has always to be prepared for counter-evidence; and it is difficult to foresee where it may come from (cf. Esa Itkonen 1984: 132ff.).

Since generalizations are explanations, they can be cast either in the pattern-model or in the deductive model. Most descriptions of temporal and aspectual systems are more of the pattern-model type, but at least Thelin (1980b: 428-429) and Kučera (1983: 171) aim explicitly at a "deductive approach to aspect". This means that they first try to find a set of semantic primitives and then show their mapping to grammemes. Thelin's primitives are notional and his inspiration comes from generative semantics (cf. Thelin 1978: 11), while Kučera bases his description on denotative categories. My aspect analysis will be close to Kučera's but I do not venture to construct a really deductive system.12

If we require empirical explanations, we have to leave autonomous linguistics and seek psycholinguistic and sociolinguistic data. These are sometimes called "external evidence"; of course, their evidence is external not to linguistics as a whole but only to its autonomous core. It should be noted that even in psycholinguistic and sociolinguistic research the conceptual, non-empirical core is essential. In basic psycholinguistic works like Miller and Johnson-Laird's (1976) and Clark and Clark's (1977), the proportion of "hard" empirical facts may in fact be unexpectedly low. But this is just how it should be: if psycholinguistics does not yet know how the speaker or hearer accomplishes a certain task, autonomous linguistics does know what it is that should be accomplished.13

If psycholinguistic data are taken into account in writing a grammar, the resulting grammar is generally said to be "psychologically real". But the problem is that most often psycholinguistic experimentation and observation does not deal
with the internalized grammar or linguistic structures; it centers on the processes of speaking and listening (Clark & Clark 1977: 4 ff.; Slobin 1979: 58-61). In other words, it concentrates not upon competence, but upon performance. Both competence and performance imply knowledge but of different kinds: in competence it is declarative, in performance procedural, and there is no necessary isomorphism between the structures of these two knowledge types (Winograd 1981; Black & Chiat 1981; Winograd 1983: 18 ff.). It is of course true that declarative knowledge must mentally reside somewhere¹⁴ and, on the other hand, even without empirical results some conjectures can be put forward with respect to procedural knowledge (as is actually done in artificial intelligence; cf. Esa Itkonen 1984: 291ff.). But on the whole the focuses of autonomous and psychological linguistics have been on such different problems that I tend to agree with Black and Chiat (1981), who consider the term "psychological reality" (as applied to grammars) misleading. I prefer the weaker term "psychological adequacy", proposed by Dik (1978: 7-8): a psychologically adequate grammar "should not be incompatible with strongly validated psychological hypotheses about language processing" (my emphasis).

I hope my description of the Bulgarian temporal and aspectual system is psychologically adequate in the sense just defined. To a certain extent it should also fulfill the two other requirements Dik includes in "explanatory adequacy", viz. "pragmatic adequacy" and "typological adequacy" (for definitions, see ibid.). Psycholinguistics,¹⁵ pragmatics (including discourse factors), and typology (including linguistic universals) are all possible sources of "external evidence" in this kind of description. To the limited extent this analysis draws on such sources, it contains explanations of a "stronger" type than those proposed by autonomous linguistics.¹⁶ But autonomous explanations should not be disparaged, either.
1.3 Tense and Temporal Reference

The semantic domain of the category of tense is temporal reference, i.e. the location of situations\(^7\) in time. As noted by Miller and Johnson-Laird (1976: 411-412), all syntactic categories from nouns to conjunctions can express temporal information lexically; but tense is a deictic grammatical category expressed morphologically (synthetically) in verb inflection, or syntactically (analytically) with auxiliaries and particles that are part of the verb phrase, or the AUX constituent (cf. Akmajian & al. 1979). Semantically, tense is a category of the whole sentence (Lyons 1977: 678).

The model of time associated with tense is usually a time line, with past, present, and future:

\[ \text{PAST} \quad \text{PRESENT} \quad \text{FUTURE} \]
\[ \text{-----------------------------} \quad \text{X} \quad \text{-----------------------------} \]
\[ \text{"now"} \]

In temporal logic the future half of the line is often thought to be branching, reflecting all the possible courses of events (Rescher & Urquhart 1971: 68ff.). In natural language, too, the future is felt to be much less determinate than the past: at any particular moment, there is only one (real) past but always an indefinite number of possible futures. This is why there are intimate connections between futurity and modality (see section 4.2).

The present moment or "the point of speech" is the point of departure for tense systems: all situations are related to that particular point, directly or indirectly. In other words, tense is a deictic category. This general view has, however, been denied by Weinrich (1964), who polemically argues that
tense has nothing to do with deixis or time reference in general: "Mit den blossen Tempora in den Ausdrücken er singt und er sang wissen wir noch gar nichts über die Zeit des Singens" (p. 55). According to Weinrich, tense is a "zugleich sprachliches und literarisches Phänomen" (p. 42), whose function is to organize discourse. Tenses are divided into forms of the "described (besprochene) world", such as the present, future and present perfect, and those of the "narrated (erzählte) world", such as the preterite and past perfect. In both "worlds", there is a further division into tenses of the foreground and tenses of the background, the present perfect and the past perfect being examples of the latter.

In Weinrich's book there are several stimulating ideas about the function of tenses in discourse, as well as about the difference between the preterite and the present perfect, which is problematic in every tense model (Lindstedt 1983). But, on the whole, his denial of the temporality of tense is based on too naive a conception of what a theory of temporal reference might be like. He does not try systematically to account for the temporally somewhat deviant uses of tenses in terms of context. He points out, for example, that novels about the future are always written in the past tense; but of course it is part of the world of such a novel to imagine a future narrator that can tell the story as a past course of events.

An influential tense model has been proposed by the logician Hans Reichenbach (1966/1947). It is based on the three notions point of speech, point of reference and point of the event, abbreviated as S, R, and E. Some of these may coincide; in the present tense they are all simultaneous. Reichenbach's schemes for the English tenses look like this (p. 290; I have slightly simplified his diagrams):

<table>
<thead>
<tr>
<th>Tense</th>
<th>S</th>
<th>R</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Past perfect</td>
<td></td>
<td></td>
<td>E</td>
</tr>
<tr>
<td>Simple past</td>
<td></td>
<td>R=E</td>
<td>S</td>
</tr>
<tr>
<td>Present perfect</td>
<td></td>
<td>E</td>
<td>S=R</td>
</tr>
<tr>
<td>Present</td>
<td></td>
<td>S=R</td>
<td>E</td>
</tr>
<tr>
<td>Simple future</td>
<td></td>
<td>S=R</td>
<td>E</td>
</tr>
<tr>
<td>Future perfect</td>
<td></td>
<td>S</td>
<td>E</td>
</tr>
</tbody>
</table>
The progressive or extended tenses ("I had been seeing John" etc.) are interpreted to mean "that the event covers a certain stretch of time" (ibid.). This is certainly not an adequate characterization of these forms. Reichenbach's schemes for the English progressive (as well as for the French imparfait) simply extend the point-like E into a segment of line and must be considered mere makeshifts.

The key notion in Reichenbach's theory is the reference point R. Informally, it defines the speaker's temporal viewpoint. In a story consisting of simple past forms, preceding situations can be referred to with a past perfect (which shares the reference point with the simple past) but the present perfect is inappropriate in the same context. The present perfect is used to report past situations from the vantage point of the present (pp. 288-289). Reichenbach's analysis is certainly sound and intuitively appealing. There are, however, some problems with the notion of R. The future tense has actually two possible meanings (pp. 295-296):

simple future, I: "Now I shall go" \( S=R \ldots E \)

Simple future, II: "I shall go tomorrow" \( S \ldots R=E \)

In a footnote Reichenbach suggests that the French distinction *je vais voir* vs. *je verrai* is perhaps based on this difference. This may be true, but in most languages the future forms would represent these two meanings indiscriminately. Then it is better to say that there is only one meaning ("S precedes E") and that I and II above are only two possible interpretations of this difference (cf. sections 2.2.6 and 2.6).

According to Reichenbach, the familiar English (or Latin) rules of *consecutio temporum* (sequence of tenses) can be interpreted as a rule of the permanence of the reference point (op.cit., p. 293ff.). This idea is worthy of consideration, but it does not explicate the concept of R in those languages lacking a *consecutio* of this type. In Bulgarian, it is optional (Andrejčin 1976b: 280-281):
(1) i Toj dobre razbra <aorist> kakvo e stanalo <perfect>.
   ii Toj dobre razbra kakvo beše stanalo <pluperfect>.
   'He understood well what had happened.'

(2) i Toj dobre razbra kakvo stava <present> naokolo.
   ii Toj dobre razbra kakvo stavaše <imperfect> naokolo.
   'He understood well what was going on around.'

(3) i Toj dobre razbra kakvo šte stane <future> sled malko.
   ii Toj dobre razbra kakvo šteše da stane <past future> sled malko.
   'He understood well what would happen after a while.'

In ii-sentences, the sequence of tenses is observed; in i-sentences, more typical of Bulgarian, it is not -- as if we would say in English "He understood well what has happened" etc. (For a detailed analysis of consecutio in Russian, see Timberlake 1982: 318ff.)

In Bulgarian there is one tense, viz. the past future perfect (badešte predvaritelno v minaloto), for which one reference point is not sufficient. This tense is mainly used with a modal (conditional) meaning, obviously because the need for a form with such complicated time reference does not often arise in a language where consecutio temporum can be avoided. Pašov (1976a: 194) gives, however, a clearly indicative example (cf. also 2.2.1):

(4) Koj možeše da predpoloži, če skromnata takačka Valja Tereškova samo sled njakolko godini šteše da e izvršila naj-golemijat podvig i šteše da e zavladjala sårčata na všički.
   'Who could have guessed that, after only few years, the modest weaver Valja Tereškova would have performed the greatest feat and would have conquered everybody's heart.'

In the scheme for this tense, two reference points are needed: R1, placed before the point of speech, and R2, which is situat-
ed after R1. E is then placed before R2. In (4), the R of Koj možeše da predpoloži 'who could have guessed' coincides with the R1 of the embedded clause, whereas R2 is simultaneous with the time identified with the adverbial sled njakolko godini 'after few years'. This can be presented as follows:

(a) R1 ... E ... R2 ... S

But this is only one possibility derivable from the ordering of the three points: others, such as

(b) R1 ... S ... E ... R2

are in principle equally possible. The interpretation (b) would be the right one if (4) had been uttered just before Tereškova's spacecraft was launched. Similar arguments also hold for the past future and future perfect: the ordering possibilities are not exhausted by the schemes given so far. Reichenbach was aware of this (cf. p. 296-298) and proposed a system whereby the primary parameters are (i) the position of R relative to S and (ii) the position of E relative to R. The former parameter distinguishes "past", "present", and "future" tenses, whereas the latter is used to divide these further into "anterior", "simple", and "posterior" tenses.

The notion of reference point (orientacionen moment) is also used in Bulgarian grammatical literature, but without direct reference to Reichenbach's work. We will go into greater detail in Ch. 2.

Prior's (1967) tense logic presents an alternative to Reichenbach's system. Prior's basic idea is to treat tenses like operators applying to propositions, in a way parallel to modal operators. The past and future operators can be iterated so as to account for complex tenses. There is no present-tense operator because Prior thinks that the present tense "is a kind of zero tense-inflection; the presentness of a happening is simply its happening" (op.cit., p. 14). Moreover, futurity and pastness are equivalent to future presentness and past presentness, respectively, and so the present tense operator would be
superfluous, Prior argues. His tense logic will not be dis-
cussed in greater detail here because I consider Reichenbach's
system to be a more fruitful basis for describing natural
language -- in which the present tense is a tense among the
others, and there are no infinitely complex tense forms. Below
I will discuss Bernard Comrie's and Paul Needham's proposals
for elaborating Reichenbach's system.

In a lecture delivered at the University of Helsinki in
November 1983, Comrie presented a system in which there are
three kinds of tenses:

E rel S : absolute tenses
E rel R : relative tenses
E rel R rel S : absolute-relative tenses

In these formulae, rel is one of the three relations before,
after and simul ('simultaneous with'). The preterite can be
presented simply as E before S, if there is no motivation for a
separate reference point. The pluperfect and past future are
examples of absolute-relative tenses. In contrast with Reichen-
bach, Comrie does not think that the difference between the
preterite and the perfect can be described in terms of temporal
reference only: he is an adherent of the "present relevance"
theory of the perfect (see section 2.3.1). Relative tenses are
those which express temporal relations between situations with-
out reference to the point of speech, such as the Bulgarian
past participle active in (5):

(5) Vlačil raloto dâlgi godini bezropotno, toj beše veče
iznemoštjal i ostarjal.
'Having dragged the plow many years without complaining,
it had gotten exhausted and old.'
(Andrejčin & Popov & Stojanov 1977: 284)

Since forms of this kind are not deictic, it is somewhat prob-
lematic to include them among tenses (cf. below on taxis). To
many grammarians "relative tenses" are what Comrie calls "abso-
lute-relative" tenses.
In order to allow for multiple points of reference, the formulae of the relative and absolute-relative tenses can be generalized into $E (\text{rel } R)^N$ and $E (\text{rel } R)^N \text{rel } S$. The past future perfects in (4) would be described as $E$ before $R_1$ after $R_2$ before $S$. Comrie points out that $R$ is a "floating point" determined by the context. In the sentence

(6) The person sitting on that sofa was arrested for murder.

it is not clear what reference point the sitting is simultaneous with. The person could have been sitting on the sofa when he was arrested, or he could be sitting there now, having visited the jail before, or he could have been sitting there at a third moment indicated by the context.

Needham's (1975) tense logic is conceived both as an elaboration of Reichenbach's system and a criticism of Prior's proposals. Needham insists that there is only one past, present, and future, and that they cannot be iterated because "the point of view of the speaker dominates all subordinate contexts" (p. 16), so there can be no "past future" or similar tenses. (In Reichenbach's terminology, there is only the posterior past.) If we allowed a logical form like "PAST FUTURE $p$", i.e., "it was the case that it will be the case that $p$", it would mean that a statement "FUTURE $p$" was true at a past moment; but, Needham argues, a tensed statement is not true or false at a time. The same sentence used at a different time makes a different statement. Needham considers the notion of reference point to be essential for a system of tense logic: in every context, there is exactly one past, one present, and one future fixed point along which the events related may be ordered.

I do not present Needham's original formalism here because it would be too complicated for our purposes, making extensive use of one-letter symbols and superscripts. A simplified notation will do for making clear his basic technique. Tense operators are not to be compared to modal operators, they are rather quantifiers binding points of time. There are three simple tenses:
past : PASTx xA  
present : PRESx xA  
future : FUTx xA

where xA means something like 'the denotatum of A occurs at moment x' and PAST, PRES, and FUT are quantifiers of a rather special kind: they relate the variable x to a particular point, namely to the unique past, present, or future reference point understood from the context. These three formulae correspond to those Reichenbach's tense schemes in which E and R coincide (E=R). (The treatment of the future is a little different, because Needham's formula only corresponds to the scheme S ... R=E.) Inside the scope of these three main operators there can be one of the two quantifiers >> and <<, which are needed for complex tenses, for example:

present perfect = present anterior : PRESx x>>y yA  
past perfect = past anterior : PASTx x>>y yA  
past future = past posterior : PASTx x<<y yA

The expression x>>y means 'before x there is a y such that...'; x<<y means 'after x there is a y such that...'. These quantifiers imply existential quantification over points of time, which Needham considers the essence of the perfect, for instance: the situation referred to by a perfect is situated somewhere in the past, but it is not related to the past reference point. (This solution will be evaluated in subsections 2.2.4 and 2.3.2.)

It seems that Needham has not thought of the possibility of iterating the operators >> and << and so he, too, has not taken account of the past future perfect. But at least at the level of the formalism it is easy to present sentences like (4) as

PASTx x<<y y>>z zA.

Note that this is not so different from Comrie's formalism when read backwards. But the essential difference lies in Needham's
idea that not only the point of speech, but also a past and a future fixed time point are contextually given (provided some past and future situations are actually spoken of, obviously). An utterance like I was there (PASTx A) presupposes that the addressee knows or can infer when I was there; in the utterance I have been there (PRESx x>y A) there is no such presupposition. The distinction between the preterite and the present perfect cannot wholly be reduced to the two formulae just given (cf. 2.3 and 4.3), but as far as bare time reference is concerned, Needham's ideas are basically sound.

Finally some notes on what Roman Jakobson named *taxis*. It "characterizes the narrated event in relation to another narrated event and without reference to the speech event" (Jakobson 1971b: 135). The notion has generally been conceived of as temporal, though Jakobson's definition seems to allow for other (e.g. causal) kinds of relations between events, too. Taxis is what Comrie calls "relative tense"; Jakobson distinguished taxis from tense because taxis does not seem to be a deictic category (in Jakobson's terminology, it is not a "shifter" referring to the message being delivered). However, when forms expressing taxis are used in the context of forms indicating absolute tense (cf. sentences (5) and (6) above), there is obviously a way of computing the relation to S even for the situations expressed by merely "taxical" forms. The distinction between taxis and tense is blurred further by the fact that when there is no *consecutio temporum* -- cf. the i-versions of sentences (1) through (3) --, a primarily absolute or absolute-relative tense can be used in a complement clause as a merely relative form, not containing an explicit reference to the moment of speech. Hence it does not seem that taxis has the status of an independent grammatical category as tense has.
1.4 Problems of Verbal Aspect

In Slavic languages, every verb form belongs to one of the two aspects, the perfective and the imperfective. Generally there also exists a corresponding form of the opposite aspect, i.e. a form that has the same lexical meaning and realizes the same morphosyntactic features, except the aspect feature. The perfective and imperfective forms are in grammatical opposition. There exists a tremendous amount of literature on Slavic aspect, but only few theoretical results most scholars would agree on.

The category of aspect in Slavic is realized as an affixal and morphosyntactic category. It is affixal only in the sense that the markers of aspect are prefixes and suffixes; formally aspect formation cannot be distinguished from verb derivation. The problems of grammatical semantics that have intrigued linguists concern aspect as a morphosyntactic phenomenon, a category that must be taken into account in describing the form and meaning of every Slavic sentence.27

In this section, several central questions of Slavic aspectology are introduced and briefly dealt with.

1.4.1: Formal restrictions. In every Slavic language, there are morphosyntactic and syntactic restrictions on the use of aspects. To the extent that these restrictions are semantically motivated, they give important cues for the description of the meanings of aspect forms. Sometimes a morphosyntactic restriction that is absolute in one language may appear only as a tendency in another language. For example, in Bulgarian the negative imperative can only be formed from imperfective stems (sjadam 'to sit down, imperfective', sedna 'id., perfective'):
sjadaj / sedni 'sit down!'
ne sjadaj / *ne sedni 'don't sit down!'

In Russian, both the imperfective ne sadis' and the perfective ne sjad' are formally possible, but the perfective negated imperative always carries additional meanings that make its use more restricted than that of its positive counterpart (see e.g. Rassudova 1982: 139). (In section 1.5.1, the formal restrictions of the Bulgarian verb paradigm will be briefly discussed.)

The most important syntactic restriction in the use of aspect forms -- and a restriction that seems to hold in all Slavic languages -- is the ungrammaticality of a perfective form in the complement of a phasal verb, i.e., a verb denoting the beginning, finishing, or continuing of a situation, e.g. in Bulgarian:

(7) Naposledâk započva da stava(I) (*stane(P)) mnogo studeno noštem.
'The nights begin to get very cold these days.'

(The symbols "(I)" and "(P)" immediately after the verbs stand for the imperfective and perfective aspect, respectively.)

Another important syntactic restriction is the impossibility of combining perfective verbs with frequency adverbials, such as "often", "seldom", "sometimes":

(8) Nie se sreštaxme(I) (se *sreštnexme(P)) vseki den.
'We met every day.'

This rule does not hold in all Slavic languages (cf. Ivančev 1971 and Mønnesland 1984), but it must always be observed in Russian and Bulgarian.

Only a perfective verb can be used in the complement of the Bulgarian perfectives uspeja(P) 'to succeed' and uđađe(P) se 'id.' (Stankov 1976d: 38; for Russian, cf. Forsyth 1970: 236-239 and Timberlake 1982: 316-317). This may simply be due to the fact that these verbs form with their complements a
unified whole referring to a single situation, so there must be a kind of "aspect agreement". Notice that uspeja(P) and similar verbs differ from phasal verbs in that the latter determine the aspect of their complements irrespective of their own aspect -- and this is an instance of government rather than agreement. The syntactic environments where the imperfective would be ungrammatical are much more specific than those excluding the perfective.

1.4.2: Aspectual pairs. Two verbs that denote the "same" situation but differ in aspect are said to form an aspectual pair. In Russian aspectology it is customary to distinguish "prefixal pairs" and "suffixal pairs". A prefixal pair consists of a "primary", i.e. non-derived, imperfective verb and a perfective verb derived from it with a prefix, e.g. pisat'(I) -> napisat'(P) 'to write'. In a suffixal pair, a "secondary imperfective" is derived from a perfective verb by means of a suffix, e.g. podpisat'(P) -> podpisyvat'(I) 'to sign'. Sometimes a perfective participates in both a prefixal and suffixal pair, e.g. citat'(I) -> pročitat'(P) -> pročityvat'(I) 'to read'. Forsyth (1970: 44ff., 163ff.) calls such instances "trios". They are rather exceptional in Russian but quite normal in Bulgarian, where almost every perfective can serve as the basis for a secondary imperfective: piša(I) -> napiša(P) -> napisvam(I) 'to write' (in standard Russian there is no verb *napisyvat'(I)). A further difference is that, in Bulgarian, perfectives are also derived with the suffix -n-, e.g. sreštam (I) -> sreštna(P) 'to meet'; in Russian -n- is only used for deriving momentary perfectives which are generally not considered to form genuine aspectual pairs with the primary imperfectives (for the few exceptions, see Forsyth 1970: 27).

There has been much discussion about whether the two verbs forming an aspectual pair are different lexemes, or forms (or rather form groups) of one lexeme. The same question can also be put as follows: is aspect, as a morphosyntactic category, a classificatory category (like the gender of nouns) or an inflectional one (like the number of nouns)? According to a
principle first formulated by Karcevskij (1927: 106 ff.) and later supported by Maslov (1959: 168 ff.) and Isačenko (1962: 350 ff.), prefixed and suffixed pairs must be treated differently: pisat’ (I) and napisat’ (P) are two different lexemes, podpisat’ (P) and podpisyvat’ (I) are forms of the same word. Maslov (1959: 177) criticizes Koschmieder’s (1934: 7-12) and many other scholars’ “leveling” approach whereby prefixing and suffixing are not differentiated as means of aspect formation.

It is indeed natural to consider the suffixal formation of imperfectives, which is relatively regular both morphologically and semantically, as inflection and not word formation—especially in Bulgarian, where the process is virtually unrestricted. The verbs of a prefixal pair are considered different lexemes for the following three reasons (Maslov 1959: 173 ff., 1981: 191; Isačenko 1962: 350 ff.; Aronson 1977: 10-11):

(a) The prefix is never wholly devoid of lexical meaning: besides perfectivizing the verb, it always adds something to the lexical meaning too. Prefixes are used to form different Aktionsarten (cf. 3.1.4) of the original verb and their semantics is more specific than the mere feature "perfective" would be.

This is a valid objection against most of the proposed prefixal pairs, especially when the prefix alters the meaning so much that the primary imperfective cannot be used as the representative of the perfective in the historical present (where, as a rule, the imperfective must be used in Russian and Bulgarian; cf. Forsyth 1970: 37). In some instances, such as Russian delat’ (I) / sdelat’ (P) 'to do, to make', the argument is less convincing. It is generally contended that even here the prefix represents a specific Aktionsart, viz. the resultative. This of course implies that resultativity is not considered as (part of) the meaning of the morphosyntactic feature "perfective". While this is correct at a general level, it may not be true at the level of a concrete aspeuctual pair: irrespective of the general definition of perfectivity, it is difficult to deny that if there is a perfective verb meaning 'to make', its
meaning most naturally implies resultativity. 30

(b) In Bulgarian, there is nearly always a secondary imperfective which forms a pair with the perfective more naturally than the primary imperfective. In Russian the secondary imperfective is sometimes lacking, but this is largely accidental.

This is again a valid argument, on the whole. The mere lack of a secondary imperfective cannot serve as a criterion for merging a prefixal pair into one lexeme. 31 But it should be noted that it does not seem to be entirely accidental where the gaps are in the Russian secondary imperfective system. The fact that Russian can manage without some secondary imperfectives indicates that sometimes the primary imperfective functions as a real counterpart of the perfective, e.g. in the historical present or in the negative imperative, in which most often an imperfective verb is needed (Forsyth 1970: 38ff.). This certainly requires lexical proximity, although not necessarily identity, between the perfective and the primary imperfective.

(c) The prefix is not predictable in the sense an inflectional element should be; and sometimes there may be several prefixed perfectives that correspond to the primary imperfective, according to the sense, e.g. Russian rvat’(I) 'to tear' → vyrvat’(P), razovrat’(P), sorvrat’(P), narvrat’(P) (Isačenko 1962: 365). 32

This argument is not as important as might appear. When a single imperfective verb has multiple perfective counterparts, it can be compared to a noun whose different meanings become differentiated in plural formation, e.g. Russian óbráz 'image; icon' → óbrazy 'images', obrazá 'icon.s'; Bulgarian list 'leaf' → listà 'leaves (of a tree)', listove 'leaves (of a book), papers'. The prefix of the perfective is not so predictable as a regular inflectional affix would be, but it is not wholly arbitrary, either: there is always some kind of semantic motivation (napisat’(P) "write on", pročitat’(P) "read through"). 33
Moreover, the prefixal pairs could always be considered as instances of *suppletion* because, first, they would not be very numerous at any rate and, secondly, there are in Russian some clearly suppletive pairs in which few linguists would question the identity of the lexical meanings, such as *brat*'(I) / *vzjat*'(P) 'to take', *lovit*'(I) / *pojmat*'(P) 'to chase, to catch', *govorit*'(I) / *skazat*'(P) 'to speak, to say, to tell'.

All in all, the discussion about the status of prefixal pairs seems rather sterile. Since there is always some degree of suppletion in them, we cannot expect to find an absolute criterion for choosing between the single-lexeme and two-lexeme solutions. It must further be stressed that nothing prevents us from speaking of *pairs that consist of two different lexemes each*. This would, in fact, be the most natural meaning of the expression "aspectual pair", for we do not call the singular and plural of a noun a "number pair". Thus, Forsyth's (1970: 38ff.) "defense of prefixal pairs", showing that *pisat*'(I) and *napisat*'(P) *function* as syntactic partners, can be accepted without necessarily committing oneself to the single-lexeme solution. On the other hand, those scholars who have presented arguments against prefixal pairs have in fact only attacked the single-lexeme solution. According to Isačenko (1962: 362), "zwischen *delat* und *sdelat* 'besteht' tatsächlich fast kein semantischer Unterschied". He emphasizes the importance of "fast", to be sure, but his argument does not run counter to the notion of two-lexeme pair. Maslov (1959: 173) admits that the prefixal pairs are "correlative" (*sootnositel'nye*) in the same sense as *učitel* 'teacher' / *učitel'nica* 'woman teacher' are -- and certainly there is nothing wrong with calling these two nouns a "pair". In Maslov (1973: 76), *pisat*'(I) and *napisat*'(P) 'to write', *željet*'(I) and *poželjet*'(P) 'to turn yellow' are actually called "pairs of verbs". It is simply a conceptual confusion to assume that rejecting the single-lexeme solution, we necessarily reject the notion of prefixal pairs as well. An extreme form of this confusion is manifested by Aronson (1977: 11, 30), who contends that in Bulgarian, primary imperfectives do not even enter a grammatical opposition with respect to perfectives.
A verb that appears in one aspect only is often called a perfectivum tantum or imperfectivum tantum. There are a large number of imperfectiva tantum in all Slavic languages, but it is not necessary to assume that they are all "unpaired". We could speak of a Russian asp ectual pair which consists, say, of the imperfectivum tantum verb čitat' (I) and the perfectivum tantum verb pročitat' (P). This may seem unconventional use of words, but it is a suitable way for combining distinctness at the level of morphology and lexicon with unity at the level of syntactic functions. It must, however, be kept in mind that most of the Slavic imperfectiva tantum, such as Bulgarian živeja (I) 'to live', spja (I) 'to sleep', sàotvetstvuvam (I) 'to correspond', sàštéstvuvam (I) 'to exist', are certainly unpaired.

1.4.3: Aspect and time. Different aspect theories usually agree on the necessity of strictly distinguishing between aspect and tense. In principle the difference is straightforward: tense is a deictic category, aspect is not (Lyons 1977: 687-688; Comrie 1976: 1-2). But this does not necessarily mean that "der Aspekt ausserhalb der temporalen Kategorien liegt", as claimed by Isačenko (1962: 348): aspect certainly can express various kinds of non-deictic temporal relations. A good example is the Inzidenzschema (so called in Pollak 1960: 129-140; cf. Weinrich 1964: 162 and Klein 1974), i.e. a complex sentence where an embedded imperfective clause gives the temporal background on which an event, denoted by the perfective matrix clause, takes place. (Sometimes it is the other way round: the matrix clause gives the background, the embedded clause the event.) A Russian and a Bulgarian example:

(9) Kogda ja v'xošil (I) iz komnaty, ja vstretil (P) znakomogo.
(9') Kogato izližax (I) ot stajata, sreštnax (P) edin poznat.35

'When I was leaving the room, I met a friend.'

A similar relation between the imperfective and perfective also holds good over utterance boundaries in discourse: a perfective
sentence often denotes an event that is simultaneous with processes or states expressed by previous imperfective sentences. A series of perfectives denotes a sequence of events, whereas a series of imperfectives presents simultaneous situations. All these interpretations can be canceled with temporal adverbials or other suitable expressions (Comrie 1976: 5), but aspect is nevertheless an important means of expressing "taxis". (It is interesting to note that introducing the notion of taxis, Jakobson (1971b) does not even mention aspect, although the categories of the Russian verb are the main topic of his article. Obviously he only had in mind what Comrie calls "relative tenses". For this reason, and in view of the other difficulties connected with taxis (see 1.3), we had better abandon the whole term for the rest of this study.)

While the above-mentioned cases in which aspect expresses temporal relations are well-known, their description faces one major difficulty: the traditional definitions of the Slavic verbal aspect (see 1.4.4 below) are clearly of non-temporal character. Nils B. Thelin (1978) has, however, attempted to give a more "temporal" definition of aspect. According to his definition (p. 30), "the temporal relations qualitatively defining events in relation to the time axis can be named aspectual meanings, whereas temporal relations defining the order of events along the time axis can be named tense meanings" (orig. emphasis). The problem with this definition is that aspect is often used precisely for indicating the "order of events along the time axis" (= time line), as we have just noted; on the other hand, the definition does not mention the essential deicticity of tense. The "qualitative" relation to the time line that aspect ought to express does not seem to be a clear notion, either. Thelin (1978: 30) says that in its "simple denotation" meaning (i.e., when denoting a closed event which we would expect to be referred to by a perfective; see 3.3.2) an imperfective verb presents an event "as being outside the time axis", outside "a more or less concretely defined temporal context (situation)". On the other hand, Thelin must admit that "events conceived of as being outside the time axis ... certainly can also be temporally ordered", i.e. past, present,
or future. But you cannot have your cake and eat it: if we move outside the time line, we can no longer speak of "temporal order" -- outside the time line, there is neither temporality nor temporal order. Thelin is simply giving an unconventional meaning to the notion of "time axis", implicitly assuming that the temporal order exists anyway. The same thing must be said about his claim that the non-totality of the imperfective (cf. below) can be interpreted as a "partial contact with the time axis" (p. 31). It is difficult to imagine a process or state that is only "partially associated with the time axis" (ibid.): how is it partly exempted from temporality, and where are its more permanent parts stored?

1.4.4: Aspect semantics: traditional theories. The main problem (and the eternal problem, one might add) of Slavic aspect-ology is the definition of the meanings (= Gesamthebentungen) of the perfective and imperfective. There are at least four main theories, whose key notions are (i) punctuality, (ii) resultativity, (iii) boundedness, and (iv) totality.37 I shall briefly discuss each of them in the following.

(i) The theory according to which the perfectivity expresses punctuality, the imperfective durativity, is already outdated. In all Slavic languages, there are two types of obvious counterexamples. First, the so-called "delimitative" and "perdurative" perfectives are used precisely for expressing duration, as in Bulg.:

(10) Pospax(P) dva časa.
    'I slept two hours.'

(For more examples, see Jakobson 1971c; Isačenko 1962: 349; Comrie 1976: 18-19; Thelin 1978: 33-34; Kučera 1983: 174.) It could now be argued that these kinds of verbs are a rather special subtype of perfectives (which is correct in essence) and that the prototypical perfective is still punctual. But unfortunately the perfectives that are always used as typical examples -- such as napiša(P) 'write', proceta(P) 'read' and
their equivalents in other Slavic languages — are anything but punctual. Kučera (1983: 174) points out the pragmatic oddity of sentences like (11) and (11') (Russian and Czech, respectively):

(11) *On napisal(P) knigu včera večerom.*
(11') *Napsal(P) knihu včera večer.*

'He wrote a book last night.' 38

The perfective act of writing a book takes considerable time, and one evening is not thought to be sufficient for it. On the other hand, it would be quite normal to say On pисал(I) knigu vчera veчerom 'He was writing a book last night': from the truth-conditional point of view, the imperfective is true if it is true at one moment, and it is the perfective that must often be true at a longer interval of time (cf. Langacker 1982: 281, 286; Dowty 1977: 56, fn. 6). The really punctual (or momentary) verbs, such as (Bulg.) мигна(P) 'wink', skокна(P) 'jump' are certainly perfective in all Slavic languages; but they are in the minority, representing the perfective interval in its shortest form.

It should also be noted that there is nothing in the imperfective which would clearly contradict punctuality, although a special context is needed for an imperfective verb to denote a punctual event. The most important instance is the historical present, cf. Maslov's (1974: 121) example from Russian 39:

(12) Iду(I) ja вчера по улице и вдруг встреčаю(I) знакомого.

'Yesterday, I'm walking along the street and suddenly meet a friend.'

While all aspectologists would now agree that the perfective can denote non-punctual events, punctuality is still marginally present in the form of an "as if" argument: by using the perfective, the speaker presents an event as if it were punctual, ignoring its duration as irrelevant though he or she may be perfectly aware of it (Dahl & Karlsson 1976: 33; Galton
1976: 132; Lyons 1977: 709-710). This reasoning strikes me as dangerously circular: what evidence do we have of how the speaker has chosen to "present" the event -- apart from the fact that a perfective verb is used? Consider sentence (13):

(13) Magelan obikoli(P) zemjata.

'Magellan sailed round the Earth.'

(Stankov 1966: 103)

Obikoli, a perfective aorist, certainly cannot said to reduce the whole circumnavigation to a point-like event. Of course, there are points of view (e.g. the whole geological history of the Earth) from which Magellan's trip may look rather short; but (13) does not presuppose anything like that.

Although the general idea of the punctuality of the perfective and the durativity of the imperfective is erroneous, there is still some truth to it if it is related to the distinction between bounded and open situations (see (iii) below). The durativity of the imperfective does not primarily mean long duration; it means that the situation denoted by the verb is associated with an open interval of time. The intervals of the perfectives are not always points, but they certainly are closed. The "punctuality" of the perfective can also be interpreted non-temporally as indivisibility and totality, as explained in (iv) below.

(ii) The theory that the perfective expresses resultativity is generally considered to be antiquated, too. Its main counterexamples are again provided by the delimitative and perdurative verbs of various Slavic languages. This is Maslov's (1959: 189) example from Russian:

(14) Popaxali(P) pole, no ne vspaxali(P) ego.

'They plowed the field but didn't plow it all.'

But although we did not accept the view that a typical perfective is punctual, it is easier to agree that most (though not all) perfectives are resultative: they imply that a limit is reached (cf. below) and such a natural end-point is often the
attaining of the result. Comrie (1976: 18-19) stresses that the perfective only denotes a "complete", not a "completed" situation. He is basically right, but he makes the difference seem greater than it really is by equating completedness with "emphasis on the termination of the situation" (p. 18). As he correctly points out, verbs like the Russian otužinat' (P) 'to finish supper' are a special instance and the normal perfective of užinat' (I) 'to have supper' is použinat' (P). (Suitable Bulgarian examples would be četa (I) 'to read' -> dočeta (P) 'to finish reading' vs. pročeta (P) 'to read through'. ) But I do not see why použinat' (P) could not be said to express a completed event, too, though it does not emphasize the mere end-point.

(iii) In modern Soviet aspectology, the key notion is boundedness (predel'nost'). According to §1386 of the new Academic Grammar of Russian (Russkaja grammatika 1982), perfective verbs designate "an integral action bounded by a limit" ("ograničennoe predelom celostnoe dejstvie"). Most often the limit is "a critical point at which the action has exhausted itself and terminates", e.g.:

(15) Mal'čik dolgo perepisyval (I) rabotu i, nakonec, perepisal (P) eë.
'The boy copied the work for a long time and finally finished it.'

Besides this type -- where boundedness comes close to resultativity -- there are other kinds of limits (ibid.): in vyrasti (P) 'to grow up', the limit is the transition to a new state; in zapet' (P) 'to begin to sing' it is the beginning of the action, in otobedat' (P) 'to finish dinner' its end point; in postojat' (P) 'to stand (for a while)' the limit fixes an interval of time for the action (but see below); in the momentary verb prygnut' (P) 'to jump' the mere "act of performing" limits the action.41

It is again the delimitative type postojat' (P) 'to stand for a while' (Bulg. postoja (P)) that does not easily fit this model, because in it both the beginning and end seem to be limits of equal importance (Thelin 1978: 90), and because the
end limit is by no means natural or inherent in, say, the action of standing itself -- no matter how long you stand, you don't get closer to completing it. I do not, however, think that the existence of two limits presents a serious problem: a perfective verb bounds a situation with at least (and typically) one limit, but additional limits are not forbidden. In verbs like pročeta(P) 'to read (through)' it is understood that the action in question had both a beginning and end (Šeljakin 1983: 6), though the end point seems more prominent as it completed the action. In the postoja(P) type the end of the action must likewise be considered to be the main bounding limit, given the fact that time only runs in one direction. As for the non-inherent nature of the limit in this type, the problem is more serious. The limit is somehow imposed on the action from outside. In 3.2.2 I will argue that these verbs are semantically exceptional perfectives, where perfectivity is imposed on imperfectivity or, in other words, imperfectivity is nested within perfectivity. The special nature of the perfectivity of postoja(P) is seen from the fact that in most contexts it can be replaced with the imperfective stoja('I) 'stand' without substantial change of meaning (Maslov 1974: 116).

According to the predel'nost' model, the lexical meanings of certain verb stems inherently contain the possibility of there being a bounding limit; aspeccual pairs are formed from these verbs. In other verbs -- such as stoja('I) -- this possibility is lacking and the stems form unpaired imperfectives. (Postoja(P) is not considered to form a pair with stoja('I); see Maslov 1959: 197-200, 309; Russkaja grammatika 1982: 583.) The former group will be called telic verbs in this study (a term first introduced by Garey 1957). It will also be argued in 3.1.3 that a third group must be recognized: in punctual stems like Bulg. skok- 'jump', namer- 'find', the reaching of a limit is not only possible but also semantically necessary; the imperfectives formed from these stems only impose imperfectivity on their perfectivity, which remains nested inside the imperfectivity.

(iv) Totality, completeness, and integrity are notions
associated with the perfective by a number of renowned aspectologists. This idea is inherited from Ferdinand de Saussure (1922: 161-162), whose formulation of it is given in the Cours as follows:

"Les langues slaves distinguent régulièrement deux aspects du verbe: le perfectif représente l'action dans sa totalité, comme un point, en dehors de tout devenir; l'imperfectif la montre en train de se faire, et sur la ligne du temps."

In this passage it is easy to see traits of several other definitions, too, but we will now concentrate upon "totalité". This notion was further developed by Dostál (1954: 15-16) and Isačenko (1962: 347-350). According to the latter, "der perfekte Aspekt drückt einen Vorgang als ganzheitliches, zusammengefasstes Geschehen aus" (p. 350, orig. emphasis). This also means that in the perfective, the speaker's point of view is "outside" the situation observed, otherwise he or she could not see it as a whole; in the imperfective "stehen wir ... inmitten des Vorganges, den wir nicht übersehen, dessen Beginn und Ende uns verborgen ist und den wir folglich nicht als ganzheitliches, zusammengefasstes Geschehen auffassen können" (p. 348). Similar definitions are found in Comrie (1976) where, as we noted above, the "completeness" of a perfective event is emphasized: in the perfective, "the situation is presented as a single unanalyzable whole, with beginning, middle, and end rolled into one; no attempt is made to divide this situation up into the various individual phases that make up the action".

The "totality" model certainly catches much of the intuitive feeling we have about aspect meanings. However, it is rather abstract and vague, even metaphorical. If we have to derive the concrete interpretations of the aspect forms from these general meaning characterizations, we cannot keep the model strictly apart from other models and especially from the notion of boundedness. Unfortunately there are some traits in the "totality" theory that hinder any concretization of its content. One problem is that as it is usually formulated, the
theory only defines the meaning of the perfective. The imperfective aspect is considered to be the unmarked member of the opposition, expressing neither totality nor the lack of it. The imperfective can be substituted for the perfective, in certain contexts at least (see e.g. Jakobson 1971b,c). Considerations of markedness and neutralization are certainly legitimate and even necessary in aspectology, as in other fields of grammar. But it is less legitimate to argue that in a certain case the imperfective manifests its unmarked nature just because our semantic definitions would really require a perfective to be used instead. In fact, the argument is circular: the notions of markedness and neutralization are invoked in precisely those instances that would otherwise not fit the model.

Another trait of the totality model that makes it so evasive is its insistence on the subjectivity of aspect choice. Isačenko (1962: 347) writes: "Man <kann> vermittels des Verbalaspekts einen bestimmten Prozess oder ein verbal ausgedrücktes Geschehen gleichsam von zwei verschiedenen Blickwarten 'ansehen', aus verschiedener Sicht betrachten und das Ergebnis dieser Betrachtung, eine ganz bestimmte Stilisierung des Prozesses, sprachlich ausdrücken" (orig. emphasis). Similar assertions are usual also in Bulgarian aspectology -- from Andrejčin (1938) to Stankov (1980: 6). And Comrie (1976: 4) argues that the speaker can refer to the same objective situation "once with a perfective form, then with an imperfective, without in any way being self-contradictory". Comrie's example is the Russian sentence (16) and its equivalents in other languages, such as English and French:

(16) Ivan pročital(P) etu knigu včera; v to vremja, kogda on eš čital(I), prišel(P) počtal'on.
'Ivan read that book yesterday; while he was reading it, the postman came.'

Now, pročital(P) knigu denotes a complete event, čital(I) knigu denotes an open process that did not necessarily lead to the reading of the whole book; so the perfective and imperfective certainly do not denote identical situations. In (16) we know
that neither the arrival of the postman, nor any other reason prevented Ivan from finishing the reading; but I cannot see how the expression on е8 ĉital(I) would here denote (or even refer to) the complete event of reading -- such an assertion is simply false. Isačenko's formulation is even more remote from the facts. The choice of aspect is not a matter of mere "stylizing", as all learners of Slavic languages know: the wrong choice often amounts to a gross grammatical error. There are special contexts where the imperfective can be substituted for the perfective without altering the truth conditions of the sentence (see 3.3.2), to be sure. But typically, different aspects denote different types of situations, and the instances where their difference is only modal or discourse pragmatic are in the minority. Moreover, even when the difference is not denotative, it is misleading to stress the alleged subjectivity of the aspect choice: there are always several ways of conceptualizing a given state of affairs or episode and expressing it with utterances, and aspect holds no special position in this respect. In Bondarko's terms (cf. 1.2.2), the same cognitive content can be represented by different linguistic contents. The fact that aspect semantics is difficult to describe does not give us a right to presume that the speaker is acting arbitrarily at this point.

1.4.5: "Častnye vidovye značenija." In order to concretize the aspect definitions based on boundedness or totality, Soviet aspectology makes use of the notion častnye vidovye značenija, to be translated perhaps as "particular aspect meanings" (henceforth: PAM's). There are longer and shorter lists of such meanings, ultimately deriving from Maslov's (1959) proposals in his important study of Bulgarian aspect. In a newer article, Maslov (1974) makes a distinction between "central" and "peripheral" PAM's: the perfective has one central PAM (with several variants) and three peripheral ones, the imperfective has three central (again with variants) and three peripheral PAM's. In Stankov's (1980) monograph on Bulgarian aspect, the hierarchy looks like this:
PERFECTIVE: main PAM: konkretno-faktičesko značenje
derived PAM's: sumarnoto značenje
konkretno-tipičnoto značenje

IMPERFECTIVE: main PAM's: obštofaktičesko značenje
konkretno-procesnoto značenje
neograničeno-povtoritelnoto značenje
postojanno-procesnoto značenje
derived PAM's: ograničeno-povtoritelnoto značenje
konkretno-tipičnoto značenje

These terms are quite usual jargon in one school of aspectology, but they are difficult to explain in brief (let alone translate into English). The most important question concerns the status of PAM's: what are these "submeanings"? Obviously they are what we have previously (1.2.1) called interpretations: they are contextual variants of the Gesamttbedeutung (cf. Stankov 1980: 9), recurrent and conventionalized interpretation types. But the number of such interpretation types is entirely dependent on the level of abstraction we have chosen: the finer the context distinctions we are taking into account, the more interpretations we find. There may be practical criteria for choosing a particular level of abstraction -- perhaps at that level the interpretations can be classified in an interesting and revealing way. The level of PAM's may well be practically useful in just that sense; in this study I will often utilize results attained in the PAM framework. But otherwise I will not confine myself to the level PAM's represent.

1.4.6: The universality of aspect. The passage from de Saussure's Cours, quoted above, continues like this: "Ces catégories font difficulté pour un Français, parce que sa langue les ignore: si elles étaient prédéterminées, il n'en serait pas ainsi" (1922: 162). De Saussure uses aspect as an example of a grammatical and semantic category which does not exist in all languages: "nous surprenons donc, au lieu d'idées données d'avance, des valeurs émanant du système" (ibid., orig.
emphais). Nowadays, however, linguists think that there is aspect even in French (Garey 1957; Klein 1974). The French translation of (9) would be:

(17) Quand je sortais de la chambre, j'ai rencontré un ami.
    (Klein 1974: 31)

The opposition between the imparfait (sortais) and passé composé (ai rencontré) is parallel with the Slavic distinction between the imperfective and perfective past. The situation would be even more clear in written French (or in Italian and Spanish) where passé simple could be used as the equivalent of the Slavic perfective. The comparison with Slavic languages has contributed to the correct description of one important opposition in the Romance verb system (Klein 1974: 18-19, 80-89).45

Recall that the English translation of (9) was

(18) When I was leaving the room, I met a friend.

which suggests that the difference between the English "simple" and "progressive" tenses might also be aspectual. This really seems to be the case, though it is important to note that the progressive is not the same thing as the Slavic imperfective.46 (For the semantics of the English progressive, see Comrie 1976: 32ff., and the interesting analysis in Goldsmith & Woisel-Schlaeger 1982.)

As suggested by Lyons (1977: 687), among others, aspect may well be far more widespread grammatical category than tense in languages of the world. In some languages, such as Chinese and written Arabic (Comrie 1976: 78ff.), aspect and tense are mingled into one system. In some other languages, such as Hausa (Kraft & Kirk-Greene 1973; Smirnova 1982), tense does not appear as a grammatical category at all: the perfective is usually interpreted as referring to the past, the imperfective to the present, if context indications to the contrary are lacking.

The situation in Finnish is very interesting. Aspect is not an overt grammatical category of the verb, with the possi-
ble exception of progressive-like forms of the type olen syömässä 'I am eating, I am having a meal'. But the opposition between the accusative and partitive case in the direct object often expresses aspeccual distinctions, e.g. sōin omenaa (and olin syömässä omenaa) 'I was eating an/the apple (partitive)' vs. sōin omenan 'I ate an/the apple (accusative)'. The opposition is so neatly aspeccual only in singular countable objects, for in plural and mass nouns the primary interpretation of the partitive ('an indefinite amount of') comes to the fore (T. Itkonen 1976). Recently there have been interesting attempts to semantically unify the various uses of the accusative / partitive opposition (Leino 1982; Heinämäki 1984; cf. also Carlson 1981). Especially Heinämäki's paper should be mentioned: it is based on the distinction between bounded and open situations, and her "boundedness" comes very near to the "boundedness" (predel'nost') mentioned in 1.4.4 above -- being perhaps identical with it. The lack of a limit is a common semantic feature of the partitive case and the imperfective aspect. Finnish shows that aspect and aspeccuality must not be considered separately from nominal reference.

There certainly are many languages -- such as German and the Scandinavian languages -- in which aspect is not an overt grammatical category (though perhaps in all of them there are at least some optional syntactic means of expressing similar distinctions47). But the examples so far should have made it clear that grammaticalized aspect is not confined to the Slavic languages. The reader may now point out that we have not given a universal definition of aspect yet, so this claim might seem rather vague. At least we can say that it would not be fruitful to pattern the definition so closely upon the Slavic model (as Galton 1976: 293-304 does) that we would lose the universal and contrastive vantage point. The definition I propose looks like this:

Aspect is a grammatical category which classifies situations denoted by sentences into events, processes, states, and similar classes.
This definition must remain somewhat vague until the situation classes have been explained in the 3rd chapter; now it only indicates the direction in which we are going to proceed.

The question still remains whether aspect is a universal semantic category, i.e. whether there are aspectual distinctions in the semantic structure of all languages, even if they are not grammaticalized. Some linguists, such as Serebrennikov (1960: 26-27) would answer negatively: aspect is only a grammatical category, and if it has no morphological markers in a given language, it does not exist. Others, like Comrie (1976: 6), hold an opposite view. The semantic distinctions are there even when not overtly expressed. "Just as some languages do not grammaticalise time reference to give tenses, so some languages do not grammaticalise semantic aspectual distinctions to give aspects" (Comrie 1976: 8-9).

There are in fact two distinct issues here. First we can ask, as de Saussure put it (see above), whether we have "idées données d'avance" or "valeurs émanant du système". De Saussure opted for the second alternative, but nowadays it is a generally accepted hypothesis of modern linguistics that semantics is, to a large extent, universal. At least it is a stronger hypothesis; and it is also a fruitful hypothesis as it makes us see connections between phenomena in various languages — phenomena that de Saussure thought were distinct. A different question is whether we should use the same term both for a grammatical category and the semantic distinctions it encodes. Here I think fewer linguists would answer affirmatively. So, just as we distinguish between "tense" and "temporal reference", we must distinguish between "aspect" and "aspectuality". Aspectuality is the semantic domain of aspect; it means reference to the situation class. The term is a translation of the Russian aspektual'nost', which is commonly used to cover grammatical aspect (вид), the so-called Aktionsarten (cf. 3.1.4), and even the meaning of certain adverbials (Bondarko 1967: 20). Only the adjective "aspectual" remains somewhat ambiguous — it can pertain both to "aspect" and "aspectuality" — but this is not a serious shortcoming. It is the firmly grammaticalized Bulgarian verbal aspect we will be mainly dealing with, though sever-
al conclusions are meant to be valid also for the general
type of aspect and aspectuality.

1.5 The Bulgarian Verb

1.5.1: The paradigm. Aleksandar Teodorov-Balan, a pioneer of
Bulgarian grammatical studies, dubbed the verb "the elephant of
Bulgarian grammar". While Bulgarian nouns, adjectives, and
numerals have lost their case declension all but completely,
the verbal conjugation contains more forms than that of any
other living Slavic language. In comparison with the archaic
Slavic system — as attested by Old Church Slavonic (Old Bul-
garian) — Bulgarian has only lost some non-finite verbal
forms, most notably the infinitive. An entirely new mood, the
reported mood, has enriched the paradigm. The central position
of Bulgarian in the Balkan linguistic area has been decisive
for the loss of the infinitive and for the appearance of the
reported mood, but also for the preservation and further devel-
opment of several old tenses.

According to traditional grammars, the grammatical cate-
gories of the finite verb are as follows:

1. **Person and number**: a familiar system of 3 + 3 per-
songs.
2. **Voice**: active and passive.\(^ {49} \)
3. **Aspect**: perfective and imperfective.
4. **Tense**: usually nine tenses are distinguished (see
   2.1.1).
5. **Mood**: indicative, reported (preizkazno), imperative,
   and conditional (with analytic and rarer synthetic
   forms).

The non-finite forms are:

a. Present participle active,
b. Past participle active from the aorist stem.
c. Past participle active from the imperfect stem.
d. Past participle passive.
e. Present gerund (active).
f. Verbal noun.

The "verbal noun" (отглаголно съществително⁵⁰), ending in the suffix -ne, is included in the verbal paradigm because it can be formed from all imperfective verbs and is semantically regular. Often there exist both a form in -ne, denoting the mere activity, and a lexicalized form in -nie (or some other suffix), designating a more specific concept, such as the result of the activity: cf. izobretjavane 'inventing', izobretenie 'invention'. There are some lexicalized -ne nouns, to be sure: predavane 'transmission, program (on the radio or TV)'; jadene 'food' (from jam 'to eat'; for more examples, see e.g. Lindstedt 1978a). When used without the definite article, verbal nouns in -ne can receive a direct object, though it is more usual to use the linking preposition na 'of, to, on': pisane (na) statija 'writing (of) an article'.

Not all the forms of the verbal paradigm can be formed from both the perfective and imperfective stem (cf. 1.4.1, on "formal restrictions"). The following require an imperfective stem (Maslov 1963: 20):

- negative imperative
- present participle active
- gerund
- verbal noun

Notice that this does not necessarily mean that all of these forms are semantically imperfective. At least the verbal noun semantically represents both aspects: razkāsvane 'tearing' corresponds both to the Polish rozzerwanie (perfective) and rozrywanie (imperfective; see Andrejčin 1938: 77).

Both aspects can appear in all the tenses. That is why we must distinguish between the oppositions perfective vs. imperfective (an aspectual opposition) and aorist vs. imperfect (a
temporal opposition according to traditional grammar, though several linguists call this in question). Perfect is a tense, too, to be distinguished from the perfective aspect. We have already introduced the convention of marking the aspect in parentheses after the verb: dam(P), davam(I) 'to give'. Henceforth I will also mark the aorists and imperfects by adding a second symbol: dadox(P,A), dadjax(P,I), davax(I,A), davax(I,I) 'I gave / was giving'.

Since there is no infinitive in Bulgarian, and some of the preserved non-finite forms have a rather bookish character, Bulgarian syntax is characterized by the high frequency of finite verb forms. This can be seen by comparing quite simple sentences with, say, their English equivalents:

(19) Az iskam da peja.
(20) Tja iska da pee.

(19') I want to sing.
(20') She wants to sing.

To some extent, the complementizer (or particle) da can be compared to the English to in these sentences; but da is followed by a fully inflected finite form which agrees with the subject (as if we were to say in English *She wants to sings).

1.5.2: On the morphology of tense and aspect. The morphology of the Bulgarian verb cannot be dealt with extensively in this study. Tense formation is described fairly exhaustively in the new Academic grammar (Gramatika 1983). There exists a special monograph by Maslov (1963) on the morphology of aspect. I will confine myself to some general remarks; for fuller (though not complete) paradigms the reader is referred to the Appendix.

Only three of the traditional nine tenses are synthetic, viz. the present, aorist, and imperfect. In all of them, the endings consist of a thematic vowel and a personal ending, e.g. piša(I) 'to write':
The imperfect and aorist share the same set of personal endings, except for the 2nd and 3rd persons singular; the present personal endings are different. In the sole productive conjugation, the 3rd, the theme vowel is identical (-a-) in all these three tenses and there are no consonant alternations in the stem. This means that the aorist 2nd and 3rd persons singular are homonymic with the present 3rd p. singular, and the remaining aorist forms are homonymic with the corresponding imperfect forms. There are, however, some possibilities of distinguishing the aorist forms by stress shift (karam(I) 'to drive'):

The stress shift is optional, and it is now becoming obsolete.

The analytic tenses are formed with the help of (combinations of) the auxiliary verbs sām 'to be' and šta 'will', the particle / auxiliary šte 'will', and the complementizer / particle da. For a fuller account in terms of tense semantics, see sections 2.1 and 2.2. The formation of the reported mood is discussed in 4.3. The imperative forms are synthetic; the ordinary conditional forms consist of the auxiliary bix and an aorist-based past participle active.

As in other Slavic languages, Bulgarian (primary) imperfective verbs can be perfectivized by means of prefixes or the (mainly momentary) suffix -n-. From these perfectives, new secondary imperfectives are formed with the suffixes /a/, /va/, /ava/, and (rarely) /uva/ (Maslov 1963: 143ff.). In comparison with aspect morphology in other Slavic languages, the following
Bulgarian characteristics are worth noting:

(i) Imperfectivization is wholly productive: a secondary imperfective can be formed from all perfectives. In Russian, for example, there are only the primary imperfective писать (I) 'to write' and the corresponding perfective написать (P); there is no form like нписыват (I) in the standard language. In Bulgarian the whole series exists: пишо (I) -> напишу (P) -> написвам (I). The only instances where imperfectivization is not possible are due to a kind of morphophonological filter: if the perfective stem already ends in -в- , the sequence /vvv/ is blocked and a secondary imperfective cannot be formed (e.g. продиктувам (P) 'to dictate', заприказвам (P) 'to begin talking'; see Gramatika 1983: 264).53

(ii) There are no suppletive aspectual pairs. Cf. Russian говорить (I) : сказать (P) 'to speak, to say' and Bulgarian казвам (I) : каза (P) 'to say' (but говоря (I) 'to speak', an imperfectivum tantum); Russian брать (I) : взять (P) 'to take' and Bulgarian вземам (I) (or взимам (I)) : взема (P) 'to take' (беру (I) only means 'to pick, to gather'). Cases of suppletivism we find as near as in Macedonian, where видеть (I) 'to see' (the perfective is вижу (P)) is usually replaced by глянути (I) 'to look', e.g. Mač. Татко ми не глянути = Bulг. Баšта ми не виžда 'My father does not see < = is blind>': Mač. Ja глянути ли куêна? = Bulг. Viždaš ли onazi kâšta? 'Do you see that house?'.

(iii) There are relatively many primary perfectives, i.e. verbs which are perfective though they contain no prefixes or suffixes, e.g. видеть (P) 'to see', платить (P) 'to pay', xвâрлжат (I), пластать (I), xвâрлжим (I)). According to the Academic Grammar (Gramatika 1983: 260), their number is about 50. The estimate was the same in Beaullieux's (1933: 175) grammar, and was repeated in Andrejočin (1938: 16).54 On the other hand, several primary perfectives were used as biaspectual until recently (i.e., approximately till the beginning of the century), so this group must have been increasing in number.

(iv) There are no real "habituals" or "frequentatives"
formed by additionally imperfectivizing a primary imperfective, such as the Russian znavat’(I), from znat’(I) 'to know' (Forsyth 1970: 168ff), or Czech psávat(I), from psát(I) 'to write' (Kučera 1982). Forms like jadvam(I) (from jam(I) 'to eat') are only possible as "synthetic conditionals" and are rare in the modern literary language (cf. 4.1). The only exception is bivam(I), a habitual counterpart of sám(I) 'to be'; but from the point of view of the modern language this is a suppletive instance and, moreover, bivam(I) has also assumed some non-habitual meanings (Maslov 1963: 146-147; 1981: 261-270).

(v) The distinction between determinate and indeterminate verbs of motion has disappeared completely: there are no oppositions like the Russian xodit’(I) : iditi(I) 'to go, to walk'. (In the case of Bulg. xodja, this has led to a certain aspectual ambiguity, as will be argued in 3.3.3).

All of these five Bulgarian characteristics have at least one thing in common: the system has been unified so that it contains as much regularly formed suffixal aspectual pairs as possible. Point (i) means increasing the number of suffixal pairs, (ii) regularizes the morphology. The new primary perfections -- cf. (iii) -- have further decreased the role of prefixation as a means of forming aspectual pairs; their absolute number is not great, but they are, for the most part, frequent verbs. (Prefixation of course continues to be an important procedure of word formation.) As for (iv) and (v), they both guarantee that the opposition between the perfective and imperfective is not complicated by additional aspectual distinctions -- though it certainly is much complicated by the aorist: imperfect opposition, as we will see in the course of this study.
2 TEMPORAL REFERENCE IN BULGARIAN

2.1 Bulgarian Tenses: The System of Forms

2.1.1: What counts as a tense? Modern grammars of Bulgarian usually recognize nine tenses, viz.:

segašno vreme = present
minalo nesváršeno vreme = imperfect
minalo sváršeno vreme = aorist
minalo neopredeleno vreme = perfect
minalo predvaritelno vreme = pluperfect
bădešte vreme = future
bădešte predvaritelno vreme = future perfect
bădešte vreme v minaloto = past future
bădešte predvaritelno vreme v minaloto = past future perfect

As noted in 1.5.2, only the present, imperfect, and aorist tenses are synthetic forms; all the others are analytic (periphrastic). The most complex of them, the past future perfect, is composed of the imperfect of the auxiliary šta 'will', the particle (or complementizer) da, the present tense of the auxiliary săm 'to be', and the aorist-based past participle active of the main verb, e.g. štjax da săm napravil(P) 'was going to have made, would have made'. As will be shown in section 2.2, the synthetic and analytic tenses together constitute a unitary system of temporal reference, hence there is no reason to doubt that the analytic forms participate in the paradigm of tenses. Periphrastic forms are, of course, not typical of Bulgarian only.

The future and especially the two past future tenses are
often held to be primarily modal (see 4.1 and 4.2), but there are sufficient examples of their purely temporal use to justify their inclusion in the paradigm of tenses.

Another problem is the distinction between the aorist and imperfect, which is often considered to be an aspectual opposition. Although I, too, will argue for the aspectual solution, I will also show that aspectuality cannot be strictly separated from temporal reference (see 2.6 and 3.1.5), so there is nothing principally wrong with calling the aorist and the imperfect tenses. But in view of the special nature of their opposition, it is sometimes useful to speak of a preterite tense which comprises both. The morphological paradigms in 1.5.2 showed that the aorist and imperfect share the same set of personal endings, with the exception of the 2nd and 3rd persons singular. (And even here they share the property of not distinguishing these two persons morphologically.) The 2nd and 3rd persons plural of the aorist and imperfect were distinct in the older forms of the language, but they have been unified so as to make -x- a unitary marker of the preterite.

The existence of the preterite tense is further indicated by the fact that the verb *sám* 'to be' does not distinguish between aorist and imperfect forms. In the 2nd and 3rd persons singular, both *beše* and *be* are used indiscriminately as aorists and imperfects; the former is the normal form, while *be* is now considered obsolete or at least bookish. Dejanova (1966: 57) lists nine verbs that have no aorist forms; among these are *trjabva*(I) 'must' and *znaja*(I) 'to know'.¹ It seems, however, that although their preterital forms are formally imperfects, occasionally they can also fulfill aoristic functions, as will be seen in 4.1 and 4.3 below.

The verb *imam*(I) 'to have, to be' and its negative *njamam* are in the process of loosing the distinction between aorist and imperfect forms. Cf. sentence (1):

(1) Včera ??nemà(I,A) / njàmaše(I,I) lekcii.
    'Yesterday there were no lectures.'

The meaning is clearly aoristic, if what is meant is 'no lec-
tures were held' and not 'no lectures were being held'; nevertheless, the imperfect is preferred and the aorist nemá is considered obsolete or dialectal, at least with a shift of stress. In other persons it would definitely be ungrammatical:

(2) Včera *nemáxme(I,A) / njámaxme(I,I) lekcií.
    'Yesterday we had no lectures.'

It is also usual to say

(3) Snošti imaše(I,I) sábranie.
    'Last night there was a meeting.'

in spite of the fact that 'A meeting was held last night' would be rendered with an aorist (Snošti se provede(P,A) sábranie or Snošti se sástoja(P,I,A) sábranie). There are examples of ima (I,A) and nemá(I,A) to be found even in the newer artistic prose, to be sure:

(4) Irina se kači(P,A) mnogo bárzo v kolata i toj nemá(I,A) vreme da ja razpita(P) za sástojanieto na Dinko.
    'Irina got on the car very quickly, and he didn't have time to question her about Dinko's state <of health>.'
    (Dimităr Dimov)

But even in this sentence njamaše(I,I) could be used without altering the meaning. Perhaps some day imam will have a unitary preterite tense as sám already has.²

There is one construction whose relation to the paradigm of tenses is not entirely clear, viz. imam + past participle passive of the main verb. Vladimir Georgiev (1976, originally 1957) argues that this construction, typical of colloquial language, is a new type of perfect in statu nascendi (the normal perfect is composed of the present tense of sám 'to be' and the aorist-based past participle active of the main verb). Here is one of Georgiev's numerous examples (p. 299):
(5) **Imame poračani(P) vaglišta ošte prez maj, no ne sa gi donešli(P).**

'We have coal ordered as early as in May, but they haven't brought it.'

**We have coal ordered** must here be understood in the sense 'we have coal in the state of orderedness', not as 'we make somebody order the coal'. **Imam** cannot here mean 'to have got' because we in fact do not have any coal now. The English have-perfect is thought to have developed from analogous expressions (McCoard 1978: 217ff.).

Galton (1976: 198-199, 281) mentions similar (largely occasional) constructions in Polish, Czech, Slovak, Sorbian, and Serbo-Croatian. The case in point is Standard Macedonian, in which the **imam** perfect is quite normal and can be used even with intransitive verbs, e.g. **imam dojdeno** 'I have come' -- just as in English. In Bulgarian this is not possible (there exist no passive participles of intransitive verbs at all), which is why the **imam** construction cannot be considered a real perfect yet. Even with transitive verbs there are certain unexplored limitations as to its grammaticality. Consider the following sentences:

(6a) **Imam kupeni(P) dva pantalona.**

'I have two pairs of trousers bought.'

(6b) **Imam prodadeni(P) dva pantalona.**

'I have two pairs of trousers sold.'

(6c) **Imam namerena(P) otlična pisalka.**

'I have an excellent pen found.'

(6d) **Imam zagubena(P) otlična pisalka.**

'I have an excellent pen lost.'

(6e) **Tazi kniga veče ja njamam(I), imam ja zagubena(P).**

'I no longer have got that book, I have it lost.'
It is not easy to judge the grammaticality of these sentences. Of my 13 informants (of various ages), positive judgments on (6a) through (6e) were given by 11, 8, 6, 4, and 0 persons, respectively. Various "not sure" answers have been counted as positive because much depends on each informant's capability of imagining a suitable context; sentence (6b), for instance, seemed entirely acceptable to those informants who came to think (or to whom it was pointed out) that a salesperson might utter it at the end of the working day. The essential result was that none of the sentences was accepted by all the informants, and only (6e) was rejected by all.

Obviously the imam construction is not a full-fledged tense. This is also Kostov's (1972) conclusion in his balanced article on the question, although somewhat surprisingly he seems to be convinced that this construction is bound to become a tense some day. He points out (p. 376) that imam gi napečatani, for instance, has three interpretations: (i) 'I have printed them'; (ii) 'I have had them printed' ('ich habe sie drucken lassen'); and (iii) 'I have them printed' (= 'in printed form'). There are stylistic limitations as to when the construction can be used, and semantically it is mainly used when the result of the action somehow affects the subject's interests (p. 378). Kostov's characterization is certainly right in principle, though it may not suffice for explaining all the problems connected with sentences (6a) through (6e).

2.1.2: The morphosyntactic features and operators. The nine tenses are morphosyntactic features, or grammemes. Taken together, they form a system that can be described by means of the three binary distinctive features <PAST>, <FUTURE>, and <PERFECT> -- the term "feature" is here used in another sense, to mean the elements into which the grammemes can be decomposed. Of course three features are only sufficient for distinguishing eight grammemes; the aorist and imperfect have been counted as one tense (the preterite) according to 2.1.1:
The positive values are morphologically marked. There is a certain hierarchy between the three features, which shows up both in their formal marking and semantic content. This can be described by postulating three morphosyntactic operators with a definite scope hierarchy, viz. PAST, FUT, and PERF, which correspond to the positively marked values of the respective features. If we stipulate that a verb to which no operators are applied is inflected in the present tense, the eight tenses can be derived from the following scheme:

(PAST) (FUT) (PERF) V

where V is the verb lexeme the operators apply to morphologically. (Semantically they apply to the whole sentence.) The feature matrix can be rewritten as follows:

<table>
<thead>
<tr>
<th></th>
<th>PAST</th>
<th>FUT</th>
<th>PERF</th>
</tr>
</thead>
<tbody>
<tr>
<td>present</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>preterite</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>perfect</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>pluperfect</td>
<td>+</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>future</td>
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<tr>
<td>future perfect</td>
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<td>+</td>
<td>+</td>
</tr>
<tr>
<td>past future</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>past future perfect</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

The verb is marked morphologically starting with the innermost operator. The marker of PAST is the preterital set of personal endings (with the characteristic consonant -x-). The endings
are appended to the main verb if there are no auxiliaries, otherwise to the first auxiliary, which is why PAST can only be applied when it is known what auxiliaries are needed. In the preterite, the aorist and imperfect endings are different in the second and third person singular, and in all the persons the aorist and imperfect may use different stems (see 1.5.2). But in the other PAST forms, there are no such distinctions. The marker of FUT is the particle / auxiliary šte. It is always placed before the marker of PERF, namely the auxiliary sām, which requires that an aorist based past participle be formed from the main verb. The following example shows how this ordering of the operators enables the past future perfect to be constructed in a natural way (štjaš da sām xodil 'I was going to have gone, I would have gone'):

\[
\begin{align*}
\text{PAST FUT PERF xodja} \\
\rightarrow \text{PAST FUT sām xodil} \\
\rightarrow \text{PAST šte sām xodil} \\
\rightarrow \text{štjaš da sām xodil}
\end{align*}
\]

Notice that any other ordering would cause problems:

\[
\begin{align*}
\text{PAST PERF FUT xodja} \\
\rightarrow \text{PAST PERF šte xodja} \\
\rightarrow \text{PAST sām štjal da xodja} \\
\rightarrow \text{?}
\end{align*}
\]

(A form like *bjax štjal da xodja is ungrammatical.)

\[
\begin{align*}
\text{FUT PAST PERF xodja} \\
\rightarrow \text{FUT PAST sām xodil} \\
\rightarrow \text{FUT bjax xodil} \\
\rightarrow \text{?}
\end{align*}
\]

(The future marker šte cannot be connected with a pluperfect.)
FUT PERF PAST xodja
-> FUT PERF xodix (or xodex)
-> ?

(The PERF operator has to be applied to a verb in the present tense, otherwise we would not be able to derive the perfect itself: PERF xodja -> sân xodil.)

PERF PAST FUT xodja
-> PERF PAST šte xodja
-> PERF štjax da xodja
-> ?

(The same problem again: PERF is applied to a non-present form štjax.)

PERF FUT PAST xodja
-> PERF FUT xodix (or xodex)
-> ?

(A preterite in the scope of FUT is not possible here; cf., though, footnote 7.)

I will not demonstrate separately that the operator ordering which is correct for the most complex of the tenses is the right one for the remaining tenses, too; the reader can easily work it out alone. The relation of this ordering to the semantics of tenses will be shown in 2.2.6. The scope hierarchy of the operators is based solely on Bulgarian, but it is interesting to note that Janssen (1983: 84ff.) has arrived at an identical ordering of semantic "modifiers" in his Montague-type treatment of English:

(neg) (past) (fut) (perf) S

Negation is here considered to have the widest scope, which no doubt is true for Bulgarian, too.

An interesting question is whether the differences between Bulgarian and Macedonian verb conjugation are partly due
to operator scope. The Macedonian form corresponding to the Bulgarian past future "štjak da vzema 'I would take' is Ke
zev7: if the Bulgarian order of operators is PAST FUT vzema, the Macedonian seems to be FUT PAST zemam. I do not know if there would also be semantic motivation for this different ordering in Macedonian; I think the formal difference may be attributable to the fact that in Macedonian the past future also has the function of a past habitual ('I used to take'; Gožab 1964: 37-38, 72-80).

2.1.3: Neutralizations. In section 1.4.4, discussing the traditional theories of Slavic verbal aspect, we rejected the use of neutralization as an explanation in cases where the imperfective aspect is used instead of the theoretically expected perfective, because such an explanation would be entirely circular.8 Of course the existence of the phenomenon of neutralization in grammar cannot be denied. For the present purposes I will define contextual neutralization as follows (cf. Bulygina 1980: 330, footnote 17):

The opposition between grammemes (morphosyntactic features) A and B, with meanings A and B respectively, is contextually neutralized in a context type where A can or must be used to mean both A and B.9

Notice that alleged examples of aspect neutralization fit this definition only if the imperfective is used to mean exactly what the perfective would mean; in 3.2 I will argue that this is generally not the case. But there are clear cases of tense neutralization in Bulgarian, and the interesting thing is that it is precisely the three features <PAST>, <FUT> and <PERF> that are neutralized.

The feature <PAST> is neutralized in the reported and conditional moods (Pašov 1984). In the reported mood, there are only five tense forms: one for the present and imperfect, one for the aorist, one for the perfect and pluperfect, one for the future and past future, and one for the future perfect and past
future perfect. (So, the preterite tense is split: the imperfect is unified with the present, while the aorist conserves a form of its own.) In the conditional mood, a form like bix stojal(I) can mean either 'I would stand' or 'I would have stood'; hence it can refer to the past, present, or future and neutralizes not only <PAST> but also <FUT>.

As will be shown in 2.4.1, the feature <FUT> is neutralized in subordinate clauses indicating condition or time:

(7) Rešix(P,A), če štom se vārna(P) dovečera, šte zanesa(P) vsičko do italianskoto posolstvo.
'I decided that as soon as I returned that night, I would take everything to the Italian embassy.'
(Pogled)

This means that, just as in English, šte = "will" and štjax = "would" cannot be normally used in certain subordinate clauses. The parallelism also extends to certain conditional sentences (see 4.1).

The feature <PERF> is neutralized in the passive forms consisting of sām and the past participle passive (PPP) of the main verb. Hence there are only four tense forms:

sām + PPP = present or perfect
bjax + PPP = preterite or pluperfect
šte bāda + PPP = future or future perfect
štjax da bāda + PPP = past future or past future perfect

Only a general scheme is given above -- actually the temporal interpretation often depends on the aspect of the verb (Maslov 1981: 267-270). If sām is substituted for bāda in the last two forms (cf. 2.4.2), the <+PERF> interpretations (future perfect and past future perfect, respectively) are preferred. A special aorist form of sām, viz. bidōx, was formerly used to distinguish the aorist from the pluperfect interpretation in the construction bjax + PPP (Pašov 1976b; Maslov 1981: 270).

All in all, the tense neutralizations found in Bulgarian are easily describable in terms of the features (and the corre-
sponding operators) <PAST>, <FUT>, and <PERF>, which are the
three cornerstones of the morphosyntax of Bulgarian tense.

2.2 Bulgarian Tenses: A Semantic Model

2.2.1: S, R, and E. As a first approximation, the meanings of
the Bulgarian tenses are described below in terms of Reichen-
bach's tense model (see 1.3). I have used Comrie's formalism
because it covers the different relative orderings of the
relevant time points better.

(i) Bulgarian tenses: the first approximation

   present: E simul S
   preterite: E simul R before S
   perfect: E before R simul S
   pluperfect: E before R before S
   future: E after S
   future perfect: E before R after S
   past future: E after R before S
   past future perfect: E before R after R' before S

The main deviations from Reichenbach's classical system are,
first, the lack of R in the present and future and, second, the
use of two R's in the past future perfect. The need for the
latter amendment was already briefly discussed in 1.3; here we
can consider a further example:

(8) S rabotnicite po pristaništata štjava da se sključat(P)
novi sporazumenija, zašto i te štjava da sa stojali(I)
bez rabota meseci nared.

'New contracts were going to be concluded <past future>
with the workers at harbors, because they, too, were
going to have been <past future perfect> without work for months on end.'
(P. Spasov, quoted in Galton 1976: 222)

Counted from E, the first R is the moment at which the contracts are concluded, the workers having been without work for months up to that time. The second point of reference is the moment at which all this still lay in the future, was going to take place.

As for the lack of R in the present and future, we noted in 1.3 that the future in English, and presumably in Bulgarian, has two interpretations, viz. E after R simul S and E simul R after S; the formula E after S covers them both. And since we do not have R in the future, it seems superfluous to have it in the present, because it would logically add nothing to the formula E simul S -- at least not until we have explicated the notion of reference point in greater detail below.

The status of R is least problematic in those tenses in which it is simultaneous (simul) neither with E, nor with S. Sentence (8) was an example of the past future perfect; the other "clear" cases are the past future, future perfect, and pluperfect tenses:

(9) Skoro pritâmnja(P,A) dobre i toj ostavî(P,A) tova mjasto, koeto utre šteše da bâde nagâzeno(P) ot turski poteri.
'It soon got really dark and he left that place, which was going to be trampled <past future> by Turkish pursuit parties the day after.'
(Ivan Vazov, quoted in Stankov 1969: 147)

Here R is the moment at which "he" left the place.

(10) Šte pristignem(P) kâsno. Decata šte sa si legnali(P) veče i sigurno šte sa zaspali(P).
'We'll arrive late. The children will have gone to bed and will certainly have fallen asleep <future perfects>.
(Stankov 1969: 153)
R is the moment of the arrival. Note that as in all tenses whose semantic analyses contain R, the position of E is only specified relative to it, not relative to S. The speaker does not say whether the children have already gone to bed or not when the sentence is uttered, or if they are doing so just now; he or she only says that they will have gone to bed by the arrival.

(11) Batju mu Jurdan i negovijat sin Kiro, kojto beše došal(P) snošti v otpusk, pregleždaxa(I,I) žātvarkata nasred dvora.

'His elder brother Jurdan and Jurdan's son Kiro, who had come <pluperfect> on leave the previous night, were examining the harvester in the middle of the yard.'

(Ivan Petrov, quoted in Gramatika 1983: 336)

Here R is of course the moment at which the two men were examining the machine; the arrival had taken place before. The following sentence has two readings:

(12) Až bjax došal(P) ošte v 7 časa.

'I had already arrived at 7 o'clock.'

This can mean either that my arrival took place at 7 o'clock, or that at 7 o'clock I was already present, having arrived earlier (Stankov 1969: 117). The time adverbial can locate E, or it can be coreferential with R.11

If we compare the semantic representations of tenses in (i) above with their operator formalizations in 2.1.2, the following tentative correspondences can be established:

PERF means "E before R";
FUT means "X after Y", where
  X = R if there is R from the previous rule,
  X = E otherwise, and
Y = R if there is R from the following rule,
  Y = S otherwise;
PAST means "R before S".
Notice that this is not our final result yet.

If a formula would contain two \( R' \)'s, the second of them must be replaced by \( R' \). Moreover, a rule is needed which completes the formulae so that they will have the normal form \( E (\text{rel } R (\text{rel } R')) \text{rel } S \) by adding \( E \) or \( S \) when necessary and linking them with the other points by using the relation simul. This default rule is solely responsible for the formula of the present tense (\( E \text{ simul } S \)).

So far we have not explained how the two tenses now subsumed under "preterite", namely the aorist and imperfect, are opposed; neither have we shown that the different location of \( R \) really explains the distinction between the preterite and the perfect. These questions will now be dealt with.

2.2.2: Imperfect as a "present in the past". There are important parallelisms between the present and imperfect tense, which is why the latter has often been characterized as a "present in the past", i.e. a present that is shifted to the past so that it still retains some characteristics of the present tense. In Bulgarian linguistics this view has been put forward especially by Valentin Stankov (1966, 1969, 1976a), but it was already clearly expressed by Andrejčin (1938: 40), and it also has a long tradition in the description of other Indo-European languages (see Stankov 1966: 5–6 footnote 19 and the references there\(^\text{12}\)).

The Bulgarian present and imperfect behave syntactically in a parallel fashion. The neutralization of <FUT> in certain subordinate clauses replaces the future with the present, and the past future with the imperfect (and not with the aorist; see 2.4). The perfective present and the perfective imperfect are used in the same limited contexts and have similar meanings (see 3.2.4 and 3.2.6). There is even a morphological parallel: if the present and the aorist have different stems\(^\text{13}\) (besides the difference of the theme vowel), the imperfect is always formed from the present stem (as in piša, 1.5.2).

Both in the present and the imperfect the speaker's vantage point is in the middle of the action, process, or state
that is referred to. In the present this point coincides with the moment of speech (S); to show this, we return to a more Reichenbachian formula of this tense, viz. E simul R simul S. In the present tense both the beginning and end of the process or state are outside the speaker's view, but the same holds true for the imperfect where the point of view has been shifted to the past. Tja pee(I) 'she is singing; she sings' asserts something about the present moment and does not tell anything about the beginning and end of the on-going process (or, in the habitual reading 'she sings', of the habit). Neither does the imperfect Tja peeše(I,I) 'she was singing; she used to sing' tell us when the singing had begun or when it was going to end. In particular, she may still be singing now (cf. Dejanova 1966: 35-36; Galton 1976: 289-290\(^{14}\)).

Thus, the present and the imperfect both refer to non-bounded situations whose possible terminations remain outside the view. There are several context-dependent interpretations of this general semantic property, but most of them are found both in the present and the imperfect (cf. section 2.5). It is natural to think that the non-boundedness is a consequence of the fact that the point of reference is simultaneous with part of the situation referred to, because a view "from inside" cannot comprise the whole situation as a view "from outside" could. If we assume that the formula E simul R (as opposed to E before R and E after R) means just this,\(^{15}\) we can describe the meanings of the present and the imperfect as follows:

(ii) present: E simul R simul S
     imperfect: E simul R before S

Two things are worth noting: first, there is an R also in the present tense, after all, and, second, the formula we assigned to the preterite in (i) should actually be assigned to the imperfect only. As will be shown in 2.2.3, situations the aorist can refer to are bounded.

Now we have in fact given a new interpretation to E and the relation simul, because we have assumed that E is not a point but a whole interval of time if the situation referred to
has duration; and in this case, E simul R does not mean that E and R are entirely simultaneous but that R is simultaneous with one of the points belonging to interval E. These extensions seem justified since most situations do have duration (i.e., they are not punctual) and hence there is no single point of time which we could refer to as "the point of the situation".

Stankov (1966: passim; 1969: 100) claims that even the point of reference (orientacionnijat moment) can in fact be a period of time. If this were the case, it would not be so clear why E simul S implies that some parts of the situation remain outside the vantage point the speaker has chosen. What Stankov has in mind are instances of the "generalized present" and "generalized imperfect", as he calls them, e.g.:

(13) Ostanal(P) sam prost, Marko običaše(I,I) učenieto i uče-
nite.

'Having himself remained without education, Marko was fond of learning and learned men.'

(Ivan Vazov, quoted in Stankov 1966: 57)

The problem here is not the fact that being fond of something is a state that must last, say, several days at least to be properly so called. In every present or imperfect sentence (as in our previous examples tja pee and tja peeše) it is assumed that on both sides of R, there is a temporal environment in which the situation denoted by the sentence obtains; the probable size of this environment depends on the lexical semantics of the verb and on pragmatic factors. The problem is that if (13) is used to characterize Marko as he used to be, it may not be clear if any one point serves as the reference point of the speaker. It would be odd to say "At 5 o'clock P.M. on June 6th, Marko was fond of teaching and learned men". However, in a narrative discourse a sentence like (13) is likely to be used to explain the motives of particular actions, and then we can say that the point of reference is the time of those actions. If we are writing Čorbadži Marko's obituary, such a single reference point cannot be specified, to be sure; but I would still argue that in (13), R is vague, not that it is a true
interval. The vagueness of R means there is an interval (e.g.,
the period of Marko's adulthood) consisting of moments of which
any one could be chosen as the point of reference. A similar
solution is proposed by Šeljakin and Schlegel (1970: 74–76),
who introduce the notion of Bezugszeitraum in order to account
for prolonged situations: "Der Bezugszeitraum ist derjenige
Abschnitt der objektiven Zeit, in dessen Grenzen der Bezugsmo-
ment \(< = our R>\) potentiell liegen kann" (p. 75).16

2.2.3: Aorist. The peculiar position of the aorist is seen in
several descriptions of the Bulgarian tenses, such as those by
Pašov (1976a) and Gerdžikov (1976): the eight other tenses
constitute a neat and symmetric system in which it is difficult
to find place for the ninth, the aorist -- which is, neverthe-
less, intuitively as important a tense as the present tense is.17
The problem is that the formulae of the perfect and
imperfect seem to use up all logical possibilities for a past
tense "once removed from the present". I repeat both formulae
here for convenience:

(iii) imperfect: E simul R before S
perfect: E before R simul S

It is obvious that in the aorist, E is located before S, but
where is its R? It is not simultaneous with S as it is in the
perfect, where the speaker's view is directed from the present
backwards into the past (see 2.2.4 and 2.3). But it cannot be
in the past, either, because the aorist is not characterized by
such a "view from inside" that we found in 2.2.2 to be typical
of the imperfect. Aorist forms denote essentially bounded sit-
uations (events), each with its beginning and end. Consider an
ordinary narrative:

(14) Obárna(P,A) se i tāj kato vālkāt ošte ne beše izljazāl(P)
    ot dola, toj posegna(P,A) da razpāše(P) pojasa si, no
useti(P,A), če navojat na edinija mu krak e razslaben.
    Toj se navede(P,A), za da stegne(P) vārvite si, koito
bjaxa se razvili(P), i pärvoto dvizienie na rakata mu
oko lo kraka sreštna(P,A) na zemjata nešto meko, nababna-
lo. Toj go vze(P,A) i go pogledna(P,A) otblizo...
'He turned around, and because the wolf had not left the
ravine yet, he reached for his belt to open it, but
noticed that the puttee of one of his legs had loosened.
He bent down in order to tighten up his strings, which
had unwound, and the first movement of his hand round the
leg met on the earth with something soft and swollen. He
took it and looked at it closely...'
(Jordan Jovkov)

Every aorist refers here to a complete event that advances the
plot. There is no stable R towards which the aorists would be
oriented; each event is understood to take place after the
preceding event, i.e., after some natural interval of time has
elapsed. This is what Erik Andersson (1977: 251 ff.) has called
the natural progression of time (Swedish: den naturaliga tids-
progressionen): "a time difference between two coordinated
sentences need not be marked with a tense morpheme, if the
difference is motivated by our knowledge of the world, if it is
probable that the action of the latter sentence takes place
later than that of the former (p. 252, my transl.)." According
to Andersson (ibid.), the point of reference (relevanspunkten)
can move onward "with small jumps", sentence after sentence.
There is no aorist in Swedish, the language Andersson is de-
scribing, but his analysis gives us precisely the notion we
need in describing the Bulgarian aorist.

There are here two important points to note. First, the
aorist is not fixed by a point of reference but it has the
capability of advancing the R other verb forms can refer to.
Thus, in (14) there are two pluperfects, ne beše izljazal(P)
'had not left' and bjaxa se razvili(P) 'had unwound', whose R's
are determined by the preceding aorists -- and are different.
Second, the time progression expressed with aorists is called
"natural" for an important reason: it is pragmatically gov-
erned. In a suitable context, events referred to with aorists
can be conceived of as simultaneous or alternating, e.g.:
(15) ... dokaraxa(P,A) ... koli, deto gi kačixa(P,A), kato otdelixa(P,A) ednovremenno i ranenite.
'They brought carts, on which they lifted them, simultaneously separating the wounded, too.
(Konstantin Veličkov, quoted in Dejanova 1966: 21)

But normally a chain of aorists denotes consecutive events, forming the main line of the narrative. This type of sequentiality can only be expressed with aorists and not with, say, a pluperfect and an aorist, because the latter combination presupposes a longer interval than the natural progression would:

(16) Ti zašto ne mi objasni(P,A) pričinata, kogato te popitax(P,A) (*bjax popital(P)).
'Why didn't you explain the reason for me when I asked (*had asked) you?'
(Galton 1976: 209; originally M. Dejanova's example)

Dejanova (1966: 56) and Stankov (1966: 113-115) both stress the independence of the aorist from any past moment or, in other words, its capability of defining its own reference point. Stankov (p. 115) contrasts the following sentences:

(17a) Včera v 7 č. az otidox(P,A) na lekcii.
'Yesterday at 7 o'clock I went on lectures.'

(17b) Včera v 7 č. az otivax(I,I) na lekcii.
'Yesterday at 7 o'clock I was going on lectures.'

In (17b), the time adverbial establishes the R that part of the action is simultaneous with. In (17a) the adverbial directly defines the time of the action itself. Stankov's idea could perhaps be explicated by saying that with an aorist, a definite time adverbial further specifies the time reference of the verb, whereas with an imperfect it either establishes a new point of reference or else is coreferential with the reference point already established by the context.

Since the aorist is not dependent on an external point of
reference, it would be natural to give it the following formula:

(iv) aorist:  E before S

Now we obviously must stipulate that when R is not explicitly mentioned in a formula of a tense, it is not there implicitly, either. This means that we can no longer describe the future as E after S but must explicitly mention the three logical possibilities there are -- the future can be the mirror image of the aorist, the imperfect, or the perfect:

(v) future:  E after S,  
            or E simul R after S,  
            or E after R simul S

The choice between these will be briefly discussed in 2.2.6 and 2.6 below.

2.2.4: Perfect. We have been assuming that the formula describing time reference in the perfect is

(vi)  E before R simul S

and I think this is a basically correct solution. What it does not, however, directly show is that the perfect implies existential quantification over points of time, as was mentioned in 1.3 above. This is most obvious in the so-called existential perfects, e.g.:

(18) Viždala(I) li si tozi film?
    'Have you seen this movie?'

With sentence (18) it is inquired whether the addressee has ever seen the film in question, and not whether she saw it at a particular occasion (see 2.3 for more discussion). Even when a perfect does not have an existential interpretation in this
sense, it cannot be used to tell a story: it does not advance the plot of the narrative as the aorist does.\textsuperscript{18}

Consider these sentences:

(19a) Vsički, koito sa vzeli(P) čužda sobstvenost, šte būdat nakazani(P).

'All those who have taken <perfect> somebody else's property will be punished.'

(19b) Vsički, koito vzexa(P,A) čužda sobstvenost, šte būdat nakazani(P).

'All those who took <aorist> somebody else's property will be punished.'

In (19a) it may well be the case that the thefts have been committed on different occasions, whereas the normal reading of (19b) is that they took place on the same occasion (unless some limiting adverbial like "last August" is understood).\textsuperscript{19} The perfect is thus capable of referring to different points of time for each of the persons denoted by the plural subject: 'for each person there existed an occasion at which he committed a theft'. This reading is of course not necessary since the scopes can be the other way round: 'there existed an occasion at which all the persons committed a theft'. But irrespective of the scope, there is no such existential quantification in (19b): the occasion denoted by the aorist must be somehow specified by the context.\textsuperscript{20}

Incidentally, the future šte būdat nakazani(P) 'will be punished' is neutral as to these distinctions: the punishments may take place at different times, or there may be a common verdict; and in the latter case, the time of the trial may or may not be specified by the context. This shows that, of the three analyses of the future in (v), at least the first and the last must be considered.

The Bulgarian perfect differs from its English counterpart -- but resembles, say, the Finnish perfect -- in being entirely compatible with definite time adverbials. Thus, it is possible to say
(20) Sābudil(P) sām se dnes v 5 časa.
'I woke up at 5 o'clock today.'
(Andrejčin 1976b: 279)

whereas the literal English rendering of this sentence, namely

(20') *I have waked up at 5 o'clock today.

would be ungrammatical. This fact seems to indicate that our present analysis of the perfect may not cover all actual interpretations of this tense, even if its modal interpretations are not taken into account. This question will be taken up again in 2.3. For the time being, we will assume that the idea of existential quantification is sufficiently correct to deserve formalization.

The only possibility of showing the existential quantification in a formula like (vi) is to stipulate that E before R, as part of any formula, implies just this. But then it is not clear why the relation before behaves here differently than in the combinations E before S (as in the aorist) or R before S (as in the imperfect). That is why it is time to resort to the proposals of Needham (1975), introduced in section 1.3 above. Using our modified version of his formalism, we can describe the meaning of the perfect as

(vii) perfect: PRESx x>>y yA

where the existential two-place operator >> has the meaning 'before x there is a y such that'. What would now the aorist and imperfect formulae look like? Needham meant that a formula like

(viii) PASTx xA

would correspond to the case in which Reichenbach's R coincided with the point of the event. We will now modify his system so that (viii) actually designates the case in which there is no reference point at all:
The coincidence of $R$ and $E$ will be shown explicitly by introducing a new two-place operator "=": $x=(y$ means 'x coincides with one point of the open interval $y'$. We must further stipulate that in our tense formulae the last time variable (the prefixed superscript of the proposition variable $A$) has the set of all intervals as its domain, while the other variables are time point variables. The operators $\text{PAST}$, $\text{PRES}$, and $\text{FUT}$ can bind both intervals and points of time. So, the analysis of the imperfect must look like this:

$$(x) \quad \text{imperfect: } \text{PASTx } x=(y \quad Y_A$$

The corresponding analyses of the other tenses will be given in 2.2.6. The principal novelty of the present analysis is drawing a tripartite distinction between having a reference point in the present, having it in the past, and not having it at all -- as in (vii), (x), and (ix), respectively. Reichenbach's and Needham's systems do not distinguish between (x) and (ix), whereas some systems proposed specifically for Bulgarian (cf. 2.2.6) mix the cases (vii) and (ix).

2.2.5: Substituting $R$ for $S$. In 1.3 we mentioned the fact that consectocio temporum is not obligatory in Bulgarian. This is mainly seen in the complements of various verbs denoting mental or linguistic actions:

(21) Starijat kompozitor pišeše(I, I) nova simfonija, makar če znaeše(I, I), če šte umre(P) / šteše da umre(P) skoro.
'The old composer was writing a new symphony, though he knew that he would soon die.'

In (21), both the future and the past future are possible, but the future is stylistically less heavy.
(22) Razbrax(P,A), če nakraja šte me arestuvat(P&I) / štjäxa da me arestuvat(P&I).
    'I understood that in the end they would arrest me.'

The future and past future are both possible here, too, but the latter has an additional modal reading (cf. 4.1): 'In the end they would have arrested me (unless...).' (The sign "(P&I)" means that arestuvam is lexically biaspectual. In this context it of course has a perfective interpretation.)

In the following example, the present tense is used instead of the imperfect:

(23) Ne možeše(I,I) da se kaže(P), če Božura ja običa(I). Božura ne običaše(I,I) nikogo.
    'It could not be said that Božura loved <present> her. Božura did not love <imperfect!> anybody.'
    (Jordan Jovkov, quoted in Stankov 1969: 24)

In (24), the perfect is used instead of the pluperfect (which would be grammatical, too):

(24) Uvisnalite i razdrani pajažini po tazi vratička svidetel-stvuvaxia(P&I,I), če e stojala(I) zatvorena dâlgo vreme.
    'The hanging and torn cobwebs at the small door showed that it had stood closed for a long time.'
    (Andrejčin & al. 1977: 243)

In sentences referring to the future, consecutio is not even optional:

(25) Toj šte useti(P), če vali(I).
    'He will notice that it is raining.'

Šte vali(I) 'will be raining' would here mean that "he" will notice it is going to rain (Maslov 1981: 262).

The lack of consecutio can best be explained as follows: in certain subordinate clauses, R can be substituted for S in the formulae of tenses. This substitution makes an absolute-
relative tense (in Comrie's sense) a purely relative tense:

(xi) future\textsuperscript{21}: \(E \text{ after } R \simul S \rightarrow E \text{ after } R \simul R\)  
\(\rightarrow E \text{ after } R\)

present: \(E \simul R \simul S \rightarrow E \simul R \simul R\)  
\(\rightarrow E \simul R\)

perfect: \(E \text{ before } R \simul S \rightarrow E \text{ before } R \simul R\)  
\(\rightarrow E \text{ before } R\)

Compare these with the formulae of the past future (i), the imperfect (ii), and the pluperfect (i), respectively: the relation between \(E\) and \(R\) is always the same (after, simul, and before, respectively), which is why the transformed tenses of (xi) can substitute for these three more complex tenses.\textsuperscript{22} It would seem that the results in (xi) could be more easily attained with a rule that erases the simul \(S\) part of the formulae, but the substitution analysis is more general. If we substitute \(R\) for \(S\) in the aorist and imperfect, we obtain the following result:

(xii) aorist: \(E \text{ before } S \rightarrow E \text{ before } R\)  
imperfect: \(E \simul R \text{ before } S\)  
\(\rightarrow E \simul R \text{ before } R'\)

This means that the aorist, too, could be used instead of the pluperfect, and that the imperfect can express a more complex type of temporal anteriority than the pluperfect can.\textsuperscript{23} These substitutions are relevant in examples where the aorist or imperfect is used to refer to a situation that clearly precedes the moment that the main line of the narrative has reached (cf. Maslov 1959: 254; Dejanova 1966: 44ff.; Stankov 1966: 71ff., 1969: 120-121; Galton 1976: 127-128, 191). The use of the aorist or imperfect instead of the pluperfect is a more sporadic phenomenon than the lack of consecutio in the complements of mental verbs, but it is found in a greater variety of contexts:

(26) Na drugija den Lila otide(P,A) na rabota izmæcena ot sámnenijata, v koito ja xvárli(P,A) razgovorat s Maks.
The following day Lila went to work tormented by the doubts into which the conversation with Maks had thrown <aorist> her.'
(Dimităr Dimov, quoted in Galton 1976: 248)

Here the aorist in the relative clause clearly refers to an event that has occurred some time before the event in the main clause.

(27) Dvete snixi mesixa(I,A) x1jaba i sega palexa(I,I) furnata.
'The two daughter-in-laws had kneaded <aorist> the dough and were now heating the oven.'
(Georgi Karaslavov, quoted in Galton 1976: 209)

The aorist in (27) points farther backwards than the mere natural progression would seem to allow. In the following example, the shift backwards takes place in what is an entirely different sentence:

(28) Za vtori pât viždaše(I,I) goljamoto vlečugo. Pârvija pât go zârna(P,A) mimoxodom, beše(I,I) ošte sâvsem malko tărâležće.
'For the second time it <now> saw the big reptile. On the first time it < = the hedgehog> had spotted <aorist> it in passing, being still a tiny youngling.'
(Jordan Radičkov)

Pârvija pât 'on the first time' marks the shift backwards.

Both the perfect and the aorist can thus be used to express the E before R relation. Their distribution in this function is complementary: the perfect is only used in the complements of verba dicendi and other mental verbs, whereas the indicative aorist is ungrammatical in this environment -- even in its E before S interpretation. It is not possible to say *Toj kazva(I), če Ivan pročete(P,A) knigata 'He says that Ivan read the book' (Ivančev 1976b: 356); the perfect or the reported aorist must be used instead.
In the following example we have an imperfect moved backwards in time:

(29) Momičeto, koeto xodeše na srešti pri paraklisa, se be prevârnalo(P) neusetno v prijatelka na ženen mäž.
'The girl who had come <imperfect> to meetings at the chapel had imperceptibly changed <pluperfect> into a married man's mistress.'
(Dimitâr Dimov)

Just as a normal aorist, also the "backwards-moving" aorist has the capability of fixing the reference point of the following narrative:

(30) Misleše(I,I) si kak predi mesec-dva ot visokite vârxove na Sinite kameni ... toj vidja(P,A), če dolu po päťja idat(I) ženi.
'He thought how a month or two ago he had seen <aorist> from the high peaks of Blue Stones that there were women coming <present> along the road below.'
(Jordan Jovkov, quoted in Stankov 1966: 47)

The aorist vidjâ(P,A) 'saw' has the relative-tense interpretation E before R. Its E defines a new R that the present tense idat(I) 'are coming' can use in its relative interpretation E simult R. Note that idat is twice removed from the point of speech, yet the present tense is used. Even in a language strictly observing consecutio, there must be some possibilities of adjusting R: our English translation of (30) renders idat with 'were coming', not with 'had been coming'.

The substitution of R for S is more difficult to express in a Needham-type formalism, because the binding operators PAST, PRES and FUT do not explicitly mention the point of speech. Perhaps we could assume a rule that in certain contexts allows the whole system of a past, present, and future reference point to be shifted so that the previous past (or future) becomes the new present:
It must be mentioned that Needham explicitly denies the possibility of this kind of transmutation because he thinks that, once established, the three reference points are valid for all syntactic contexts. But he is only analyzing English, whose strict rules of consecutio make this solution feasible. Something other is needed for Bulgarian, though space does not permit to present here more elaborated proposals.

2.2.6: Recapitulation. We have now arrived at the following tense formulae, which replace those in (i):

(xiii) Temporal reference in Bulgarian tenses

Comrie's notation

present: E simul R simul S
imperfect: E simul R before S
aorist: E before S
perfect: E before R simul S
pluperfect: E before R before S
future: E after S,
    or E after R simul S
    or E simul R after S
future perfect: E before R after S
past future: E after R before S
past future perfect: E before R after R' before S
Modified Needham's notation

present: PRESx \ x=(y \ y_A
imperfect: PASTx \ x=(y \ y_A
aorist: PASTx \ x_A
perfect: PRESx \ x>>y \ y_A
pluperfect: PASTx \ x>>y \ y_A
future: FUTx \ x_A,
or PRESx \ x<<y \ y_A,
or FUTx \ x=(y \ y_A
future perfect: FUTx \ x>>y \ y_A
past future: PASTx \ x<<y \ y_A
past future perfect: PASTx \ x<<y \ y>>z \ z_A

The difference between the imperfect, aorist, and perfect can also be illustrated with the following diagrams:

The arrows pointing away from S show the speaker's different alternatives of referring to a past situation. The aorist refers to an event directly. The imperfect refers to a situation through a vantage point that is shifted from the present and is a kind of past projection of the point of speech. The perfect employs a vantage point that is a present projection of the past E (cf. 2.3 about the notion of "present relevance of a past event").

The present model is not entirely different from those proposed for the Bulgarian tenses by Stankov (1966, 1969), Pašov (1976a, 1981), and Gerdžikov (1976). They all make use of the notion of reference point (Bulg. orientacionen moment),
which can be past, present, or (except for Gerdžikov's system) future. The formulae used by these linguists for the imperfect and the past future, for example, bear an analogy to mine, although the notations do not always resemble each other. But there are also important differences, mainly in three points.

First, only Stankov defines the <+PERF> tenses as I do, by means of a component analogous with E before R. Pašov and Gerdžikov consider resultativity to be the essential property of these forms: the result of a previous "action" is present at the moment of reference. In 2.3 we will see that there indeed is more to the <+PERF> tenses than the simple E before R would suggest. But, in my view, resultativity is only one interpretation of these tenses, if we do not want to strain the notion of resultativity so as to make it practically empty (see 2.3.1).

Second, the formula corresponding to our perfect formula is assigned to the aorist by the three Bulgarian linguists. (Pašov gives, however, an alternative formula trying to account for the boundedness of the aorist independently of the present moment; but this does not really fit his overall system.) Now, it is difficult to see what it could possibly mean for the aorist to have an R in the present. As the basic narrative tense, the aorist is rather relatively independent of the present --- the events it refers to may occur in what Maslov (1980: 44) calls the "epic tunc", a world detached from the speaker's (writer's) and the listener's (reader's) reality. Moreover, positing a present R for the aorist forces one to seek the difference between the aorist and perfect either in the resultativity or, as in Stankov's case, in modality (cf. 2.3.2). Although the aorist and the perfect do also differ modally, as will be seen in 4.3, their time reference properties are not identical, either, and this is a fact that must be somehow accounted for.

And third, the position of the future tense differs in the descriptions discussed. Stankov's and Gerdžikov's solutions correspond to our E after R simul S (PRESx x< < y Y A), whereas Pašov also admits of E simul R after S (FUTx x=(y Y A), at least as a minor alternative. In (xiii) I have assigned the future three different interpretations, which are mirror images of the
three past tenses depicted in the above diagrams. This issue will be further clarified in section 2.6, but two illustrations can already be given here:

(31) Čovekāt šte bāde vinagi ljuboznatelen.
    'Man will always be curious.'

(32) Utre Marija šte bāde v bibliotekata.
    'Tomorrow Marija is going to be at library.'

The formula of the temporal reference in (31) is \( \text{PRES} x \ll y \text{YA} \). If the moment of A were bound by \( \text{FUT} \), the universal quantification of vinagi 'always' could not bind it. Now y is bound existentially by the operator \( \ll \) and universally by 'always', which is of course possible ('there will be one moment such that...') does not contradict 'all coming moments will be such that...'). The formula of (32) is \( \text{FUT} x = (y \text{YA}: \text{the sentence is a mirror image of the imperfect včera tja beše v bibliotekata 'yesterday she was at library'. (Both sentences would also be grammatical -- and more colloquial -- with the alternative future form of sām, viz. šte e.)}

Finally we can ask how the three morphosyntactic operators \( \text{PRET} \), \( \text{FUT} \), and \( \text{PERF} \) would now be translated into formulae of temporal reference. The following correspondences hold:

\[
\begin{align*}
\text{PAST} &= \text{PAST} x \\
\text{FUT} &= \text{FUT} x, \text{ or } x \ll y \\
\text{PERF} &= x \gg y \text{ (or } y \gg z \text{ if } y \text{ has already been introduced)}
\end{align*}
\]

General conditions: the resulting formula must begin with \( \text{PAST} x \), \( \text{FUT} x \), or (as the default) \( \text{PRES} x \), and there can be no other occurrences of these operators; if there are no occurrences of \( \ll \text{ or } \gg \), \( x = (y \text{ can optionally be inserted.}

The operator ordering we established in 2.1.2 on formal grounds is valid semantically, too. The translation between the two types of formulae can be done in a simple left-to-right fashion.
The optionality of "(=" seems to suggest that there are two readings of the present, viz. $\text{PRES}_x \ x=(y \ yA \ and \ \text{PRES}_x \ xA$. This question will be taken up in section 2.6. In the preterite the insertion of $x=(y$ is of course not really optional, because it is controlled by the distinction between the aorist and the imperfect.

Translations into Comrie's formalisms could also be given here, as a modification of the rules presented in 2.2.1. But it is now time to proceed to some more concrete questions.

2.3 Discourse Topic, Specificity, and the Perfect

2.3.1: The past is present. In section 2.2.4 we discussed time reference in the perfect and noted that this tense implies existential quantification over past points of time. In some instances, such as sentence (18) above, the existential quantification seems to be the main reason for using the perfect; this is its existential interpretation. But in some other cases the perfect is used because some results of a past action are still present. This resultative interpretation is exemplified by sentence (33):

(33) Kableškov e došel(P), snošti kásno, u mene e.
'Kableškov has arrived, late last night, he's at my place.'
(Ivan Vazov, quoted in Maslov 1981: 254)

Maslov (1959: 275ff., 1981: 253ff.) and Dejanová (1976a: 289) distinguish between "the perfect of action" and "the perfect of state", but this is not the same distinction as that between the existential and resultative perfect: Maslov considers sentence (33) as an example of the actional perfect, though there are clearly resultative nuances in its meaning. A perfect of state expresses an present state with only a vague reference to a past event:
(34) Práštite mu sa posineli(P).
   'His fingers have turned blue.'
   (Maslov 1981: 253)

A perfect of state is not always easy to distinguish from the structure copula + adjective: compare zakášneli(P) sme = we are late. There can even be an adverb inserted between the copula and the participle, something that would not be possible in a normal perfect:

(35) Kogato i poslednjat nemski tank otgârmja(P,A) po šoseto za Bankja, az ... počuvstuvavax(P,A), če sâm užasno izgladnjal(P).
   'When even the last German tank had lumbered away along the Bankja highway, I felt that I had gotten terribly hungry.'
   (Andrej Guljaški, quoted in Stankov 1969: 80)

The term "resultative perfect" will here be used in a broad sense to cover all cases in which present results of a past event provide a reason for choosing a perfect form. So, both (33) and (34) are resultative perfects, though only the latter is a "perfect of state" in Maslov's sense. In sentence (33) the present result is of course the fact that Kableškov is now here.

There is one more important interpretation of the Bulgarian perfect, namely the inferential, e.g.:

(36) Trjabva(I) mnogo da priličam(I) na mama -- pomisli(P,A)
   si tja. -- Kakto se vižda(I), mama sa ja znajali(I)
   vsički.
   "I must resemble my mother very much," she thought. "It seems that mother was known to everybody <lit. ...that they have all known mother>.'"
   (Jordan Jovkov, quoted in Děmina 1959: 321)

This use of the perfect is not found in English, but it is quite normal in German (Weinrich 1964: 84-84) and the Scandina-
vian languages (Haugen 1972: 137-138; Kinnander 1973, with abundant examples). In Bulgarian it has given rise to a whole new series of perfect forms. These forms and their relation to the resultative perfect will be discussed in section 4.3; for the time being we will only concentrate on the existential and resultative perfect.

The resultative interpretation is too concrete to cover the clearly existential cases, and the existential interpretation does not obviously entail any resultativity: xoril sām na Vitoša 'I have been to Vitoša' does not necessarily require that I or Mount Vitoša have changed in any way owing to my visit thereon. (Of course the excursion now belongs to my past experiences, but that would have been the case even if I had reported of it using an aorist.) There is more to the perfect than the mere time reference formula \textit{Pres}_x \textit{r}_y yA would suggest, although this formula is by no means wrong in itself.

It is often said that the meaning (= Gesamthebung) of the perfect always implies a continuing present relevance of a past situation (e.g. Comrie 1976: 52). There is some truth in this definition, but there are also two problems. First, it is not clear what are the independent criteria for "relevance". Second, the definition does not explain why the temporal reference properties of the perfect cannot be overruled by any considerations of present relevance: no matter how important a past history is for understanding the present state of affairs, we cannot tell it with perfects. The perfect is a discursive, not a narrative tense as the preterite is (Weinrich 1964; Benveniste 1966; Lyons 1977). This is not an arbitrary grammatical distinction but reflects deeper differences in the way man can choose to conceptualize the flow of events around him.

In our everyday ontology, things carry their histories with them. A man born in Helsinki will remain a man born in Helsinki till the end of his life, though nothing in his body shows where he was born; perhaps his parents are not Finnish, he does not speak Finnish, and he has not lived in Helsinki ever since; but he is still a man born in Helsinki. We see nothing strange in this: his place of birth is simply his permanent property. It seems that everything that has happened
can, when needed, be interpreted as a property of the entities that participated in that happening, or even of the entire present world. The Bulgarian perfect, with its auxiliary săm 'to be', formally assigns the past-event property to the subject; the Macedonian (and marginally Bulgarian: see 2.1.1) imam ('to have') type seems to assign it to the object -- but actually there is no semantic difference: the past event is the property of the present state of affairs, or the present state of the world.

Weinrich (1964: 77) is worth quoting:

Die Sprache kennt zweierlei Art Vergangenheit: eine, die unmittelbar zu mir gehört und die ich bespreche genau wie die Dinge, die mir in meiner Sprechsituation leiblich begegnen -- und eine andere, die durch den Filter der Erzählung von mir distanziert ist.

Kempson (1975: 108) hides an important suggestion in a footnote:

... past tense is an opaque context describing a world which is necessarily not co-extensive with the present, whereas perfect aspect28 does not provide an opaque environment but is interpreted as co-extensive with the present.

It really seems as if natural language has two alternative conceptualizations of time. The events in the preterite tense proceed in linear time, whereas the perfect presupposes an integrative view in which past events are present. The existential perfect can now be explained as follows: existential quantification is a kind of search29 and the search domain must first be defined. It can only be a particular state of the world, not the set of all world states -- which would make the search a second-order one -- hence quantification over events requires that they be subsumed under the epistemically primary present state of affairs.

The preterite locates events in a different world which
is known to have existed before the present world; the perfect
refers to previous events that are still parts of the same
world we are now in. It is as if some major operators "WORLD"
and "TIME" had different scopes in these contrasting tenses.
Admittedly, I am now using the word "world" in a rather vague
sense (though its meaning could be fixed and formalized in,
say, model-theoretic semantics). In its stead I will introduce
the notion of topic period.

"Topic" is one of those unfortunate linguistic terms
which have a host of mutually exclusive meanings, but which
cannot be replaced with anything better without creating a
still greater terminological confusion. A distinction must be
made between sentence topic and discourse topic: the former is
a certain constituent of a sentence (the theme, in one inter-
pretation), or perhaps its referent when the sentence is ut-
ter, while the discourse topic is simply what a given (piece
of) discourse is about, and need not be expressed with any
explicit formal means (Brown & Yule 1983: 68ff.). The topic of
a discourse is not always a well-defined entity -- there may be
several topics, or the single topic may be definable at various
level of abstraction. Yet, there is a domain the discourse is
roughly about and, in particular, there is a period of time the
discourse is referring to, the topic period. In a typical
narrative, the topic period is a past stretch of time. In what
Weinrich (1964) calls Besprechung the typical topic period is
the present.

Now, the main difference between the preterite and the
perfect is that the former pertains to a past topic period, the
latter to a present one. The perfect not only expresses present
relevance -- it is about the present. This is a deeper inter-
pretation of the "PRESx" part in its formula: the function of
the reference point is to locate the period about which we are
speaking (cf. Šeljakin & Schlegel 1970: 65). The perfect sig-
nals that although the speaker is referring to a past situa-
tion, the discourse topic is the present state of affairs. The
perfect expresses a past embedded in the present (cf. Dinsmore
1981), as the imperfect expresses a present embedded in the
past.
2.3.2: Occasions, specificity, and resultativity. The facts discussed in section 2.2.4 indicate that the aorist refers to a particular past occasion, whereas in the perfect the time reference is non-specific. Stankov (1966: 108ff., 1969 passim) says that the aorist "localizes" the action in time and refers to a "definite" (opredelen) moment. To him, the opposition between the aorist and the perfect is not temporal but "aspectsual in a broad sense" (Stankov 1969: 5 footnote 1, 92). In this respect he follows Maslov (1959), though he does not accept Maslov's idea that the aorist / imperfect opposition is aspectsual "in a broad sense", too. But I think the distinction between the aorist and perfect is temporal because it is not connected with any differences in denotation, i.e. situation types (see 3.1).

Instead of "definiteness" it is more correct to speak of specificity, as the following example shows:

(37) -- Kâde e Ivan? -- Zamina(P,A) za Burgas.
"Where is Ivan?" "He left for Burgas."

Stankov (1966: 109) comments upon this example as follows (my translation): "The inquirer does not become informed when the departure of Ivan took place. He only learns that Ivan left at a definite (opredeleno) time." In other words, the answerer has a particular occasion in mind, but the other speaker is not presupposed to be able to identify it. But this means that we are dealing with specificity, not with definiteness.

Stankov (1966: 108ff.; 1969: 88) connects the "definiteness" of the aorist to what we will later call "evidential modality" (4.3). The speaker can use an aorist form only if he or she has been an eyewitness of the event in question, whereas in the perfect there is no such presupposition. According to Stankov, the localizing character of the aorist is linked with this fact. But the "eyewitness" requirement only concerns the indicative aorist; in the reported aorist the requirement is that the speaker has not been an eyewitness of the event but has been told about it. On the other hand, the time reference properties of the reported aorist have not been shown to be
different from those of the indicative aorist. It is therefore a mistake to connect specific time reference and evidential modality.

We have used the word occasion several times instead of "time point", "moment", or "interval". It is indeed more natural to say that the aorist refers to a specific occasion than that it refers to a specific point of time.\textsuperscript{30} In other words, the time line is not sufficient for modeling the human conceptualization of courses of events. If we take an arbitrary aorist in the middle of a narrative, it may not be at all clear to which date and hour it pertains, but its position in the course of events in the story is perfectly well defined. Perhaps we could say that as time consists of moments, history consists of occasions. This is not entirely correct because of course history rather consists of events; but occasions are the slots for those events. Occasion can now be defined as a slot for an event in a course of events.\textsuperscript{31} Although I cannot give a more precise definition, I assume that the notion of occasion has become intuitively clear enough by now to be used when needed.\textsuperscript{32}

It is now clear why the perfect is not a narrative tense. Since a perfect form refers to a non-specific occasion, a chain of perfects is not an appropriate way of reporting a chain of events in which the previous events open a slot for each new event.

There are two variants of non-specificity, viz. the existential perfect and the resultative perfect defined above. In the latter the non-specificity seems to be somehow "weaker", as it can be used even when there is a definite temporal adverbial:

(38) Sábudil(P) sám se dnes v 5 časa.
'I woke up <lit. I have waked up> today at 5 o'clock.'
(Andrejčin 1976b: 279)

(39) Vlakát e zaminal(P) v 3 časa.
'The train departed <lit. has departed> at 3 o'clock.'
(Thelin 1978: 46-47)
This is a context type in which there are important differences between perfects of different languages: in the English translations of these sentences the perfect would be ungrammatical, whereas in Finnish it would be perfectly correct, especially in (38), where there are several feasible resultative interpretations on hand, depending on the context -- e.g. I have woken up early and am therefore tired. In the meaning of the English perfect the non-specificity of time reference is such an important feature that it cannot be overruled by resultativity. This holds true even in instances where the specificity is only implicit:

(40) Koj e napisal(P) "Tjutjun"?

In English, we would normally ask Who wrote "Tobacco"?, not *Who has written "Tobacco"?, because for every book there was one specific occasion on which it was written (for a detailed discussion, see Dinsmore 1981). In Bulgarian (and in Finnish, for that matter) a perfect is used by virtue of the fact that the novel "Tobacco" is part of the present world.

Two alternative hypotheses could now be formulated. We can assume that non-specific time reference is not defined in the same way in languages like Bulgarian and languages like English; or we could say that in Bulgarian, resultativity can overrule the presupposition of temporal non-specificity. Both of these assumptions may be partly true. At least in (40) there does not seem to be anything that would necessarily contradict non-specific time reference. The time at which "Tobacco" was written is only specified by the trivial fact that it must have coincided with the (gradual) beginning of the existence of the book; sentence (40) does not presuppose specificity over and above that. Also in (38) and (39), though the times at which the events took place are explicitly indicated, there is still some non-specificity as regards the occasions: the events are not placed in the context of other events. Admittedly the explanation here becomes a bit strained and we must also consider the other possibility, namely that in some contexts resultativity can simply overrule non-specificity in Bulgarian
(but not in English). This hypothesis is supported by the fact that a definite time adverbial can be used with a perfect only if the perfect has a resultative interpretation -- if this is a fact. Stankov (1976d: 68) marks the following sentences as ungrammatical:

(41) *Ti napravila(P) li si včera salata?
     *'Have you made salad yesterday?'

(42) *Ti snošti izmil(P) li si se?
     *'Have you washed yourself last night?'

Unfortunately the ungrammaticality of these sentences outside any context does not seem to be so obvious. They were judged as wholly or at least marginally grammatical by 6 and 4, respectively, of my 13 informants (of various ages, all from Sofia). The judgments were sometimes quite categorical, in both directions, but certain informants had difficulties in making up their minds. I presume the informants who accepted the sentences were those who could conceive of some kind of resultative reading for them: the salad may still be there, uneaten, and there may be water on the floor in the bathroom -- in which case resultativity shades into inferentiality. (When I myself judge the literal equivalents of (41) and (42) in Finnish, viz. Oletko tehnyt eilen salaattia? and Oletko peseytinyt eilen illalla?, they sound neither ungrammatical nor queer, but admittedly it is not easy to imagine a context in which they could be used.)

I tried to construct an example where it would be still harder to find any resultativity because the verbs are imperfective:

(43) *Snošti sâm slušal(I) radio i sâm čel(I) vestnic.
     *<lit.> Last night I have listened to the radio and have read newspapers.'

But the result was no better: 8 informants accepted the sentence, 4 rejected, one could not decide. Obviously even here
readings can be found which save the sentence. The perfect
would be possible in enumeration, for instance: 'Last night I
have listened to the radio; I have read newspapers; I
have...'33 Of course all informants agreed that with the sub-
stitution of aorists for the perfects, (43) would become a
completely normal sentence:

(43') Snošti slušax(I,A) radio i četox(I,A) vestnici.
 'Last night I listened to the radio and read newspapers.'

To sum up, we can only conclude that an existential perfect
cannot be used with a definite time adverbial, which is hardly
any conclusion at all. It does not yet prove that the result-
ative perfect suppresses the time reference properties of this
tense, for assuming that the existential perfect represents the
time reference properties of the perfect in their purest form
would beg the question. But since at least the inferential
interpretation does require that the non-specificity of time
reference be canceled, it seems plausible that this could also
be the case with some resultative perfects.

This conclusion is further supported by the fact that
when a sentence has a clearly resultative meaning, a perfective
perfect and a perfective aorist can sometimes be all but synon-
ymous. Maslov (1959: 282-283) pointed out the semantic proxi-
imity in pairs such as dali(P) sme obeštanie 'we have given a
promise' and dadoxme(P,A) obeštanie 'we gave a promise'; došal
(P) sām 'I have come' and dojdox(P,A) 'I came' (cf. also Galton
the perfect-like meaning of perfective aorists can only be
found in "isolated" utterances in conversation, i.e. outside a
narrative context. Consider the following sentences:

(44) Časāt e veče dva. Objadvali(P&I) li ste / Objadvašte
(P&I,A) li?
 'It's already two o'clock. Have you eaten dinner / Did
you eat dinner?'
In each pair, the interpretations are very similar, but the aorists can convey some additional information. In (46), for instance, the aorist may be used because the speaker has asked the addressee to wash his hands, so that the action was expected (cf. 3.3.2), or because the speaker has seen him go to the bathroom. In this case the aorist refers to a specific occasion.

In negative sentences the difference between the aorist and the perfect is more manifest. With ošте ne 'not yet', the aorist is ungrammatical (cf. also Dejanova 1966: 42):

(47) Tja ošте ne e došla(P).
'She hadn't come yet.'

(47') Tja ošте ne dojdè(P,A).
'She didn't come yet.'

Sometimes a negative aorist is connected with stronger presuppositions than a perfect would be. It would be misleading to say

(48) Ne učastvuvax(P&I,A) v tozi kongres.
'I didn't take part in that congress.'

if the speaker was only a child at the time of the congress or could otherwise not have qualified as a participant. In other words, the speaker must have had an opportunity to participate. In the same vein,
(49) Ne proćetox(P,A) tvojata statija.
   'I didn't read your article.'

implicates that the speaker would have had an opportunity to
read the article but chose not to do so (at least not to read
it to the end), hence it would be more polite to say

(49') Ne sâm čel(I) tvojata statija.
   'I haven't read your article.'

with an existential perfect (which has to be imperfective --
see 3.3.2).

Although the semantic closeness of the aorist and the
perfect is mainly found in resultative cases, and although
existential sentences, such as (47) or (49'), only accept the
perfect, Dejanova (1966: 15; 46-47) has come across some exam-
pies where an aorist seems to have an existential interpreta-
tion:

(50) Az nikoga ne dirix(I,A) bogatstvo,
   'I never sought wealth.'

(51) Nikoga ne te vidjax(P,A) da vzemeš(P) kniga.
   'I never saw you take a book.'

But Dejanova does not give fuller contexts for these sentences,
which she reports as a quotation from P. K. Javorov and as an
overheard utterance, respectively. Both examples resemble the
negated aorists that will be discussed in 3.2.5 below: the
negation is conceived of as an open situation (a prolonged
absence of a certain type of event). Nikoga 'never' does not
guarantee that we are dealing with a quantification over all
past moments; the context may well give a limiting topic pe-
riod.
2.3.3: Pluperfect. The Comrie-type formula of the pluperfect, viz. E before R before S, has two possible interpretations: the pluperfect can be the past of the perfect, or the past of the preterite (cf. McCawley 1971: 102-103). The Needham-type formula we gave in 2.2.6 (\textsc{Past} \ x \gg \ y \ y A) suggests that the former is the case; but both alternatives should be considered. Their difference can be illustrated with the following diagrams, to be compared with those given in subsection 2.2.6:

\begin{align*}
\text{<A> PAST OF PERFECT} & \quad \text{<B> PAST OF PRETERITE} \\
\end{align*}

In <A>, the pluperfect has shifted the present R of the perfect into the past; the pluperfect should therefore appear in the same two variants (existential and resultative\textsuperscript{36}) as the perfect does, and imply existential quantification over points previous to the shifted R. In <B>, the pluperfect refers to a past situation from a past reference point in the same way the aorist refers to it from the point of speech; it only expresses anteriority, without the meaning features typical of the perfect. Actually <B> is not the past of the preterite but only the past of the aorist. In the pluperfect there is no possibility of making a distinction similar to that between the aorist and the imperfect, because the past participle a pluperfect form contains has to be aorist based (cf. 4.3).

Interpretation <B> is only of minor importance in Bulgarian. As was amply illustrated in 2.2.5, the perfect, aorist, and imperfect tenses can often be used instead of the pluperfect to express anteriority. An analogous situation seems to hold in all the Slavic languages that have preserved the pluperfect (Maslov 1980: 54, 58-59). There are nevertheless some constructions in which the temporal relation between two events is best shown by using the pluperfect, e.g.:
(52) Ne bjax ošte zatvoril(P) oči, kogato me izvikaxa(P,A) pri komandira.  
'I had not yet closed my eyes, when they called me to the commander.' 
(Ž. Kolev, quoted in Galton 1976: 210)

As noted in 2.3.2, ošte ne cannot be used with an aorist, and since the clause in question is a matrix clause, a mere perfect would not be sufficient, either, for expressing anterior past.

Outside complex sentences that indicate temporal relations, the pluperfect is not normally used to express mere anteriority. This is due to the fact that the plot of a narrative can only move in one topic period at a time; the previous situations are only mentioned insofar as they bear on the events of the topic period. This means that the pluperfect is related to a past period just as the perfect is related to the present, according to <A> above. The only example Maslov’s grammar (1981: 257) gives of the anterior-past function of the pluperfect looks like this:

(53) Izljazoxa(P,A) i zastanaxa(P,A) sreštû kupeto. Nikoga v života si te ne bjaxa viždali(I) tolkoova otblizo ares tant.  
'They came out and took their stand in front of the compartment. Never in their lives had they seen a prisoner from so close by.' 
(Kamen Kalčev)

But as Maslov himself notes, the pluperfect in (53) also expresses continuing relevance (aktual’nost’): the people in question had never seen a prisoner, therefore they now wanted to have a look at one. I would add that bjaxa viždali is an exact parallel to an existential perfect -- nikoga 'never' quantifies over all the past moments of the people’s lives before the topic period.

According to Andrejčin & al. (1977: 244), the following sentence, quoted from Ivan Vazov, expresses "only anteriority of the action, without a resultative shade":


(54) Kato beše živjal(I) dālgo vreme meždu turci, toj beše zapoznat dobre s nравite im i s ezika im.
'As he had lived among Turks a long time, he was well acquainted with their customs and their language.'

But the sentence explicitly states that as a result of his living among the Turks, he now knew their customs and spoke their language, so this is a clearly resultative case after all. Similar objections could be raised against at least part of the examples Stankov (1969: 119ff.) produces as instances of purely chronological ordering. I assume that for the Bulgarian pluperfect the "past perfect" interpretation is far more important and context-independent than the "past preterite" ("anteprior past") interpretation is, and that within the "past perfect", it is the resultative meaning that prevails, more than in the perfect.

The central position of the resultative pluperfect is the best explanation I can give to the curious fact that the verb sām 'to be' has no pluperfect tense at all (*bjaq bil). Galton (1976: 210) tries to explain this fact by claiming that sām has no semantic content "and can, therefore, by itself hardly ever indicate anything that was relevant later". This does not make sense: sentences in which sām occurs certainly express all kinds of things with potential relevance -- nobody assumes that the pluperfect of sām, if it existed, would appear without complements. Moreover, the perfect bil sām is an entirely normal form, yet Galton ascribes "continuing relevance" both to the perfect and to the pluperfect. I would rather think that it is the absence of result in 'to be' which makes it incompatible with the Bulgarian pluperfect.
2.4 Temporal Reference in Embedded Clauses

2.4.1: Neutralization of <FUT>. As noted in 2.1.3, the distinction between <+FUT> and <-FUT> tenses is neutralized in subordinate clauses of time or condition, so that only the <-FUT> tenses are used. In particular, the present tense is used instead of the future, and the imperfect instead of the past future, after the conjunctions kogato 'when', kato 'as, when', štom 'as soon as', sled kato 'after', and ako 'if'.

Here are some illustrative sentences:

(55) Kakto kazva(I) edna pogovorka -- tozi most šte premine-
me(P) <sic>, kogato stignem(P) do nego. 'As a proverb has
it -- that bridge we will cross when we arrive on it.'
(Jordan Radičkov) // Kogato svărši(P) sâbranieto, šte
se pribera(P) v kâšti. 'When the meeting is over, I will
return home.' (Stankov 1966: 17) // Ako ne se bojat(I)
o t mene, šte se kačat(P) na glavata mi. 'If they are not
afraid of me, they will get out of hand.' (Dimităr Dimov,
quoted in Maslov 1981: 246) // ...gospodin generalni-
jat direktor si zapazvaše(I,I) pravoto na po-silnija da
počne(P) pregovorite, kogato namereše(P,I) za dobre, t.e.
kogato gladnata, iztoštena masa počnešë(P,I) da se vrâšta
(I) na rabota pri starite uslovija i rabotničeskite dele-
gati prestanexa(P,I) da bădat(I) veče delegati. 'Mr.
general director reserved the stronger's right to start
the negotiations when he saw < = was going to see > fit,
i.e. when the hungry, exhausted mass began < = was going
to begin> returning to work at the old conditions and the
workers' representatives ceased < = were going to cease>
to be representatives any longer.' (Dimităr Dimov) //
Štjax sam da postradam(P), kogato po-natatâk se razjasne-
še(P,I) cjalata pogreška. 'I would suffer myself when
later on the whole mistake was < = was going to be>
discovered.' (K. Veličkov, quoted in Dejanova 1966: 23)
// ...ošte v párvata minuta, sled kato otkriexa(P,I)
ogan po nabližavaštite nemci, vârxu mogilata šteše da se
xisipe(P) adskí zalp ot mini. 'At the first moment after
they had opened <imperfect> fire at the approaching Ger-
mans, an infernal volley of shells would fall on the
hill.' (Dimităr Dimov)

Šte and štjâx, as markers of the future and past future, re-
spectively, are normally ungrammatical in such clauses. If,
however, they carry the meaning 'to intend, to want', they are
possible:

(56) Ako šte se xramiš(I) v stola, eto ti menjuto za utre.
'If you are planning to eat in the canteen, here is to-
morrow's menu.'
(V. Barux, quoted in Stankov 1976d: 96; see also Stankov
1980: 131-132)

Note the close parallelism between šte and the English will
(which both derive from verbs meaning 'to want, to will'): they
cannot be used in temporal or conditional clauses as future
markers, but it is possible to use them there in their more
"lexical" meanings (cf. e.g. Comrie 1982). This comparison is
useful also for establishing the grammatical status of šte. It
is usually called a particle because it is not conjugated in
persons and does not require da between it and the main verb.
The English will does not participate in person agreement,
either, and allows no to before the main verb; šte could there-
fore be considered an auxiliary similar to will. The problem is
that there are several such auxiliaries in English, whereas šte
is the sole one of its kind in Bulgarian — but only as regards
the lack of da, for the modal verb trjabva 'must', for in-
stance, also has one and the same form in all persons.

Sometimes the neutralization of <FUT> is extended to
relative clauses:
(57) Spored tova, kakvoto storexa(P,I) turcite, štjajme da im otvärnem(P) i nie.
'According to what the Turks would do, we would give them back.'
(Anton Dončev)

Stankov (1969: 104) reports to have heard the following utterance:

(58) Toj šteše da kupi(P) knigata, kojato si izbereše(P,I).
'He was going to buy a book he would choose <imperfect> for himself.'

The examples I am aware of are all identifying (restrictive) relative clauses which pick a referent from a set. Compare the following sentences:

(59a) Kojto izpälni(P) želanieto mi, šte polući(P) cjaloto mi bogatstvo.

(59b) Onzi, kojto izpälni želanieto mi, šte polući cjaloto mi bogatstvo.

(59c) Kojto šte izpälni želanieto mi, šte polući cjaloto mi bogatstvo.

(59d) Onzi, kojto šte izpälni želanieto mi, šte polući cjaloto mi bogatstvo.

'(He) who fulfills my wish will acquire all my riches.'

Šte is usually optional (cf. (59b) and (59d) above), but when the relative clause is used absolutely, i.e. without a correlate, it sounds better without the future marker -- cf. (59a) and (59c).

Ju. Trifonov, a Bulgarian linguist of the beginning of the century, seems already to have noticed the connection between omitting šte and choosing from a set of possibilities. According to him, šte is left out when "we are speaking of one or more cases from among a greater number of possible ones" (quoted in Andrejčin 1938: 37, my transl.).

Stankov (1966: 51, 78; 1969: 28, 104-105) argues that
when the present and the imperfect are used instead of the future and past future, respectively, in temporal and conditional embedded clauses, they do not realize their basic meanings. The futural meaning of these tenses is, according to Stankov, an independent minor meaning which cannot be derived from their Gesamtbedeutungen. I do not think, however, that such an assumption is necessary if we allow neutralization at least some role in our model of grammatical semantics. Note that Stankov's solution would make it an accidental fact that both the present and the imperfect behave in the same way. But of course neutralization must be strictly defined, as I attempted to do in section 2.1.3.

2.4.2: Sām and bāda. The verb 'to be' has two series of present tense forms in Bulgarian: sām, si, e, sme, ste, sa and bāda, bādeš, bāde, bādem, bādete, bādat. The members of the sām series are enclitic, those of the bāda series orthotonic, but this is not the major factor determining their distribution. Bāda cannot be used as a present tense form in a main clause. It is only used (i) in the <+FUT> tenses: šte bāda 'will be', štjax da bāda 'was going to be, would be', šte bāda + participle (in the future perfect), etc.; (ii) in the so-called da-construction (da bāda); and (iii) in temporal and conditional embedded clauses (Maslov 1959: 292-294, 1981: 261). In all these cases bāda can be replaced with sām, which makes it difficult to characterize the place of bāda in the system. Bāda is often used in contexts typical of perfective present tense forms (cf. 3.2.4), but it cannot be considered a real perfective verb because it is also used in complements of phasal verbs (prestanax da bāda... 'I ceased to be...').

In the future and other <+FUT> tenses, šte bāda is a somewhat bookish form, while šte sām is more colloquial. There are also some non-stylistic differences. In the future and the future perfect, šte sām (and šte da sām) is the only possibility when the meaning is modal (epistemic: see 4.2 and 4.3). Only šte bāde, not šte e, can be used in the meaning 'so will it be', 'I'll do that' (Latin fiat). Compare also these sentences:
(60a) Utre magazināt šte bāde otvoren ot 8 do 18 č.
(60b) Utre magazināt šte e otvoren ot 8 do 18 č.

(61a) Utre magazināt šte bāde otvoren v 8 č.
(61b) Utre magazināt šte e otvoren v 8 č.

Sentences (60a) and (60b) have the same meaning: 'tomorrow the shop will be open from 8 A.M. till 6 P.M.' (= utre magazināt šte rabotī(I) ot 8 do 18 č.). Sentences (61a) and (61b) have one reading in common: 'tomorrow at 8 A.M. the shop will be open' (having been opened, say, at 7 o'clock). But only (61a) has the reading 'tomorrow the shop will be opened at 8 A.M.'. Only bāda can form a true future passive. In this respect it is a counterpart of the now obsolete aorist bidōx (see 2.1.3).

In this study I have unfortunately not been able to account for the use of tense and aspect forms after the complementizer da as extensively as this topic would deserve. But if da-constructions are regarded as embedded sentences, the functions (ii) and (iii) of bāda are not really distinct. Bāda is used (i.e., can be used) in just those subordinate clauses where the feature <FUT> is neutralized, and it usually has a future meaning. Hence we have a kind of stripped future in which šte has been omitted:

(62) ... sled vreme, kogato bādat obnarodvani(P&I) vsički materiali za Bloka, togava šte bādat napalno izjasneni(P) i njakoi sporni vāprosi ...

'After some time, when all the material about Blok is published <or has been published>, then some controversial issues will be clarified, too.'

(Andrejčin 1938: 36-37, 1978: 187)

There is also a reported-mood form:

(63) "Nadeždata" na evangelistite ... bila na olimpiadata v Los Anželos da bādelo postignato(P) "goljamo religiozno svetovno obnovlenie".

'The evangelists' "hope" is/was <rep. mood> that at the
Los Angeles Olympics a "great world-wide religious renewal" will/would be <rep. mood> attained.'
(Rabotničesko delo)

There is even a rare imperfect bădex, used in contexts in which the imperfect replaces the past future, especially in its modal meaning (see 4.1):

(64) Dori ako bădexa povikani(P) s radiograma, blizkite njama-
še da pristignat(P) predi smrtta.
'Even if they were summoned with a wireless telegram, the relatives would not arrive <in time> before the death.'
(Dimităr Dimov)

Sometimes băda seems to be used not with a future but with a present meaning:

(65) A kato băde za Galunka, zašto da ne otidem(P).
'Since it has to do with Galunka, why not go?'
(Jordan Jovkov, quoted in Maslov 1959: 293, 1981: 261)

The following sentence is from Valentin Stankov -- i.e. it is not one of his examples but he has used it himself:

(66) Kogato formatza za sešajno vreme băde upotrebena(P) za
predavane na minali dejstvija, tja služi ...
'When the present-tense form is used for expressing past actions, it serves ...'

In da-constructions it is quite common to find băda without a futural meaning -- in habitual sentences, for instance:

(67) ... vseki cvjat trjabvaše(I,I) da se obraboti(P) vnima-
telno, ni edno cvetče ne bivaše(I,I) da băde propusna-
to(P).
'Every flower had to be carefully processed, not the tiniest blossom could be overlooked.'
(Jordan Radičkov)
In (62), (63), (64), (66), and (67), bāda is used as the auxiliary of the passive, and in (61) it favors the passive interpretation. This may remain its main use if sām conquers the future in the copula function. What was originally the suppletive future of sām may become a specialized passive auxiliary of futural and subordinate contexts, with a distribution resembling that of a perfective verb.

2.4.3: 'When', 'while', and 'until'. Kogato 'when' and, in its temporal meaning, kato 'id.' are temporal connectives that usually indicate at least partial simultaneity of the situations denoted by the matrix and embedded clause:

(68) Kogato az četjāx(I,I), tja slušaše(I,I).
'When I was reading, she was listening.'

(69) Kogato az četjāx(I,I), tja vleže(P,A).
'When I was reading, she entered.'
(both from Maslov 1981: 395)

Sentence (69) is an instance of the Inzidenzschema as defined in 1.4.6.

'But if both clauses contain a perfective verb, the two situations are interpreted as successive events (cf. also Heinämäki 1974: 38ff.):

(70) Kogato vleže(P,A), tja otvori(P,A) prozoreca.
'When she entered, she opened the window.'
(Maslov, ibid.)

Notice that the interval between the two events can only be as long as the natural progression of time (see 2.2.3) permits.

Thus, aspects can be used to express temporal relations, though in the preterite the tense redundantly contributes to the interpretation, too, perfective verbs being usually in the aorist, imperfective verbs in the imperfect (for complications due to iterativity and other factors, see 3.2). The aspect also
essentially contributes to the interpretation of the connective dokato, which means 'while, as long as' with an imperfective verb, and 'until' with a perfective (Maslov 1959: 227-229; Lazarova 1979: 356, where (71) and (72) are taken from). The main clause normally contains an imperfective verb, or a perfective future or past future.

(71) Tuk šte živee(I) Konstantin Trofimov, dokato prodalžava (I) simpoziumat na fizicite.
'Konstantin Trofimov will live here as long as the physicists' symposium continues.'
(Andrej Guljaški)

(72) Orelat xvarči(I), dokato izpusne(P) poslednija si dax.
'The eagle flies till it yields its breath.'
(Nikolaj Xajtov)

Aronson (1977: 24) claims that kato and dokato are principally used with perfective verbs only, but this is far from true: both aspects are used and each has its own interpretation.

In the rare case that both the dokato clause and matrix clause predicate are perfective aorists, the meaning is 'while':

(73) Dokato kolite opasaxa(P,A) ploštada i sprjaxa(P,A), dokato bojcite se postroixa(P,A), iznevidelica okolo tjax se sâbra(P,A) masa narod.
'While the cars drove round the square and stopped, while the soldiers were drawn up, lots of people gathered around them out of nowhere.'
(K. Krâștev, quoted in Stankov 1969: 97)

Sentence (71) also illustrates the fact that the present tense is used instead of the future in a dokato clause. The imperfect is likewise used instead of the past future, when the sentence refers to the past:
(74) Dokato obsipexa(P,I) biloto na mogilata s ubijstven ogan, štjaxa da minat(P) ošte njakolko minuti.
'There were still some minutes left until they poured their deadly fire on the top of the hill.'
(Dimitar Dimov)

(75) Dvete mašini preminaxa(P,A) iz selo i vljazoxa(P,A) v dvora na Vâlčana. Tuk te štjaxa da ostanat(P), dokato dojdeše(P,I) vreme za vâršitba.
'The two machines passed through the village and entered Vâlčan's yard. They would stay here until the threshing time came.'
(Jordan Jovkov 44)

There is nothing strange in a perfective imperfect like dojdeše in (75). The perfectivity is necessary for the 'until' meaning to be realized; the imperfect is a regular substitute for the past future. Thelin (1978: 55) is not right in saying that the dojdeše form in this sentence should be analyzed "as an expression of a more complex aspectual structure, viz. so that it conveys both duration and totality". There are occurrences of the perfective imperfect this description could fit, to be sure (cf. 3.2.4 for general analysis of perfective imperfects). But the source of the imperfect in this sentence should still be primarily sought in the parallelism of the present and imperfect as carriers of future and past future meanings (cf. Andrejčin 1938: 41).

Sometimes the perfective and the imperfective are apparently interchangeable after dokato (Stankov 1976d: 55):

(76) Az šte stoja(I) na selo, dokato pribirat(I) / priberat(P) rekoltata.
(for transl., see below)

The alternation is due to the double semantics of dokato. With an imperfective verb we translate 'I will stay in the country as long as they are harvesting the crops', with a perfective 'I will stay in the country until they harvest (= have harvested)
the crops'. The interpretation is practically the same with both aspects, provided that the imperfective aspect of the verb denotes a process leading eventually to a complete event denoted by the perfective. Such verbs are called telic (see 3.1.3).

Sometimes we find dokato with negation in the meaning 'until' (+ positive sentence):

(77) Dokato ne vidja(P) Jurtalana v kāštata si ... az taja rabota ne ja imam(I) za opečena.
'Until I see Jurtalan in my house, I do not consider that this has been taken care of.'

(Georgi Karaslavov, quoted in Maslov 1959: 24)

This use is actually based on the 'while' meaning: 'as long as not X' comes semantically near to 'until X' (though in other languages the corresponding expression are of course not necessarily synonymous). In Russian poka ne, literally 'while not', is the normal way of expressing 'until': ne uxdodi, poka ne vernus' 'don't go before I come back', lit. 'don't go as long as I don't come back'. Since this is possible in Bulgarian, too, (ne izlizaj, dokato ne se värna 'id.'), but dokato can also by itself express the meaning 'until', negation is optional in the context dokato + perfective verb:

(78a) Nie trjabvaše(I,I) da čakame(I), dokato prepodavateljat dojdeše(P,I).
(78b) Nie trjabvaše(I,I) da čakame(I), dokato prepodavateljat ne dojdeše(P,I).
'We had to wait until the teacher came.'

A further complication arises from the fact that even when the sentence refers to the past, the present tense is possible after dokato:

(79) Nie trjabvaše(I,I) da čakame(I), dokato prepodavateljat (ne) dojde(P).
'Id.'
It seems that the present tense is mainly used when the event in the dokato sentence is not seen from a past reference point as something that was only going to happen, but is looked at from the present as a fait accompli:

(80) Vednâž go Zapitax(P,A) zašto trjabvaše(I,I) tolkova vreme da se čaka(I), dokato počnem(P) rabotata sred rabotnicite.
'Once I asked him why we had had to wait so long until we started <present tense> the <political> work among the workers.'

(81) ... ostavixa(P,A) go da leži(I) v kolibata si, dokato mu zazdravejat(P) ranite. Posle mu pomognaxa(P,A) da prex-vârli(P) srâbskata granica.
'They let him lie in his hut, until his wounds had been healed <present tense>. Then they helped him to get across the border to Serbia.'
(E. Manov, quoted in Maslov 1959: 228)

(82) Dokato otminem(P) ot Panagjurište, nie malčexme(I,I).
'Until we had passed <present tense> Panagjurište, we kept silent.'
(Z. Stojanov, quoted in Dejanova 1976b: 318)

It is indicative of this difference of vantage points that Dejanova (1966: 40) gives the aorist otminaxme(P,A), not the imperfect otminexme(P,I), as a possible alternative of the present tense in (82).
2.5 Types of Presentness

2.5.1: Continuous vs. habitual; contingent vs. characterizing. The topic of this section is the nature of time reference in those tenses whose formulae contain the "simul" (or "=") element, i.e., the present, the imperfect, and one interpretation of the future. The present tense is the prototype whose past and future projections the other two tenses are. There is a great deal of terminological confusion in the field; "generic time reference", for instance, has several definitions. Moreover, the different classifications proposed so far cannot be considered to be mere terminological variants, as the very criteria the classifications are based on vary. The following discussion has no pretensions to completeness, for the problems dealt with are not characteristic of Bulgarian or the Slavic languages only, but must be studied more thoroughly in general linguistics.

A distinction is often made between what are called the "actual" and "non-actual" present (see e.g. Isačenko 1962: 282-283). These designations derive from the "continental" meaning of "actual" ('current', 'topical') and are consequently not very felicitous in English. The "actual present" tells what is happening right now; the "non-actual present" expresses what happens regularly (but may not be going on at this very moment). With a non-stative verb, this distinction often coincides between the difference between the progressive and simple present tense form in English, whereas in Slavic there are usually no grammaticalized means for distinguishing between the two interpretations:

(83) Tja jade(I) jabčki.
   a. 'She is eating apples.' (actual)
   b. 'She eats apples.' (non-actual)
Of course the context (linguistic and situational) normally disambiguates the utterance. Notice that the same two readings are found also in the imperfect:

(84) Tja jadeše(I,I) jabálki.
    a. 'She was eating apples.'
    b. 'She used to eat apples.'

(Here the English used to construction is clearer than the simple past ate, which can also denote a complete event, corresponding then to the Bulgarian aorist.)

Stankov (1966, 1969) calls the "actual" and "non-actual" present konkretno segašno vreme 'concrete present' and obobšte-
no segašno vreme 'generalized present', respectively. In what follows I will, however, use the terms continuous and habitual present. "Continuous" and "habitual" are usually employed as aspectological terms, designating interpretations of the imperfective (as in Comrie 1976), but in the course of this study it will become clear that there is no absolute distinction between the semantics of tense and aspect.

In the West and East Slavic languages there are imperfective verbs which have been derived directly from primary imperfectives and which only have the habitual meaning (often called "iterative"). In Russian this type is rather marginal (Forsyth 1970: 168-171), but it is a living category in Czech, forming a kind of third aspect. Kučera (1981: 180) gives the following examples of the ungrammaticality of their continuous use:

(85a) *Zrovna teď mi psává dopis.
     'Right now (s)he writes me a letter.'

(85b) *Když jsem vešel do pokoj, Petr hrával na klavír.
     'When I entered the room, Peter used to play the piano.'

Sentence (85b) shows that a habitual verb also blocks the use of the Inzidenzschema.

Not all instances of the non-continuous present are necessarily habitual. We must allow for a separate potential
meaning, which is primarily modal and will be discussed in 4.2. The praesens historicum is categorized as non-continuous, too (see 2.5.2).

Another distinction of general linguistic importance is that between contingent and characterizing present. The contingent present tense denotes accidental situations. The characterizing present denotes situations that can be assigned as essential properties to some of their participants, usually the agents (expressed with the subjects); they answer the question "what is she / he / it like?". The continuous present is always contingent; the habitual may be so, as in the following example:

(86) Vsjaka sutrin sâm(I) svidetel na čudni drami i komedii. I oštete ne moga(I) da razbera(P) koj počva(I) prav. Sutrin oštete spja(I) i eto če čuvam(I) užasen vik ...

'Every morning I become the witness of strange dramas and comedies. And I can't understand yet which of them starts it. It's morning, I'm still asleep, and suddenly I hear a terrible scream ...'

(Elin Pelin, quoted in Stankov 1969: 13)

But often the habitual present characterizes the subject, as in sentence (87):

(87) ... toj e(I) ergen. Toj živee(I) sâm, ljaga(I) sam, stava(I) sam, pie(I) s kompanija, no se napiva(I) sam, stradae(I) sam i sam se utešava(I).

'He is a bachelor. He lives alone, goes to bed alone, wakes up alone, drinks in company, but gets drunk alone, suffers alone, and is his own comforter.'

(Elin Pelin, quoted in Stankov 1969: 14)

The imperfect can have a characterizing interpretation as well:

(88) Toj imâše(I,I) blag, đobrodušen karakter i umeeše(I,I) da govori(I) mädro ...
'He had a sweet and kind character and could speak wisely.'
(Elin Pelin, quoted in Stankov 1966: 57)

The position of generic sentences, and even their definition, is unclear. According to Spears (1974: 173), generic sentences are logically "tenseless" and contain a generic subject; he explicitly distinguish them from habituals. Bulygina's (1980: 344-345) position is similar. According to Lyons (1977: 680), generic propositions, such as Cows are herbivorous, "are not merely omnitemporal, but timeless". Dahl (1975) argues that generic sentences do have reference to the past, present, or future. Several of his examples contain a non-generic subject, e.g. John smokes cigars. According to Dahl, generic sentences always express nomic (law-like) statements, but he does not clearly distinguish them from habituals. Mønnesland (1984: 56-57) equates generic and characterizing sentences, but does not count them as habituals. I will not pursue the question here.

The difference between the continuous and habitual present (or imperfect, or future) is to a certain extent blurred by the existence of statives, i.e. verbs denoting states. There are classificational difficulties with them. Isačenko (1962: 283) considers the Russian ljubit' (I) 'to love' a verb that can only be used in the "non-actual" present; according to Bulygina (1982: 43, 54; cf. 1980: 345) it is even necessarily characterizing. In the same vein, the Bulgarian običam(I) 'id.' is considered by Stankov (1969: 12-13) to be always used in the "generalized", i.e. habitual, tenses. But Maslov (1981: 245) includes the sentence običam(I) te, moe milo otečestvo 'I love you, my dear native land' in the "concrete" (=continuous) present. Consider this important sentence:

(89) Az te običam(I).
'I love you.'

Now, this certainly does not count as a characterizing sentence in its primary reading; it does not (openly) purport to tell "what kind of person I am." But if it is contingent, is it
habitual or continuous? Mainly continuous, I would say, because my love must be "in force" just now for the sentence to be true, and hence Maslov's classification is correct. Notice, however, that (89) is not usually in opposition to any habitual sentence, expressions like "I love you from time to time" being rather exceptional (though certainly applicable, to be sure). And what is more, (89) could have a characterizing meaning, too; cf. tja običa životnite 'she is fond of animals', which might well be used to characterize "her" kind nature. On the other hand, the characterizing meaning should only be typical of habituals. It seems that although sentences denoting states are continuous, they can sometimes share some properties of habituals.

The primary distinction with respect to states is perhaps not between the continuous and habitual presentness, but between the contingent and characterizing. In various languages there are grammaticalized means for marking this distinction in ascriptive structures. Sometimes the Russian distinction between long and short adjectives is used for this purpose: Ivan bol'nøj 'Ivan is a sick man' (characterizing) vs. Ivan bolen 'Ivan is ill' (contingent). In Spanish (and Portuguese) the same distinction is made in the copula: Juan es enfermo vs. Juan está enfermo. In Russian the distinction can also be marked with the nominative / instrumental distinction in the predicative, or occasionally with lexical means, as in molčalivýj 'taciturn', bezmolvnýj 'silent (on a particular occasion)'. (For these matters, see Bulygina 1982; Vendler 1967: 108-109; Comrie 1976: 103ff.; Lyons 1977: 717; Givón 1979: 322-323.)

Comrie (1976: 27) and Mønnesland (1984: 58-59) are of the opinion that the continuous / habitual distinction is also relevant when static situations are concerned. Their arguments are based on English and North Slavic sentences that are marked as habitual, though the verbs are stative. A good example is the Czech sentence (90a) from Kučera (1981: 183) and its English translation (90b):

(90a) V mládí jsem ji míval rád.
(90b) In my youth I used to like her.
Notice first that these sentences obviously do not mean that my liking ceased and began again several times. The function of the habitual markers seems rather be to emphasize the remote-ness of the state of liking. As Kučera (ibid.) remarks, it is not possible to say in Czech

(91) *Až do včerejška jsem ji měval rád.
    'Until yesterday, I used to like her.'

A non-habitual imperfective must be used instead:

(91') Až do včerejška jsem ji měl rád.
    'Until yesterday, I liked her.'

This certainly has to do with time reference, but not along the continuous / habitual dimension. If the verb is stative, what is formally a habitual form assumes the function of a "remote past". This is because habits are characteristically not bounded by external temporal limits, such as in (91) and (91'). When they cease, they exhaust themselves and expire by themselves (cf. *I used to live in Chester for three years). But this is a secondary use of what is formally a continuous / habitual distinction, and I do not find Mønnesland's term "stative habitual" felicitous for describing the semantics of cases like (90a).

The above discussion is more relevant to general Slavic aspectology than to the Bulgarian verb system, because there is only one verb in Modern Bulgarian that contains an iterative suffix added to an imperfective root, viz. bivam(I) 'to be', mentioned in 1.5.2. (The root bi- only appears in the past participle active of sām, so the relation between sām and bivam must be considered suppletive.) Bivam can have a habitual interpretation:

(92) Belite kone ne se raždat(I) beli, a otnačalo bivat(I) si-vi i pobeljavat(I), kogato poostarejat(I).
    'White horses are not born white, but are <usually> first
grey and yet white as they grow a little older.'
(Jordan Jovkov, quoted in Maslov 1981: 261)

Sentence (92) we could really call a "stative habitual", or rather "habitual stative", because there are several distinct occasions on which a grey foal is born. This interpretation is made possible by the generic subject belite kone (note that in (90) the subject was not generic). Another sentence type that might qualify as "habitual stative" is exemplified by sutrin se namiram(I) v kāšti 'in the morning I am <usually> at home', to be discussed in 3.2.5 below.

Since the historical present is categorized together with the habitual present (see 2.5.3), it is possible to have the present tense of bivam as a passive auxiliary even when only one occasion is referred to (cf. Maslov 1981: 270):

(93) Zavǎršil(P) universitetskij kurs, v 1819 g. Mickevič bi-
va naznačen(P) za učitel v grad Kovno.
'In 1819, having completed his course in university, Mickiewicz was <"is"> appointed a teacher in the city of Kaunas.'
(Emil Georgiev)

This construction is more bookish than e naznačen would be, but it is frequently found when the narrative is in the historical present.

2.5.2: Transpositions of the present tense. Transpositions of the present tense are those of its uses in which the situation referred to is not simultaneous with the moment of speech, and the present tense is employed because some of its associated meaning components have replaced the defining components (cf. 1.2.1).

We must first mention the præsens historicum, historical present, in which the present tense is substituted for the preterite (aorist and imperfect). More generally, each <+PAST> tense is replaced by its <-PAST> counterpart: the perfect is
used instead of the pluperfect, and the future replaces the past future (provided the latter does not have a modal interpretation).

The use of the historical present is an established narrative strategy (Stankov 1969: 36-47; Mutafčiev 1976). Benveniste's (1966: 245) remark that it "n'est qu'un artifice de style" does not hold true in Bulgarian, in which even an ordinary joke can be told by using it. The importance of the historical present is enhanced by the fact that the present, in contrast with the preterite, is neutral as to evidential modality (see section 4.3; cf. Aronson 1967: 88-89 and Ivančev 1976a: 159). The historical present is used, for instance, in biographies of outstanding persons: the indicative preterite cannot be used unless the narrator has been a contemporary of the person in question, and the reported preterite (or inferential perfect) would obviously endanger the impression of objectivity such a biography must give, so the historical present is a suitable alternative. It cannot, however, be used in a curriculum vitae (Bulg. služebna autobiografiya) because it would be immodest (Stankov 1969: 47; Gramatika 1983: 299), exaggerating the historic significance of one's life. There is of course no hindrance for using the indicative preterite in a curriculum vitae. As for jokes, I have heard the same person tell the same joke once in the reported preterite, once in the historical present:

(94a) NN umrjal(P,A) i vljazal(P,A) v raja. Sled deset godini toj iskal(I,I) ...
(94b) NN umira(I) i vliza(I) v raja. Sled deset godini toj iska(I) ...

'NN died and entered the Paradise. After ten years he wanted ...'

As this example shows, perfective verbs are usually changed into imperfective when the praesens historicum is used (see 3.2.4 for a more detailed account).

A rare mirror image of the historical present is the so-called praesens propheticum (Maslov 1959: 248-249), as in (95):
(95) Znaeš(I) li kak si predstavjam(I) našija badešt život?
... Ti stavaš(I) mnogo bogat i znamenit. Kupuvame(I) si nije edna prekrasna vila u Banki ili u Knjaževo. Obzaveždame(I) si tam xubava gradinka.
'Do you know what I imagine our future life to be like? You become very rich and famous. We buy a beautiful villa in Banki or in Knjaževo. There we set up a nice little garden.'
(K. Zidarov, quoted in Stankov 1969: 51)

From the praesens proheticum we must distinguish the praesens pro futuro, i.e. the present tense used to express future events (usually acts) that are considered certain, that are scheduled to happen (Maslov 1959: 249; Stankov 1969: 52-58; Englund Dimitrova, forthcoming):

(96) Utre zaminavam(I) za Ćužbina.
'I am leaving for abroad tomorrow.'
(Stojanov 1977: 358)

(97) Az ošte utre napuskam(I) rabotata i njama veče da stoja(I) vav vašata kasha.
'I'm leaving my work tomorrow and I won't stay in your house any longer.'
(D. Kistov, quoted in Stankov 1969: 53)

In this use the verb is always imperfective, most often a secondary one (Englund Dimitrova, forthcoming). It is usually but not necessarily a verb of motion, and it must probably always be agentive (cf. Bulygina 1980: 341 and 1982: 80, for Russian). There exists a parallel use of the imperfective imperfect:

(98) Edin ot tjax slobštavaše(I,II) na eksperta, ce dva voenni kamiona zaminavat(I) sled polovin čas. Drug ešel on ot motorni koli travgvaše(I,II) v šest časa sutriza.
'One of them told the expert that two military trucks were leaving after half an hour. Another motorized convoy
was leaving at six o'clock next morning.'
(Dimităr Dimov)

zaminavat is still a present tense ('are leaving') because consecutio temporum is optional (see 2.2.5), but trăgvaše 'was leaving' is an imperfective imperfect. Galton (1976: 65-66) calls this use, of the imperfective preterite "delayed past" and does not connect it to the "prospective present", as he calls the praesens pro futuro. But obviously we are again dealing with the parallelism of the present and imperfect, and Galton's description must be considered atomistic.

Stankov (1969: 107-108, 1981: 49) connects this use of the present tense with its capability of expressing modality, specifically "willingness". He admits that some verbs, such as zaminavam(I) 'to leave (for somewhere)', are so often used in a present tense referring to the future that the modal meaning "fades".

In Russian, where there are only three tenses, the expression of scheduled events must be ascribed to the imperfective aspect rather than to some tense forms (cf. Forsyth 1970: 73, 149-150). But as I attempt to show in 2.6, the meaning of the imperfective, on the one side, and the meanings of the present and imperfect, on the other side, are not so distinct as they are traditionally thought to be. The "modality" of the praesens pro futuro can in fact be linked with the conative imperfective, to be discussed in section 3.3.2.

2.5.3: Introducing napisvam. As noted in subsections 1.4.2 and 1.5.2 of the Introduction, in Bulgarian it is possible to derive a secondary imperfective even from those perfectives which form an aspectual pair with the primary imperfective.\(^49\) The standard example is piša(I) → napiša(P) → napisvam(I) 'to write', and we will refer to this kind of secondary imperfectives as "the napisvam type". Notice that prepisvam(I), for instance, does not belong to this type because prepisiša(P) 'to copy' does not form an aspectual pair with piša(I).

Verbs of this kind cannot be used in the continuous
present or continuous imperfect:

(99) *Pročitam(I) tazi kniga v momenta.
    'I am reading this book just now'
(100) *Napisvam(I) pismoto v momenta.
    'I am writing the letter just now.'
    (Stankov 1966: 29 footnote 76)

They are normally used in the habitual present and imperfect, and also in the historical present (Ivančev 1971, 1976a). Birgitta Englund Dimitrova (forthcoming) has recently pointed out that they can also be used in the praesens pro futuro, provided that the immediate future is referred to:

(101a) Ej sega izpiram(I) drexite.
    'I'll wash the clothes in a minute.'

(101b) ?Sled malko izpiram(I) drexite.
    'I'll wash the clothes in a while.'

(101c) *Sled edna sedmica izpiram(I) drexite.
    'I'll wash the clothes in a week.'

When there are several such imperfectives, denoting a chain of events, they can refer even to a more distant future (op.cit.).

Napisvam-type verbs are often called "temporally defective". This refers, first, to the fact that they are not used in the continuous present and imperfect and, second, to their limited use in some other tenses. It is not entirely clear yet in which tenses these verbs really can be used -- for these matters, see Hult (1981) and Thelin (1982), with references to discussion between Svetomir Ivančev and Valentin Stankov. At any rate it seems that in those tenses in which they can be used they are interpreted as habituals. Notable exceptions are the historical present, which Bulgarian obviously categorizes as non-continuous and therefore groups together with the habitual (cf. the discussion of bivam(I) in 2.5.1), and the praesens pro futuro exemplified by (101a) above.
Hult (1981: 157) compares napisvam verbs to Czech habitu-
als, but a different description will be given in 3.2.4 in
terms of what I call aspectual nesting. It should be pointed
out that there are other verbs, too, that do not have the
continuous interpretation but nevertheless do not belong to the
napisvam type as regards their morphological derivation. A good
example is namiram(I) 'to find' (excluding its abstract meaning
'to regard as'): it only has the habitual interpretation,
though there is (synchronically) no primary imperfective corre-
sponding to namerja(P). 50

Thelin (1982) tries to integrate the napisvam type into
his semantic aspect model by assuming that the habitual inter-
pretation is "only a specific case of the postulated here
feature -TIME, always realized through imperfective verb forms"
(my translation). But since his model -- as presented in that
article and elsewhere -- presupposes that the distinction +/-
total is only relevant if +TIME has been chosen, his solution
actually blocks the most obvious semantic description of napis-
vam in terms of his features, viz. +TOT, +ITER (i.e., iteration
of events that are each conceived of as total). And what is
more, there is nothing in his previous treatment of the feature
time that would suggest that -TIME could mean "habituality"
(cf. 1.4.3). In Thelin (1978: 30) this feature is used to
describe what Forsyth (1970) has called the "simple denotation"
interpretation of the imperfective aspect, e.g. čeli(I) li ste
knigata? 'have you read the book?' (cf. 3.3.2). I do not see
how this could be connected to habituality.

2.6 Tense, Aspect, and Temporal Reference

So far, the discussion in this chapter has mainly centered upon
tense. Only in the case of embedded clauses (2.4) was it point-
ed out that aspect is used to express temporal relations, too.
In subsection 2.5.1 the two main interpretations of the present
tense were designated with the terms "continuous" and "habit-
ual", which in aspectology (e.g. in Comrie 1976) are used to denote interpretations of the imperfective aspect; but no justification was given for this borrowing then. The reader has perhaps been led to presume that I regard tense and aspect as strictly distinct phenomena and, in particular, that the opposition between the aorist and the imperfect is considered in this study to be temporal, despite the strong opposition to that view. So it may now seem inconsistent to declare that aspect is intimately connected with time reference, and that the aorist/imperfect opposition is aspectual, after all. But that is exactly what I intend to maintain.

Aspect operates simultaneously on two semantic domains: the domain of time reference and that of situation classes (the latter will be discussed in Ch. 3). Lehmann (1978) has proposed a theory whereby the Russian aspects have both a temporal and "actional" side of meaning (Bedeutungsseite) each; in particular, the perfective preterite has temporal interpretations (Einzelbedeutungen) that are equivalent to the perfect, pluperfect, aorist, and "second future" (= future perfect). It is methodologically questionable to describe an aspect system through the prism of the more developed tense systems of other languages, to be sure; but the domain of temporal reference does contain a part on which aspect and tense have both to be taken into account (cf. Bondarko 1967: 27).

Aspectologists often admit that "the meaning of tense and the meaning of aspect are very closely intertwined" (Stankov 1969: 11, my transl.), but it has not been clear what the interconnections are like and how they ought to be described. I propose that boundedness should be considered the key notion. As predel'nost', it has long figured in Slavic aspectology (see 1.3.2), and it seems to be essential for understanding Finnish aspect as well (Leino 1982; Heinämäki 1984). Lehmann (1978: 139) considers Begrenzung 'limitation' to be the notion that connects "aktionale Bedeutungen" and "deiktische Beziehungen"; the former are limited "from within", the latter "from without".

It is a property of certain types of situations that they are bounded, i.e. that reference to them necessarily includes
their end point. The perfective aspect denotes such situations -- this belongs to the denotative side of aspect meanings. On the other hand, if in time reference the point of reference R coincides with the point of the situation E, the situation is viewed "from within" (not in Lehmann's sense but in the sense introduced in 2.2.2) and the end point is not included in the denotation of the sentence. I propose that the following correspondences hold between time reference and boundedness:

(i) If R coincides with E (or, in the other notation, if the formula ends in "...=(v V_A", where v is any variable), the situation is non-bounded.

(ii) If there is an R but it does not coincide with E (the formula ends in "...<<v V_A" or "...>>v V_A"), the situation can be bounded or non-bounded.

(iii) If there is no R (the v of V_A is bound directly by PAST, FUT, or possibly PRES), the situation is bounded.

These correspondences suggest that there should be certain kinds of interactions between the tense forms and "Slavic aspect", i.e. the opposition between the perfective and imperfective. From (i) it should ensue that the present and the imperfect can only be used in the imperfective aspect. While this is true for most contexts, there are syntactic positions in which perfective presents and imperfects are quite normal, so further clarification is needed. Likewise, (ii) seems to mean that only perfective verbs can have aorists, but this is no more true; imperfective aorists are in fact not even subject to special syntactic limitations. From (ii) we can deduce that the perfect and pluperfect can be used in both aspects; this is indeed true, but hardly a remarkable result.

The existence of an imperfective aorist and perfective imperfect has indeed been considered to be evidence against treating the opposition between the aorist and imperfect as
aspectual. In the native Bulgarian grammatical tradition, the **temporal theory** (sometimes called "chronological") prevails: the aorist and imperfect are two distinct tenses, whose time reference properties have nothing to do with the perfective / imperfective distinction. The **aspectual theory** is defended by Svetomir Ivančev, whose important monograph on Slavic aspectuality (1971) is largely neglected or misunderstood, and, outside Bulgaria, by the Leningrad Bulgarist Jurij Sergeevič Maslov (1959).\(^\text{53}\)

The main piece of evidence in favor of the aspectual theory is the fact that in narrative, the Bulgarian perfective aorist and imperfective imperfect function precisely as, say, the Russian perfective preterite and imperfective preterite, respectively, do — except for the fact that since the preterite is the only past tense in Russian, it also has to cover meanings for which there exist a perfect and pluperfect tense in Bulgarian (Maslov 1980: 51, 53). In the perfective aorist, the features "perfective" and "aorist" cannot be assigned distinct meanings, or, more precisely, the aorist means "bounded preterite" and the perfective does not mean anything over and above that, but rather less than that.\(^\text{54}\):

![Diagram of tense categories]

It is an artifact of description to say, as Stankov (1980: 62) does, that in the perfective aorist the perfective expresses "totality, singularity, and concludedness" ("cjalostnost, ediničnost i prikijučenost"), while the aorist is supposed to mean "terminativity" ("prekrašetnost"). Totality and "concludedness" can hardly be considered to be properties independent of terminativity (and boundedness). Galton's (1976) attempt to distinguish between the two oppositions aorist / imperfect and per-
fective / imperfective is not convincing, either. He considers them to be distinct even in Sorbian, which simply does not make sense because in this language aorists are always perfective and imperfects imperfective.\textsuperscript{55}

In the perfective aorist and imperfective imperfect the meanings of the morphosyntactic features coalesce; in the imperfective aorist and perfective imperfect the meanings do not contradict but add to each other so as to form a more complex aspactual meaning, as will be shown in section 3.2. Hence the opposition between the aorist and imperfect is aspactual, though this difference in aspactuality necessarily means difference in temporal reference, too. Strictly speaking, the aorist and imperfect are "tenses" only in the sense that they together form the preterite tense, which is opposed to all other tenses of the language.

It is instructive to compare the preterite with the future. Here are two instances of the Inzidenzschema:

(102a) Včera, kogato tja izlizaše(I,I) ot stajata, sreština(P,A) edin poznat.
'Yesterday, when she was leaving the room, she met a friend.'

(102b) Utre, kogato tja izliza(I) ot stajata, šte sreštne(P) edin poznat.
'Tomorrow, when she is leaving the room, she will meet a friend.'

The same distinction that is made in the past by distinguishing between the imperfective and perfective, on the one hand, and between the imperfect and perfect, on the other, is made in the future\textsuperscript{56} by means of the mere imperfective / perfective distinction -- but no semantic content is lost. Consider further the following future story constructed by Stankov (1969: 132):

(103) Znaeš(I) li kak si predstavjavam(I) tjaxnuto posreštane? Te šte izlazat(P) ot samoleta, naokolo šte sa se strupali (P) mnogo xora i šte razmaxvat(I) cvetja. Te šte sljazat
(P) po stálbičkata i šte pregārnat(P) svoite blizki.
'Do you know what I imagine their reception to be like? They will come out of the plane, lots of people will have crowded round and they < = the people> will be waving flowers. They < = those coming from the plane> will come down the stairs and embrace their friends and relatives.'

If this story were told in past tenses, the future perfect šte sa se strupali(P) 'will have crowded' would obviously appear as a pluperfect. The perfective futures would be perfective aorists, the imperfective future šte razmaxvat(I) 'will be waving' corresponds to an imperfective imperfect. Hence, the different interpretations of the future are partly distinguished through aspect choice: E after S must be perfective, and E simul R after S must be imperfective. Since E after R simul S, the mirror image of the perfect, can be either perfective or imperfective, the aspect does not always suffice for determining the interpretation, and the listener must resort to contextual information. At any rate, each individual future form can only have two possible interpretations and not three.

We have called the common semantic content of the aorist and perfective boundedness. In the same way, the imperfect and imperfective share the property of non-boundedness. Now, the parallelism between the present tense and the imperfect means that the property of non-boundedness is also shared by the present tense, at least when it is actually used to describe the present state of affairs. On the other hand, there is no tense which would be a present counterpart of the aorist; boundedness and present time reference seem to be incompatible. There are perfective present forms in Bulgarian, to be sure, but they are used either in subordinate sentences where they actually refer to the future (see 2.4.1 above), or else they can be explained as perfective imperfects are (see 3.2.4). The situation is similar in all languages that possess aspect. It seems that in natural language, present time reference is inherently imperfective, i.e., the deictic element "now" implies the semantic feature "non-bounded".

This means that defining the imperfect as the "present in
the past" (cf. 2.2.2) does not contradict the aspectual theory of the aorist and imperfect. As the imperfect obviously cannot contain the feature "now", it can only contain the other feature of the present, namely "non-bounded" -- hence, "present in the past" and "non-bounded past" are one and the same thing.57

I am aware that present time reference and perfectivity do not seem in all languages to be so incompatible as they do in Bulgarian. Dahl (1984: 6) points out that in a number of languages, the reportive present and performatives can be perfective.58 Assuming that the English simple (non-progressive) forms count as perfective when they are not stative nor denote habituality, this point can be illustrated with English sentences (Kučera 1981: 185): Hedda enters from the left (stage directions, the so-called præsens scenicum); The candidates remain seated (ritual instructions); Lance resigns (newspaper headlines); Smith passes to Jones (play-by-play accounts); Now we take the rabbit out of the hat (demonstrations). I take all these to be instances of the reportive present. To these we may add the description of plots of books or motion pictures: I've just seen a movie in which someone steals the crown jewels (McCawley 1971: 113, footnote 13; cf. Weinrich 1964: 52-53 and Galton 1976: 30-31). But this use could perhaps be included in the historical present.

In Slavic languages, the reportive present can generally be only imperfective. The præsens scenicum can be perfective, though, in Czech, Slovak, and Serbo-Croatian (Galton 1976: 18) -- all languages in which the perfective is also possible in the præsens historicum. The case of "newspaper headlines" is peculiar to English, in which it is customary to only use the present tense in headlines. Play-by-play accounts are imperfective in Bulgarian59:

(104) Iliev poema(I) topkata i ja podava(I) na Asparuxov ...
'Iliev takes the ball and passes it to Asparuxov.'
(Stankov 1969: 20)

And so are plot descriptions:
(105) Pridvornite mu razkazvat(I) za otvličaneto na ljubovnicata na šuta i toj se dosešta(I), če tova e sreštnatata(P) ot nego v cirkvata devojka. Uznal(P), če tja e(I) tuk, xerçogat bârza(I) da otide(P) pri neja.
'The courtiers tell him about the abduction of the jest-
er's mistress, and he guesses that it is the girl he met in church. Having learned that she is here, the duke hurries to meet her.'
(from a program of Rigoletto)

As for performatives, in Slavic they are usually imper-
flective, but the perfective is sometimes possible, too (Koschmieder 1934: 37; Šeljakin 1979b 15). A special class of performatives whose function Leinonen (1982: 248ff.) calls "discourse management" are perfective more commonly. She gives the following Russian example, borrowed from Šeljakin:

(106) Œtoj mysl'ju my i zakončim(P) našu stat'ju.
'With this thought we end our article.'

The common property of the performative and reportive present is that the point of speech is simultaneous with all of the points of the event. In performatives this is guaranteed by the fact that the verb does not refer to anything but the speech act itself. In reportive present the point of speech is floating along with the events, which are reported at the speed they occur (though this is of course only illusory in written instructions and the like). The events must be such that they can be anticipated at least a little before they take place; Langacker (1982: 290) points out the oddity of The scoreboard goes up in flames! in a play-by-play account (cf. also Gold-
smith & Woiwetschlaeger 1982: 87). So, in the reportive and performative present we are dealing with a special type of time reference, which creates a true possibility of combining pres-
entness and perfectivity; but this possibility is only occasion-
ally realized grammatically in Slavic languages. I propose the following universal:
Present time reference is inherently non-bounded (imperfective) in all languages, except when the point of speech moves along an anticipated series of events.

In performatives the "series" only consists of one event, but the event (an illocutionary act) is fully anticipated because it is bound to occur if an utterance referring to it occurs, and the felicity conditions are fulfilled.

It is tempting to describe the reportive present as PRESx #A -- i.e. E simul S, the present counterpart of the aorist. But the problem is that there seems to be a "reportive imperfect", too:

(107) Navjarno v tozi moment toj vlizaše(I,I) veče v grada. Struvaše(I,I) i se, če go vižda(I). Toj razkazvaše(I,I) slučkata na Lavin; bleden ot válnenie, Lavin zvâneše(I,I) na prisluznicata ...
'Probably at that moment he already entered the town. She felt as if she saw him. He told L. about the incident; white with rage, L. rang for the maid ...'
(Stankov 1969: 9760)

Here it is of course R that is floating along with the events, instead of being fixed by the context as in normal imperfects. The appearance of this kind of imperfective imperfects is obviously connected with the fact that Bulgarian does not use perffective presents even in the reportive function. Hence it must be concluded that the E simul S analysis of the reportive present is only valid in languages in which such presents are perfective. The Bulgarian present is always E simul R simul S, but R is allowed to float with E both in the present and the imperfect. The languages which possess the E simul S option can make a distinction in the present Bulgarian cannot, but the past counterpart of this option merges with the normal aorist (E before S; cf. the English translations above) as R is not allowed to float in this way.

There are languages, such as Hausa (Kraft & Kirk-Greene 1973; Smirnova 1982), in which only aspect, not tense, is a
grammatical category. If the context does not contain other
time specifications, the imperfective is understood to refer to
the present, the perfective to the past. The original Indo-
European verbal system may have been very similar, contrasting
the imperfective "present stem" with the perfective "aorist
stem" (Comrie 1976: 83-84). All this shows the close connection
between the semantic features "presentness" and "non-bounded-
ness". Even in Bulgarian there are cases in which formal aspect
distinctions are used to express mere time relations. The
passive participle is usually called a "past" participle, but
in fact it can refer to the present if it is imperfective
(Maslov 1959: 288-289; Georgieva 1976; Stojanov 1977: 417;
Andrejčin & Popov & Stojanov 1977: 287, where the example is
taken from):

(108) Oblacite otminavat(I), goneni(I) ot vjatāra.
    'The clouds pass away, chased by the wind.'

As in all participles, the time reference is in fact not abso-
lute but relative (E simul R); the participle goneni would not
change if the verb of the main clause were converted into the
imperfect or future. The interesting thing is that the temporal
value of the passive participle (E simul R vs. E before R) is
determined by the aspect alone. This is the case in several
other Slavic languages, too, as only Russian has preserved the
old present participle passive (Galton 1976: 275ff.61).

The conclusions of this section are, first, that time
reference involves not only tense but also aspect and, second,
that the present seems to be a common point d'appui for both of
these categories. I will take up these ideas in 3.1.5 after we
have learned more about the denotative properties of aspect.
3 DENOTATIVE PROPERTIES OF ASPECT

3.1 Situation Classes

3.1.1: Introductory remarks. In this section, a denotative aspect theory will be outlined: we will search for extralinguistic denotata of aspect grammemes and of other linguistic items expressing aspectuality. The concept of denotative description was defined in subsection 1.2.2. The following quotations give guidelines to this approach: "The roots of grammar lie in semantics, which is in turn a direct reflection (in fact is probably not distinct from) a cognitive map of reality" (DeLancey 1982: 180); "jazykoznanie -- eto nauka, kotoraja izuchayet ne tol'ko jazyk, no i otrazayemye v jazyke aspekty myshlenija" (Bondarko 1983b: 63).

In accordance with the preliminary definitions given in 1.4.6, aspectuality is here defined as a semantic domain consisting of distinctions between different situation classes. Aspect is a grammatical category expressing aspectuality. The two notions are interdependent: aspectuality contains the distinctions that can be grammaticalized in language, and grammaticalized aspect categories of various languages show which distinctions must be considered fundamental in aspectuality. This is consistent with the research strategy proposed by Bondarko (1983b: 33ff.): we must first seek the semantic basis of a grammatical category, and then we can consider what other means of expressions are used to denote similar meaning distinctions.

A situation is anything a sentence (i.e. a system-sentence in the sense of Lyons 1977: 29) denotes, or an utterance (or text-sentence) refers to. There are both situation types
and situation tokens: the sentence she's coming denotes a particular type of situation, whose instantiations are referred to by uttering this sentence. Notice the distinction between situation type and situation class: there are roughly as many situation types as there are sentences (or even as many as there are utterance types), but those situation types belong to a much smaller number of situation classes. The situation type denoted by she's coming, for instance, belongs to the situation class "processes", and to its subclass "activities" (as defined below). Instead of "situation type" I will often speak of "situation" for short.

It is perhaps not entirely correct to say that a sentence denotes a situation. Plain situations are rather denoted by certain nominal phrases, such as her coming; the sentence she's coming expresses the fact that such a situation obtains or takes place (cf. Vendler 1967: 122-146). Alternatively, one could say that a sentence expresses a proposition (Miller & Johnson-Laird 1976: 591ff.; Lyons 1977: 443ff.). Facts, or propositions, certainly exist in some sense because they can be referred to (Lyons 1977: 445); but whereas situations are what Lyons calls second-order entities, located in time, propositions are third-order entities, which do not exist in space or time. So, we can conclude either that a sentence does not denote a fact but merely states or expresses it, or that by denoting a fact a sentence derivatively denotes a corresponding situation. Here, at any rate, we can continue to speak of sentences denoting situations.

The abstract nature of these introductory remarks should have made it clear that, in this section and in the whole chapter, Bulgarian aspect will not be treated as an isolated phenomenon -- it will be approached from the vantage point granted by a general denotative theory of aspectuality. But it will also turn out that Bulgarian material is very suitable for clarifying some complex issues in general and Slavic aspectology. This is primarily because Bulgarian possesses two partly independent aspect oppositions, viz. perfective / imperfective and aorist / imperfect. Later on we will also discuss the
relation between aspect and the perfect tense (see especially 3.3.2).

3.1.2: Events, processes, and states. Most modern classifications of situations are based, in one way or another, on Zeno Vendler's important article "Verbs and times", published in 1957 and later included in Vendler (1967). Vendler distinguished four different "time schemata" presupposed by verbs. English verbs, or verb + object combinations, that can be used in the progressive aspect denote either activities, such as running, or accomplishments, such as drawing a circle. Activity verbs take adverbials of the type "for one hour" (she ran for one hour), whereas accomplishment verbs typically take adverbials of the "in"-type (she drew a circle in one hour). Verbs lacking progressive forms denote either durative states, such as knowing or loving, or momentary achievements, such as starting, or reaching the summit.

Vendler did not connect his classification to the tradition of aspectology; its first application to the study of aspectuality is due to Dowty (1972: 16-27). It is not entirely clear what Vendler was actually classifying. On the one hand, the four "time schemata" obviously represent different kinds of denotata; on the other hand, the classification itself is primarily applied to verbs. But then there is no reason why the same classification could not be applied to even larger denoting expressions -- such as verb phrases and sentences. Vendler seems to have been partly aware of this, for he often gives examples that consist of a verb and its direct object. Although running and singing are activites, running a mile and singing a song are accomplishments. Vlach (1981: 272-273) interprets this so that Vendler was actually classifying verb phrases, and proposes to apply the classification to whole sentences. What he has in mind are tenseless (and aspectless) verb phrases and sentences, because the original idea is of course that she sang a song, she was singing a song, she sings a song, etc., all denote an accomplishment. The possibility of using the progressive is one criterion of an accomplishment verb -- the progres-
sive does not make the accomplishment into something else.

Now, in one sense it is perfectly reasonable to say that she was singing a song (but not she sang a song) denotes an activity, not an accomplishment. Two different classifications emerge from Vendler's original conception. We can classify either situations and, concomitantly, sentences that denote them, or, on the other hand, verb lexemes according to their contribution to the overall aspeccual value of the sentence -- especially according to their interaction with aspects (such as the English progressive) and time adverbials. As noted by Mourelatos (1981: 199), among others, the verb's inherent meaning is only one of the several factors determining what kind of situation the sentence denotes. Since it certainly is an important factor, we will return to it in 3.1.3 below; here we shall discuss the overall classification of situations and its relation to verbal aspect.

Various schemes of classification have been proposed for situations, e.g. in E. Andersson (1977), Lyons (1977: 483), Dik (1978: 32ff.), Carlson (1981), and Langacker (1982). I shall make use of Mourelatos' (1981) and Bulygina's (1982) classifications. Although they have been developed independently, they resemble each other to a considerable degree. It is encouraging to see that the other classifications mentioned are not very different, either; the divergences are largely (though not exclusively) terminological.

Mourelatos and Bulygina both classify situations (Bulygina uses the term "state of affairs", cf. footnote 4), and predications according to the kinds of situations they denote. Since sentences typically involve predication, we can take their typologies as sentence classifications as well. Mourelatos' basic "ontological trichotomy" is state : process : event. States are static homogeneous situations in which there is nothing really happening (cf. Miller & Johnson-Laird 1976: 484ff.). Processes are homogeneous, too, but in them there is something going on: they are dynamic. "Process" corresponds to Vendler's "activity" -- Mourelatos reserves the latter term for processes that involve an agent. Events are not internally homogeneous but they are not open-ended, either, rather, they
are countable. In all, Mourelatos' classification looks like this (p. 201):

\[
\begin{array}{c}
\text{situations} \\
\text{states} & \text{occurrences (actions)} \\
\text{processes (activities)} & \text{events (performances)} \\
\text{developments (accomplishments)} & \text{punctual occurrences (achievements)}
\end{array}
\]

The dichotomy of states and occurrences corresponds to Maslov's (1973: 74) most basic universal aspectual distinction, viz. that between "non-actions" and "actions" ("dejstviya"), but Mourelatos has reserved the term "action" for agentive occurrences. In his scheme, the terms in parentheses name an agentive subclass of each situation class, i.e., a subclass of situations that involve personal or "quasi-personal" agency. Lyons (1977: 483) proposes the name act for agentive events (instead of "performance"), and this term should perhaps be preferred (then all the names of agentive situations begin with the letter "a").

It is generally assumed that states cannot be agentive: an agent is somebody who is doing something, but in states there is nothing that could be done. The problem is that states can nevertheless be controlled: a human being or an animal can sometimes choose whether to remain in a certain state or not (Dik 1978: 33; Bulygina 1982: 21). Bulygina gives the following Russian examples, among others (p. 84):

behavior: On byl(I) nem, kak ryba 'He was dumb as a fish'
States of this kind shade into processes: keeping a sitting position requires at least some kind of muscular activity. It is important to remember Lyons's (1977: 449) principle, already mentioned in 1.2.2: "What is ontologically indeterminate may be determined differently by the grammatical categories of particular languages." 11

Bulygina's classification differs from Mourelatos' scheme mainly in two respects. First, there is an overall dichotomy of "qualities and characteristics" ("kačestava i svojstva") vs. "phenomena" ("javlenija"). The former group consists of predications that involve characteristic time reference (see 2.5.1); "phenomena", involving contingent time reference, are then classified much as in Mourelatos' scheme. As the second main difference, the class of processes is further divided into two groups according to whether the process is entirely homogeneous, such as in the verb guljat´(I) 'to walk about', or involves a tendency towards a goal, such as in pisat´(I) pis´mo 'to be writing a letter'. The latter group consists of imperfective counterparts of perfective expressions that denote an accomplishment or other development (in Mourelatos' terminology). (Pisat´(I) pis´mo is a telic process, in the sense to be explained in 3.1.3.)

We need not discuss such classifications in greater detail, because the basic tenet of a denotative aspect theory for Slavic can readily be formulated in terms of Mourelatos' "ontological trichotomy":

The perfective aspect denotes events; the imperfective aspect denotes states and processes.

This is the basic idea of Kučera (1983); Bulygina (1982) seems to support this view, too. There are, however, two difficult groups of verbs. First, the delimitatives (and perduratives) of
the type pogovorit′(P) 'to speak for a while': Bulygina considers them process verbs in spite of their perfectivity, and Kučera reserves a special subclass of events for them. I will explain them in subsection 3.2.2 below. The second problematic group consists of imperfectives that denote an open series of events, such as naxodit′(I) 'find', dostigat′(I) 'reach'. Bulygina subsumes them under achievements and other punctual occurrences (again, in Mourelatos' terminology). In Kučera's scheme there is no obvious place for the type in question, which must be considered a serious shortcoming of his model. The type will be discussed in 3.2.4.

The distinction between states and processes is not grammaticalized in Slavic aspektual systems. (It is much more relevant to the opposition of simple and progressive forms in English, for instance.) State imperfectives and process imperfectives are only differentiated by the lexical semantics of the verb, e.g. Bulg. tja go vižda(I) sega 'she sees it now' vs. tja go čete(I) sega 'she is reading it now'. The common property of states and processes is that they are non-bounded: they do not contain an end point. This may seem a dubious statement because man certainly knows that practically all processes and states will eventually come to an end. But such a limit cannot be included in the reference to a process or state, it can only be imposed from outside:

(1) Četoxme(I,A) knigi ot dva do četiri časa.
'We read books from two till four o'clock.'

Note that četoxme is an imperfective aorist: the aorist shows that a limit is imposed upon the process denoted by the imperfective verb četa(I) (see 3.2.2). In Russian, a simple preterite has to be used and the outer limits are only shown by the prepositional phrases:

(1′) My čitali(I) knigi ot dvux do četyreh časov.
(Thelin 1978: 33)

Since events necessarily contain an end-point, we can say
that perfectives denote **bounded**, imperfectives non-bounded, or **open**, situations. The difference between events and open situations involves, however, more than just the existence or lack of a temporal limit (cf. 3.3).

As imperfectives denote non-bounded situations, there are two types of time reference they can imply: **continuous** or **habitual**, as defined in subsection 2.5.1. I repeat the examples given there:

(2i) Tja jadè(I) jabålki.
   a. "She is eating apples." (continuous)
   b. "She eats apples." (habitual)

(2ii) Tja jadešë(I,I) jabålki.
   a. "She was eating apples." (continuous)
   b. "She used to eat apples." (habitual)

In 2.5.1, the difference between the a and b readings was ascribed to two interpretations of the present and imperfect tense; yet the difference is here used to show that the imperfective aspect has two interpretations. But this is entirely consistent with what was said in section 2.6: the present, imperfect, and imperfective share the property of non-boundedness. "Continuous" and "habitual" are two interpretations that can be assigned to non-boundedness.

The distinction between continuous and habitual time reference is not independent of the process / state dichotomy. In English, habits are usually referred to with simple tenses (if no auxiliaries are used), so they are obviously categorized as states (cf. the discussion of **do you smoke?** in Vendler 1967: 108). The fact that a habit is a kind of state also explains why the Slavic imperfective can be used to express even a habit which consists of repeating an event, as in Bulgarian:

(3) Vseki den Ivan četešë(I,I) (or pročitašë(I,I)) cjaloto pismo.
   'Every day Ivan read the whole letter.'
In 2.5.1 we established that only in few cases can true instances of "habitual states" be found. This is why stativity and habituality do not require separate means of expression.

The habitual interpretation of the Slavic imperfective must not be equated with iterativity, as is commonly done. Notice that both readings of (2i) and (2ii) imply iteration -- there are several events of eating an apple. The distinction between a "processual" and "iterative" reading only works in sentences in which iteration naturally implies habituality, as in tja jade(I) jabālka 'she is eating an apple', (in a suitable context) 'she eats an apple <every time>'. But although the a-readings of (2i) and (2ii) are iterative, they are also processual. Iteration can be conceptualized both as a continuous process and as a state-like habit.

3.1.3: Aspect and lexical semantics. In his monograph on Russian aspect, Forsyth (1970: 46-56) classifies aspectual pairs according to the "types of action" they denote, and according to the interrelationship between the perfective and imperfective in each pair. Forsyth's five groups (largely derived from Maslov's earlier work) are as follows:

<1> Unpaired perfectives, e.g. ruxnut'(P) 'to collapse', zaplakat'(P) 'to start to weep'.

<2> Pairs in which the perfective expresses "an instantaneous effect of 'leap' into a new state", and the imperfective can only be used to express habituality or historical present, e.g. naxodit'(I) / najti(P) 'to find' in its concrete meaning.

<3> Pairs in which the perfective likewise expresses a transition into a new state, but the imperfective "can express the tendency towards, and gradual approach to, the critical point at which the action takes place", e.g. umirat'(I) / umeret'(P) 'to die'. 
Pairs in which "the process denoted by the imperfective represents in itself the gradual achievement of the result", and the perfective expresses that the result is wholly reached, e.g. *pisat*'(I) / *napisat*'(P) 'to write'.

Unpaired imperfectives, which express (a) various states, e.g. *žit*'(I) 'to live', *gostit*'(I) 'to be a guest', *spat*'(I) 'to sleep', *uvažat*'(I) 'to respect'; or (b) various activities that do not imply any necessary conclusion, e.g. *mesti*(I) 'to sweep', *prygat*'(I) 'to jump' (= 'to be jumping').

In group <4> Forsyth also includes some pairs of cognitive verbs whose perfective denotes the beginning of the state denoted by the imperfective, such as *videt*'(I) / *uvidet*'(P) 'to see', *ponimat*'(I) / *ponjat*'(P) 'to understand' (cf. Comrie 1976: 19-20; Vendler 1967: 113ff.). I do not find this a good solution because these verbs form a semantically distinct group -- even cross-linguistically -- in which the relationship of the imperfective and perfective is different from what it is in the *pisat*'(I) / *napisat*'(P) type. They should rather be regarded as a sixth type of aspectual pairs.

Forsyth's classification can easily be applied to Bulgarian, too, with the exception that group <1> has no counterpart there -- there are virtually no unpaired perfectives in Bulgarian (cf. *zaplakvam*(I) / *zaplača*(P) 'to start to weep', and *ruxvam*(I) / *ruxna*(P) 'to collapse'). Forsyth admits that even in Russian the lack of imperfective partners is largely "a matter of usage" only (p. 32), though it is a regular phenomenon with some procedurals (see 3.1.4).

Maslov (1981: 186) distinguishes three groups of Bulgarian verbs: (i) those with both the perfective and imperfective aspect; (ii) those with the imperfective aspect only; (iii) those in which the immediate context determines whether there can be a perfective expression. Group (i) corresponds to Forsyth's groups <2> and <3>, (ii) to <5>, and (iii) mostly to <4>. In the last group, it is typically the direct object that determines the possibility of perfective: *piša*(I) / *napiša*(P)
kniga(ta) 'to write a (/the) book', but only imperfective can be used in piša(I) knigi 'to write books (as an occupation)', piša(I) + ņ 'to write, to be able to write'.

Now, these kind of groupings are closely related to Vendler's original aim, i.e., classifying verbs according to the "time schemata" they involve. Every verbal lexeme has its inherent aspectual character (or character for short) which defines its position in the semantic domain of aspectuality and, consequently, determines the interpretations the aspect grammemes can have when applied to that lexeme. As Lyons (1977: 706) points out, "aspect and character are interdependent ... because they both rest ultimately upon the same ontological distinctions." The semantic domain of aspectuality -- i.e., the domain of situation classes -- receives either a lexical or grammatical expression. As a grammatical category, aspect is semantically more abstract and can only be made concrete through lexical categories: "the grammatical category of aspect is a result of a generalization of lexical material, is based on lexical material, and more widely, it reflects certain facts of the extralinguistic reality" (Seljakin 1984: 51).

An attentive reader may have noted one inconsistency in the definitions given so far. Aspect has been defined as a grammatical category, but not necessarily inflectional: if the members of an aspectual pair are different lexemes (cf. 1.4.2), aspect is a classificatory grammatical category, comparable to, say, the gender of nouns (at least to the limited extent gender has semantic content). But why should aspectual character not be a classificatory grammatical category in the same sense? Part of the answer might be that a verb's character is not so essential from the morphosyntactic point of view as its aspect is (cf. 1.4.1 on "formal restrictions"). This can hardly be formulated as an absolute distinction, though, and perhaps the difference between grammatical and lexical categories is merely a matter of degree. The transitivity of verbs, for instance, can be defined in terms of surface syntax but it also has its roots in the semantics of different action types. The grammaticality of a classificatory category is most clearly seen when its relation to semantics is arbitrary, as in the gender di-
tinctions of inanimate nouns. But since aspect is never detached from denotative semantics, the distinction between aspect and aspectual character may be only relative in universal grammar. In Slavic grammar the distinction is much easier to draw, however. The grammaticality of aspect is shown by the strong tendency to form aspectual pairs, irrespective of whether the means of formation is called inflection or word formation; hence aspect is at least a paradigmatic category, if not inflectional. With respect to aspectual character, there is no counterpart to this pairing tendency.

If Forsyth's groups reflect the aspectual character of verbs, they should be characterizable in denotative terms. Group <5> consists of verbs denoting processes and states. The other groups can be defined through the semantics of the perfective member of each pair. The perfectives of group <4> are developments (accomplishments), with the exception of the type uvidet' (P) 'to see'. Groups <2> and <3> contain perfectives that would all be "achievements" in Vendler's classification, and "punctual occurrences" in Mourelatos' scheme. It has been pointed out, however, that Vendler's achievements were not a homogeneous class. Contrary to Vendler's and Dowty's original assumptions, many English achievement verbs can be used in the progressive: Max is dying, Max is winning, Max is reaching the top (Vlach 1981: 279–280). Carlson (1981: 39) has proposed a useful distinction whereby these verbs are called "achievements (proper)", and those old achievements that really cannot be used in the progressive (such as to hit, to notice, and to blink) constitute a new class of "momentaneous" verbs. Applying this distinction, the perfectives of Forsyth's group <2> are momentaneous verbs and those in group <3> achievement verbs. Group <1> mainly consists of momentaneous verbs, too.

Carlson's proposal may require a corresponding change in Mourelatos' ontological scheme. I will not pursue this issue further because, from the viewpoint of aspect semantics, a somewhat different verb classification will prove useful. I will call verbs of group <5>, denoting various states and processes, atelic or inherently non-bounded. The pairs of groups <3> and <4>, where the imperfective denotes a process
which is directed towards the completion of the event denoted by the perfective, are telic pairs. Groups <1> and <2>, where the imperfective either does not exist or else only means habituality (or historical present), consist of momentaneous or inherently bounded verbs.

The term "bounded" (Russian "predel'nyj") is often used to cover both telic and inherently bounded verbs. Bounded verbs are those which either are perfective themselves or else have a perfective counterpart. "Bounded" then simply means 'can appear in the perfective aspect' and is hardly necessary as a separate term. In Maslov's (1973: 75, 77) universal classification of aspectual meanings, for instance, momentaneous and telic verbs are both classified as "bounded"; yet momentaneous verbs do actually not appear in the three meaning variants Maslov assigns to bounded verbs. In this study boundedness has been defined as the property which distinguishes events from other situations: a bounded situation (an event) contains its endpoint. ("Boundedness" is close to the term dostignutost' predela, used in Russian aspectology.) Derivatively the term "bounded" applies to expressions (verbs, verb phrases, sentences) that denote events.

The term "telic" was first proposed by Howard B. Garey (1957) in a study of aspect in French. Telic verbs were recognized with an entailment test: since (4a) does not entail (4b), make is a telic verb; (5a) does entail (5b) and sing (without an object!) is an atelic verb:

(4a) Peter was making a chair.
(4b) Peter has made a chair.

(5a) Peter was singing.
(5b) Peter has sung.

(Gareys original examples used the French imparfait and passé composé). This test as such cannot be applied in Bulgarian, because its perfect tense is more independent of aspect than is the perfect in English or French. But observing the semantic interrelationship of the members of each aspectual pair we can
determine the telic pairs. An imperfective verb is telic if it denotes a process that is directed towards the completion of an event, denoted by a perfective verb; a perfective verb is telic if it has a telic imperfective counterpart.

Since telicity is defined as a certain kind of relationship between the interpretations of the perfective and imperfective, it logically cannot be grammaticalized as an aspect distinction but must remain part of the aspectual character. Moreover, we should not expect that exactly the same types of situations are conceived of as telic in different languages. Forsyth's group <4> contains verbs that would probably be telic in all languages, but the contents of group <3> vary more. In English, is coming and is arriving are perfectly normal progressives denoting telic processes, but the nearest Russian equivalents of to come and to arrive, viz. prijti(P) and priezat'(P), are momentaneous verbs: their imperfective counterparts prixodit'(I) and priezhat'(I) only allow the habitual and historical-present readings (Maslov 1974: 111):

(6) *Smotri, vot on uže prixodit(I)!
    'Look, there he is already coming!'

In 3.2.1 we will return to telic verbs and see that they constitute the focus of aspect opposition.

3.1.4: Aktionsarten. Something should now be said about the notion of Aktionsart (Russian sposob dejstvija, Bulgarian način na dejstvie) -- not because it would be really needed in this study, but because it is much used in aspectology and it will therefore be useful to see its relation to the concepts introduced so far.

Karl Brugmann (1904: 493) defined Aktionsart as follows: "Aktionsart ist, im Gegensatz zu Zeitstufe, die Art und Weise, wie die Handlung des Verbums vor sich geht." No distinction is made here between Aktionsart and aspect, since this distinction is only due to Agrell's (1908) dissertation Aspektänderung und Aktionsartbildung beim polnischen Zeitworte. Agrell noted that
when a prefix is added to an imperfective verb, the result can be either a lexically new verb or a perfective counterpart of the imperfective; and in the latter case, the prefix may either merely change the aspect of the verb or also indicate its Aktionsart. So, the Aktionsart was a category of word formation which had to be distinguished from aspect, though it evidently was also linked with it: the Aktionsarten specify perfectivity as to "Zeitverlauf" and "Resultaterreichen" (p. 78). Agrell found twenty Aktionsarten in Polish (p. 82; cf. Koschmieder 1934: 3-4). Among traditional Aktionsarten are punctuality, resultativity, terminativity, iterativity, and several others.

Nowadays the term "Aktionsart" is used in two conflicting senses (cf. Lyons 1977: 705-706; Šeljakin 1983: 19ff.): it is either conceived of as a lexical category, independent of its expression by means of affixes, or it is defined as a category of word formation, intermediate between aspect formation and derivation of wholly new lexemes.

The most notable representative of the first view is Ju. S. Maslov (1959: 184-191; 1981: 186-187). According to him, the Aktionsart of the verb can be expressed by an affix, but it need not; all verbs, including the underived, have an Aktionsart. The Russian verbs stojit'(I) 'to stand', ležat'(I) 'to lie', and spat'(I) 'to sleep', for instance, belong to the stative Aktionsart. Aktionsarten are varieties of the two main aspectual classes of verbs, "predel'nyj" (our "inherently bounded" and "telic", see above) and "nepredel'nyj" (our "inherently non-bounded"). In the Bulgarian grammatical tradition, Aktionsart is likewise defined as a lexical category by Ivanova (1974) and Stankov (1980: 7). It should be noted, however, that Ivanova's monograph on Bulgarian Aktionsarten mainly concentrates on affixal means of expressing this category, in spite of her principal adherence to the lexical definition.

Use of the term "Aktionsart" in this sense is fully justified, but we have already adopted the term "aspectual character" for the same purpose, and will thus continue to use it. It may well be that način na dejstvie could serve as a suitable Bulgarian rendering of "aspectual character", but in English text "Aktionsart" is not needed in this sense, as it is
always difficult to determine which definition of this term is meant. There is the further problem that the use of "Aktions-
art" (and its equivalents in Slavic languages) is often connected with the idea that aspect and Aktionsart have different semantic domains: aspect is then defined according to some variety of the "totality" model (see 1.4.4), whereas Aktionsart is assigned more denotive meanings. Aktionsart is tradition-
ally regarded as "objectively" determined by the denotatum, and aspect is considered to allow for subjective choice "how to present the situation" (Bache 1982 is a recent attempt along these lines). The idea of the alleged subjectivity of aspect was already refuted in 1.4.4: there are always alternative ways of encoding a situation, and aspect does not hold any special position in this respect. It should be noted, however, that Maslov and several other Soviet aspectologists do see the close connection and common semantic domain of aspect and Aktionsart, so in their usage the latter notion closely corresponds to our "aspectual character".

The other main use of the term "Aktionsart", closer to 
Agrell's original definition, is exemplified by Forsyth (1970: 
18-19). According to him, Aktionsarten -- which he calls proce-
durals -- are always formally marked by affixes. Forsyth dis-
tinguishes three different types of prefixation:

(i) The prefixed verb denotes a new type of "action" 
(i.e., situation), being a lexical derivative of the 
original verb, e.g. brat'(I) 'take' -> wybrat'(P) 'to 
choose'.

(ii) "The prefix may leave unaltered the basic meaning of 
the original verb (i.e. it still denotes exactly <?> 
the same type of action) but indicate how that action 
develops or proceeds in particular circumstances", 
e.g. brat'(I) 'to take' -> perebrat'(P) 'to take one 
after another'.
(iii) The prefix may simply form a perfective counterpart of the imperfective (cf. the discussion of prefixal pairs in 1.4.2).

It is the derivatives of type (ii) that are called "procedurals". Basically the same view is also adopted in the new Academic Grammar of Russian (Russkaja grammatika 1982: 596). In the Academic Grammar of Bulgarian (Gramatika 1983: 283), the author of the corresponding section Kalina Ivanova tries to have her cake and eat it, too, as was also the case in her earlier monograph (1974): Aktionsarten are established on the basis of word-formational types, but they can also be assigned secondarily to underived verbs.

The raison d'être of Forsyth-type definitions of Aktionsart is the fact that in Slavic languages there exists a large number of derived verbs in which the derivational morpheme (a prefix, for the most part) seems only to modify the meaning of the original verb, much like adverbs in other languages. Consider the following perfective derivatives of Bulgarian varjä (I) 'to boil, too cook' (all of these also have imperfective counterparts in principle; the glosses do not pretend completeness):

- zavarjä 'weld; solder'
- navarjä 'boil (a lot of something)'
- ponavarjä 'boil (a certain amount of something)'
- obvarjä 'boil slightly, parboil'
- podvarjä 'bring to the boil'
- prevarjä 'boil again; overboil; boil (an egg) hard; sterilize; distill'
- poprevarjä 'overboil slightly'
- razvarjä 'boil soft, overboil'
- porazvarjä se 'boil soft' (intransitive)
- izvarjä 'boil completely; sterilize; distill'
- doizvarjä 'boil to the end'
- poizvarjä 'boil slightly; boil every now and then'
- vâzvarjä 'bring to the boil'
- obivarjä 'boil slightly, parboil'
dovarjå 'boil to the end; boil more'
nedovarjå 'underdo, leave half-boiled'
povarjå 'boil a little'
svarjå 'boil, cook'
nasvarjå 'boil (a lot of something)'
posvarjå 'parboil; boil every now and then'
otvarjå 'boil (as needed); unsolder'
uvarjå 'boil'
douvarjå 'boil more (as needed)'

In one case we certainly are dealing with an entirely different lexeme: zavarjåvam(I) / zavarjå(P) 'to weld, to solder' does not designate a kind of boiling. Prevarjåvam(I) / prevarjå(P) and izvarjåvam(I) / izvarjå(P) also possess some specialized meanings. The verb svarjå(P) (and the rarer uvarjå(P)) is, or comes close to being, a true perfective counterpart of varjå (I), though it of course has a secondary imperfective of its own, viz. svarjåvam(I). All the remaining verbs denote "modified boilings", different kinds of boiling, by means of prefixes that are used in the same function in many other derivatives as well. Verbs of this kind deserve a name of their own; in English, Forsyth's "procedural" can be used so as to distinguish this definition of "Aktionsart" from other definitions.¹⁸

It is not always easy, though, to draw a semantic distinction between procedurals and lexical derivatives proper. Derivatives with local meanings, for instance -- such as Russian vxdit' (I) / vojti(P) 'to enter', from idti(I) 'to walk, to go' -- are classified differently by different scholars in this respect (cf. footnote 20). Isačenko (1962: 359-418) tried to find a formal criterion for distinguishing Aktionsarten (i.e. procedurals) from lexical derivatives: he considered only those verbs as representatives of Aktionsarten that are unpaired, i.e., lack an imperfective or perfective counterpart. This definition has been rightly criticized by Forsyth (1970: 20ff.) and Lehmann (1978: 131-132): it is semantically arbitrary because in Russian the unpairedness of verbs does not follow automatically from their meanings, and quite similar derivatives may be classified differently according to Isačen-
ko's criterion if some of them happen to have an aspectual partner. Moreover, the criterion would yield different results in different Slavic languages -- in Bulgarian the result would be that there are no Aktionsarten at all.

Porsyth (1970: 25-26) points out that in some cases procedural adverbs and lexical derivatives may be distinguished by morphological patterns. Russian napadat' (I) / napast' (P) 'to attack' is clearly a lexical derivative proper of padat' (I) / past' (P) 'to fall', whereas napadat' (P) 'fall (in considerable quantity)' must be considered its procedural (cf. isačenko 1962: 437-438). Similar instances can also be found in Bulgarian:

padam (I) / padna (P) 'to fall'
nepadam (I) / napadna (P) 'to attack'
napadvam (I) / napadam (P) 'to fall (in a great quantity)'

Formal differences of this kind only appear if the original verb has a non-prefixed (i.e., primary or suffixally formed) perfective stem. Perfective lexical derivatives then use this ready-made perfective stem and add their prefixes to it, while perfective procedural verbs use the standard procedure of perfectivizing the imperfective stem with a prefix.

Distinguishing procedural adverbial proper is not the only problem in their semantic definition. There are no criteria for establishing just how many procedural types there are in a given language, because one and the same prefix may have different procedural functions. Ivanova (1974) has found as many as 53 procedural types in Bulgarian; the fact that Ugrinova-Skalovska (1960: 17) has only found 25 in Macedonian, or that Isačenko recognizes a dozen of main types in Russian, is not primarily due to differences between these languages but rather only to the differences between the criteria the scholars have used -- obviously classification may show coarser or finer gradations of precision. The finer the classification, the less relevant the resultant procedural classes will be for the study of aspect. Perhaps they cannot be said to be outside aspectuality, but they are peripheral.
In one respect, however, procedurals are important for the study of Slavic aspect. As is well known, the perfective aspect has no formal marker of its own, and only part of the imperfective verbs (the secondary imperfectives) contain a suffixal marker of imperfectivity. Perfectives (except the few primary ones) are recognized by the pattern "prefix + imperfective stem", but there are no prefixes whose sole or even primary function would be to mark perfectivity. Moreover, although the suffixes of imperfectivization certainly are true markers of aspect, historically they derive from markers of habitual procedurals and are still secondarily used as such in some Slavic languages (cf. 2.5.1).

Among the three functions of prefixation in Slavic (see above), the formation of procedurals is diachronically primary and synchronically the only productive one. In some procedural verbs, the meaning of the prefix has been specialized so that a totally new lexeme has arisen; in some other derivatives, on the contrary, the meaning of the prefix has weakened and a prefixal aspectual pair has appeared, but no prefix has specialized as the marker of the perfective aspect as such. Thus, the expression of the perfective aspect is parasitic on the expression of procedurals and lexical derivatives proper.\textsuperscript{21}

3.1.5: Bounded and open situations and time reference. In section 2.6, a connection was established between time reference and aspectuality, based on the distinction between boundedness and non-boundedness (openness). We can now present an overview of the manifestations of the semantic bounded / open opposition (see the table on the following page).

The present time must be considered to be the common origo of the aspectual and temporal systems, because present time reference necessarily implies a reference to an open situation (except for the few special cases dealt with in 2.6). From one point of view, what exists exists only in the present; the past exists only in the memory, the future only in our expectations (cf. Lyons 1977: 811, referring to St. Augustine). It is always "now". We are always in the middle of a certain
state of affairs that we can only see "from within" and that cannot contain events. Events are "over there", in times observed "from without".

The affinity of present time reference and the imperfec-
tive explains the phenomenon called the imperfective paradox (Dowty 1977; Carlson 1981: 44-45; Vlach 1981: 278-279): an utterance containing an imperfective telic verb can be true even if it is known that a corresponding utterance with a perfective verb never came (is never going to come) true, i.e., even if it is known that the end-point was never (will never be) reached. So, sentence (7) does not entail that the symphony ever became ready:

(7) Kompozitorat pišeš(I,I) nova simfonija.
    'The composer was writing a new symphony.'

It could be thought that (7) refers to the composer's inten-
tion, but it is of course perfectly possible that he knew himself that the symphony would be left unfinished:

(8) Starijat kompozitor pišeš(I,I) nova simfonija, makar če znašeš(I,I), če šte umre(P) skoro.
'The old composer was writing a new symphony though he knew he would soon die.'

Dowty's (1977) solution is to postulate a branching time line: starting from the time point a sentence like (7) refers to, there are several potential courses of events, and only some of them ensure that the composer in fact wrote (napisa(P,A)) a symphony; the actual course of events may or may not belong to this set. We have noted (in 1.3) that the future half of the time line is sometimes thought to be branching in this way, but Dowty's solution would mean that the time line is branching everywhere. If we, however, bear in mind that the imperfective past (or imperfect) is a kind of "present in the past", a simpler solution can be figured: the imperfective past shifts not only the speaker's point of view but also the point of branching to the past. What follows that point is treated as the future with respect to the speaker's commitments. Sentence

(7') Kompozitorat piše(I) nova simfonija.

'The composer is writing a new symphony.'

is not considered to commit the speaker to the view that the composer will actually finish the job. In the same vein, (7) does not say what actually happened; even if the speaker knows that the symphony was never finished, (7) can still be used. The imperfective imperfect leaves the ensuing course of events indeterminate precisely as the present tense leaves the future time.

What is outside the temporal and aspectual origo NOW can be designated as THEN. This is a fundamental deictic distinction, like HERE vs. THERE in spatial deixis. The situations in NOW are always open; in the simplest case, the situations in THEN are bounded, i.e. events. In diagram (i), "(---)" means a bounded and "------" an open situation:
(i)

This is a primitive system, certainly not realized as such in any language: there must be some way of speaking of past and future situations that are not bounded. In languages where there is aspect but no tense, the imperfective aspect is allowed to refer to such situations, though it unmarkedly refers to the present; the perfective is the unmarked THEN:

(ii)

In languages which have tense but no aspect, the THEN feature is permitted to connect with open situations, though it unmarkedly connects with boundedness:

(iii)
Finally, languages with both aspect and tense, such as the Slavic languages, have a formally independent grammaticalization for both situation type and time reference:

\[ (iv) \]

Dahl (1984: 7-9) has recently discussed the typology of tense and aspect systems. In several languages it seems more correct to say that the imperfective can be temporally differentiated as present or past, than that the aspect opposition is confined to the past tense. As regards the aorist / imperfect opposition in Modern Bulgarian this is certainly true, since the imperfect has the same stem as the present (apart from the thematic vowel), to which it adds personal endings that are, for the most part, the same as in the aorist (cf. 1.5.2). Historically the imperfect stem has been closer to the aorist, and it has had its own set of personal endings. Hence, the imperfect has leveled its stem with the present and its endings with the aorist. The tense-aspect system depicted in (iv) can obviously be perceived in two fashions: imposing the tense distinctions of (iii) on the aspect system of (ii), or the other way round. The Bulgarian system of aorist, imperfect, and present, has changed from the latter into the former type (cf. Aronson 1977: 9ff.). As for the Slavic perfective / imperfective distinction, in it the tense distinctions are likewise imposed upon the aspectual ones because the latter rest on derivational morphology (cf. 3.1.4).

The theory that NOW vs. THEN is a fundamental distinction both for tense and aspect has been put forward at least by Heger (1963). He first postulates a basic opposition of "jetzt" and "nicht-jetzt". Heger's further argumentation is worth quot-
ing in full, for his monograph, dealing mainly with French and Spanish, is certainly not well-known among Slavists:

"Wenn nun der Sprechende einen durch ein Verb definitorisich fixierten Vorgang auch temporal-deiktisch bestimmen will, kann er dies auf zweierlei Weise tun. Entweder wird er die Opposition von 'jetzt' und 'nicht-jetzt' auf sich selbst beziehen, wobei aus dem 'jetzt' seine Gegenwart und aus dem 'nicht-jetzt' seine Nicht-Gegenwart werden. Diese Kategorien bezeichnen wir als Zeitstufen. Oder aber, im anderen Fall, bezieht er die fundamentale Opposition auf den ausgesagten Vorgang. Das 'jetzt' wird dabei zum 'jetzt' des Vorgangs, der somit von innen her, das heisst von einem sich innerhalb seines Ablaufs befindenden Bezugs punkt aus dargestellt wird, und entsprechend für das 'nicht-jetzt' zu einer Darstellung des Vorgangs von einem Bezugs punkt aus, der sich ausserhalb seines Ablaufs befindet. Diese Kategorien bezeichnen wir als Aspekte, und zur Benennung der in ihnen gegebenen fundamentalen Opposition benutzen wir die Termini imperfectiv und perfektiv" (pp. 22-23, orig. emphasis).

Heger then proceeds to develop a rather complicated systematization of temporal reference, which has not been made use of in the present study. I do not think he is right in considering aspect a deictic category, because it is not directly based on the "here and now" of the speaker and hearer, as a deictic category should be. Nor do I accept Heger's view that aspect has to do with time reference only and that it therefore should be semantically distinguished from Aktionsarten; I think aspect ought not to be deprived of its denotative properties. The latter remark also applies to Popova's (1976: 90-91) arguments, which are to some extent parallel with Heger's. It is nevertheless Heger's merit to have broken with the traditional dogma that aspect and tense have to be strictly distinguished, and to have pointed out the significance of the opposition of "jetzt" and "nicht-jetzt".
In the time reference schemes given in Ch. 2, one role of a past or future point of reference (R) was to serve as a projection of the present moment, to provide a new vantage point from which past or future situations can be viewed non-boundedly when they are taking place (Seljakin & Schlegel 1970: 71).

The whole argumentation above rests on the assumption that NOW : THEN is, in some sense, a more fundamental distinction than, say, PAST : NON-PAST. This assumption is not based on historical or psycholinguistic data; its correctness, as a generalization, primarily depends on how it agrees with, and helps to make sense of, the grammatical facts of various languages. But it is interesting to note that, according to Clark & Clark (1977: 541; 1978: 251), children acquiring language first talk about the "here and now"; then they acquire the notion of past, then that of future. Children often use the word yesterday for referring both to the past and the future, i.e., to the non-past. Even in some adult languages there are adverbs referring to "both directions" in time: the Bulgarian skoro means both 'soon' and 'recently', being a temporal counterpart of blizo 'near by'.

It may be safest to assume that although NOW : THEN is the fundamental deictic distinction in time, PAST is the primary representative, or interpretation, of THEN. In narrative discourse, the events often take place in "epic tunc" (Maslov 1980: 44) which is not necessarily more past than future, but the narration normally makes use of past tenses -- even in novels explicitly describing the future (cf. 1.3).

The child's first expressions referring to the past seem to be perfective. According to Slobin & Aksu (1982: 191), when a child is learning Turkish, his or her "earliest references to the past are all of this completive character, more appropriately described in terms of aspect than tense, and limited to change of state verbs encoding situations with immediately perceptible results"; they also cite similar observations from other languages. In tense languages, the perfect is often acquired before other past tenses (Weinrich 1964: 62) -- obviously the resultative perfect, which is typically bounded. All
this indicates that at least part of temporal and aspectual oppositions are ontogenetically derived from some sort of primary distinction between NOW and THEN, between present and non-present.

3.2 Aspectual Nesting

3.2.1: The problem and the hypothesis. In Bulgarian, perceptive verbs can be used in the imperfect, and imperfective verbs in the aorist. This is often regarded as the major counterargument against considering the distinction between aorist and imperfect an aspectual opposition. One function of the perfective imperfect has already been described in 2.4.1 and 2.4.3: in certain embedded sentences imperfect is used as a past future, so there is then nothing strange with perfective verbs. In this section I try to account for all the other interpretations of the perfective imperfect, and some important interpretations of the imperfective aorist (the remaining will be discussed in 3.3). The parallelism between the imperfect and the present should be borne in mind: the explanations given for the perfective imperfect ought to be applicable to the perfective present as well. This section also offers an account for napisvam(I)-type verbs (introduced in subsection 2.5.3 above), and for delimitative and perdurative perfective procedurals like pospja(P) 'to sleep for a while, to have a nap', prospja (P) 'to sleep (for a certain time)', preživeja(P) 'to live (for a certain time)'.

Compare first the following four sentences:

(9a) Tja pja(I,A) pesen(ta) tri minuti.
    'She sang a (/the) song for three minutes.'

(9b) *Tja pja(I,A) pesen(ta) za tri minuti.

(10a) *Tja izpja(P,A) pesen(ta) tri minuti.
(10b) Tja izpja(P,A) pesen(ta) za tri minuti.
'She sang a (/the) song in three minutes.'

The imperfective and perfective aorist connect with different types of duration adverbials. Sentence (9a) says that there was activity of singing going on for three minutes, but the whole song did not necessarily get sung. Sentence (10b) denotes a typical accomplishment in which "she" really succeeded in singing the song to the end, and it took her three minutes to do so.

Compare further:

(11a) Tja peeše(I,I) pesen(ta) tri minuti.
'She used to sing a (/the) song for three minutes.'

(11b) Tja peeše(I,I) pesen(ta) za tri minuti.
'She used to sing a (/the) song in three minutes.'

With both types of duration adverbials, the imperfective imperfect only has a habitual reading. (In a slightly different context, (11a) would receive the non-habitual reading that the singing had been going on for three minutes up to that time and was still going on: Tja veče peeše(I,I) pesenta tri minuti 'she had already been singing the song for three minutes'. In such sentences, the Bulgarian present and imperfect correspond to the English perfect and pluperfect, respectively.)

A typical context for a perfective imperfect is a temporal or conditional clause embedded in a sentence expressing habituality:

(12) Sled kato pročeteše(P,I) sutrin molitvata, trągvaše(I,I) za seloto.
'Every morning, having said the prayer, (s)he left for the village.'

The aorist pročete(P,A) would be ungrammatical here.

In the imperfective aorist of (9a), an open situation (state or process) is bounded from the outside by a temporal
limit; the aorist reflects this outer boundedness. In the perfective imperfect of (12), we have a bounded situation (event), viz. saying a prayer to the end, but it is habitually repeated; the habituality counts as an open situation and is expressed by the imperfect. In both the imperfective aorist and perfective imperfect, the aorist / imperfect opposition dominates the perfective / imperfective opposition (cf. Comrie 1976: 32) — it can impose boundedness on non-boundedness, or vice versa. But the innermost value of boundedness is preserved, too: in (9a), the singing itself remains an open activity that did not reach any inherent end point, and in (12), the habitually repeated situations are clearly events, rather than processes or states. The imperfective aorist and the perfective imperfect are both instances of aspectual nesting, a more general phenomenon which has other manifestations, too, in Bulgarian and in other languages (Lindstedt 1984).25

Aspectuality can be expressed in various nested layers of the sentence structure (Timberlake 1982: 309–310; cf. Verkuyl 1972), such as the semantics of the verb lexeme, the verb's aspect affixes, time adverbials, and -- if an utterance is considered -- the discourse context in which the utterance appears. I will mark the innermost layer, the verb's aspectual character, with (B), (O), and (X), standing for an inherently bounded (momentaneous), an inherently open (atelic), and a telic verb, respectively (cf. 3.1.3). The aspectual contribution of the outer layers will be marked by recursively applying B and O to these nuclei as if they were operators, e.g. B(O), O(B(O(X))). Those elements in the sentence that have the aspectual value B can be called bounds, those expressing the O-value are openers.

Timberlake (ibid.) has proposed a hierarchy of layers that express aspectuality,26 but I am not happy with the terminology he uses. I assume that the following hierarchy is better suited for Bulgarian and, mutatis mutandis, other Slavic languages:

1. verb's inherent aspectual character
2. perfective vs. imperfective
3. aorist / imperfect / present
4. direct object
5. other actants
6. free adverbials of duration and frequency
7. discourse context

The role of NP's (points 4. and 5.) is a complex issue (cf. Wierzbicka 1967, Carlson 1981). It would deserve a detailed treatment, but there is not sufficient space for it in the present study. I shall mainly concentrate upon the other five layers, but in 3.2.5 I shall also briefly discuss the possibility of having negation as a separate layer.

Now, it is of course possible that several adjacent layers express the same value of aspectuality, at least insofar as B and O are concerned. A momentaneous verb, for instance, may be used in a perfective aorist, with a frequency adverbial 'once', in a discourse context that clearly presupposes an event (rather than state or process). Formally we then have a structure of the type ...B(B(B(B)))..., but the bounds are not independent (cf. Heinämäki 1984): they only further specify (partly redundantly, in this case) the sole limit of the event. As regards the distinction between bounded and open situations, the structure is semantically equivalent to a simple B. I propose the following rules of semantic simplification:

(i) B(B=B; O(O = O)
(right parentheses are deleted accordingly)

These rules greatly reduce the number of types of nested structure we have to take into account. The rules presuppose that two adjacent bounds and openers cannot be independent, but this is in fact not always the case. The issue will be taken up in 3.2.5 below.

A corollary of the simplification rules in (i) is that if layer L_i has aspectual value A_i (ranging over B, O, and, in the innermost layer, X), and layer L_j has aspectual value A_j, the place of A_i and A_j in the overall aspectual structure of the sentence only depends on whether L_i or L_j is inner, and is
independent of what layers $L_i$ and $L_j$ actually are. The nested structure $B(O)$, for instance, which is expressed in Bulgarian by an imperfective aorist, could be expressed in another language by using a verb with a process character in a discourse context that presupposes an event. This does not necessarily mean that nested aspectual structures should be acknowledged to be universal deep structures, realized differently in different languages. They are primarily abstractions from the actual syntactic structures of each individual language, but of course their usefulness consists partly in the possibility of cross-language comparisons.

The position of telic verbs, whose aspectual character has been marked with $X$, has not been defined yet as regards semantic simplification rules. I assume that only the innermost layer can have the value $X$: telicity cannot be imposed on another aspectual value. At first sight it might seem that verbs like piša(I) 'to write' and peja(I) 'to sing' are counterexamples to this claim. When used without an object, they denote atelic situations, whereas with an object they denote telic processes (cf. Maslov's classification of Bulgarian aspectual pairs in 3.1.3), so the effect of the object could be described with the formula $X(O)$; the perfective counterparts would then be instances of $X(B)$. But this would insidiously change the meaning of "$X"; it would now designate telicity as a property of an open or bounded situation, instead of designating a verb (or aspectual pair) that is telic and therefore can denote both an open and a bounded situation. I assume that the atelic and telic interpretations of imperfective verbs like piša and peja are contextual variants whose appearance is not directly connected to the phenomenon of aspectual nesting. With an object, their semantic structure is $O(X)$; without an object, it is simply $O(O) = O$.

It is clear that $O(X)$ and $(O)$ are not equivalent, nor are $B(X)$ and (B): a telic process that is approaching its inherent end point, such as the process of reading something, is not the same thing as a process or state that could continue indefinitely long, such as standing; and a telic event, such as the accomplishment of reading something through, is not the same
thing as an inherently bounded event, such as finding something, in which there is no corresponding process of finding. On the other hand, O(X) and (O) are both equally open, and B(X) and (B) are both equally bounded. Hence the rules in (i) can be supplemented with the following:

(ii) B(X) counts as (B), and O(X) counts as (O)
     -- with respect to boundedness, but not with respect to telicity.

Since we are mainly concerned with layers of bounds and openers in this section, we will be using (B) to mean (B) or B(X), and (O) to mean (O) or O(X). Thus, the imperfective aorist of (9a) will be designated as B(O) and the perfective imperfect of (12) as O(B), though they actually represent the types B(O(X)) and O(B(X)), respectively.

A consequence of this model is that if a verb (or an aspectual pair) is not telic, either the perfective or the imperfective form represents a nested semantic structure. In other words, telic verbs are the focus of the opposition of the perfective and imperfective. Forsyth (1970: 53) points out that "it is in the pairs in group 4 <cf. 3.1.3> that the aspectual relationship pure and simple most consistently appears" (cf. also Tommola 1981: 101). In Forsyth's group <2> (the type naxodit'(I) / najti(P) 'to find'), the imperfective necessarily represents the nested structure O(B), while the perfective is B(B) = B. As for group <5> (the unpaired imperfectives), the procedurals that come closest to being perfective counterparts of the verbs of this group, viz. delimitatives and perduratives, represent the structure B(O) (with additional nuances of meaning, to be sure; cf. 3.2.2).

Maslov (1973) has drawn an important distinction between qualitative and quantitative components of aspectuality. (Timberlake 1982 calls them "topological" and "metrical parameters"). Qualitative components are those that, in our terminology, express the main situation class and telicity; quantitative components express such oppositions as semelfactivity vs. iteration, and limited duration (or limited iteration) vs. non-
limited duration (or non-limited iteration). It seems that if in a nested aspectual structure there are more than one O or B, the outer O's and B's only express quantitative parameters. But there is still a link to the situation classes: in discourse anything that is bounded counts as an event, and anything that is open counts as a process or state, irrespective of the inner layers. And it is the outermost layer that determines the time reference properties of the sentence: R is simultaneous with E if and only if the outermost aspectual value is O.

3.2.2: B(O) -- delimitatives. At least since Koschmieder (1934: 63), aspectologists have been wondering why the aorist can be used in the Ancient Greek sentence

(13) Ebasileuse triakonta etē.
    'He reigned for thirty years.'

as well as why the passé simple can be used in its French equivalents:

(14a) Il fut roi pendant trente ans. (Heger 1963: 104)
(14b) Il régna trente ans. (Comrie 1976: 17)
(14c) Il r<é>gna pendant trente ans. (Lyons 1977: 709)

The Bulgarian translation of (13) contains an imperfective aorist:

(15) Toj caruva(I,A) trijset godini.

This is an instance of B(O): an open situation is bounded by a temporal limit. Bulgarian gives a formal expression both to the inner openness (with the imperfective) and to the outer boundedness (with the aorist). In Ancient Greek and French, the inner openness is expressed by the aspectual character of the verb. The Bulgarian caruvam(I) 'to reign' is, of course, inherently atelic, too; the structure B(O) results from a simplification of B(O(O)).
In (9) we saw the first imperfective aorist of this kind. Here are some others:

(16) A kolko pja(I,A) djado Galuško i koe vreme beše(I), nikoj ne znaeše(I,I). Vse edno če mina(P,A) godina. 'And how long Old Galuško sang and what time it was, nobody knew. A year seemed to pass.' (Anton Dončev) // A kogato nauči(P,A) za smrtta na moja mal hacein, toj se razválnuva(P,A) i dàlgo me razpita(I,A) i utešava(I,A). 'And when he learned about the death of my little son, he became upset, and asked questions and consoled me for a long time.' ("Spomeni za Vapcarov", in Vapcarov's Izbrani tvorbi, Sofija 1976) // Prez letnja semestër na učebnata 1941/1942 godina toj čete(I,A) lekcii várxiu Motivi v bâlgarskite narodni pesni. 'During the summer term of the academic year 1941-1942, he read lectures on "Motifs in Bulgarian folk songs". (Ivan Duridanov; the accent sign is original) // -- Sledobed četox(I,A) v bibliotekata. -- Do kolko časa čete(I,A)? '-- In the afternoon I read in library. -- Till what time did you read?' (from a textbook) // Osemdeset godini teglix(I,A) i stradax(I,A) kato kuče, ta sega li razat šte vidja(P)? 'For eighty years I've endured and suffered as a dog, so would I now find rest?' (Elin Pelin) // Otec Jerotej stoja(I,A) edna minuta da go gleda(I) taka. 'Father Jerotej stood for a minute, looking at him in that way.' (Ivan Vazov, quoted in Stankov 1969: 65) // Vednæž, kato pomagã(I,A) desetina dni nared, Tjulev mu podade(P,A) deset leva. 'When he once helped him some ten days in a row, Tjulev gave him ten leva.' (Georgi Karaslavov, quoted in Maslov 1981: 250; the accent sign is original)

Galton (1976: 160) quotes a very illustrative Macedonian example:

(17) Ne znam koga crvot viegol(P) meju nas dvajca. Nê jade (I,A) što nê jade(I,A) dodeka ne nê izeđe(P).
'I do not know when the worm crept in between the two of us. It ate us, ate us, until it had eaten us up.'

In (17) the duration is emphasized with repetition, as in the following Bulgarian example:

(18) Toj gleda(I,A), gleda(I,A) dokato mu se zamāgli(P,A) pogLEDāt.
    'He looked and looked until his eyes grew dim.'
    (Elin Pelin, quoted in Maslov 1981: 250)

As already shown by (10a), adverbials expressing duration without the preposition za 'in' cannot normally be attached to a perfective aorist:

(19) *Toj dālgo izleze(P,A).
    'He went out for a long time.'
    (Stankov 1980: 55)

But -- just as in other Slavic languages -- delimitative and perdurative perfective procedurals can be used with such adverbials:

(20) Pospax(P,A) dva časa.
    'I slept for two hours.'

(21) Preživjavx(P,A) v Peštera tri godini.
    'I lived in Peštera for three years.' ('I spent three years in Peštera.')

Pospax(P,A) and preživjavx(P,A) represent the structure B(B(O)) = B(O) (but cf. below), where the two B's represent the aorist and the perfective, and the O reflects the atelic character of spja(I) 'to sleep' and živeja(I) 'to live'. Thus, both imperfective aorists and delimitative and perdurative perfective procedurals express the nested aspectual structure B(O). I will call them all delimitative expressions, extending the meaning of the term. In the narrower sense, I will always speak of
"delimitative procedurals".

In delimitative procedurals there is sometimes no explicit layer expressing the inner O. For the lexemes pospja(P) and preživeja(P), the structure B(O) is obvious, owing to the atelic character of spja(I) and živeja(I); but if a verb like početa(P) 'to read for a while' is used with an object, its structure would seem to be B(X), which it cannot be since this is the structure of pročeta(P) 'to read (through)'. So, it is best to assume that delimitative procedural prefixes in fact contain two layers in the form B(O...):

\[
\text{pospja}(P) : \ B(O(O)) = B(O), \text{ by (i) in 3.2.1}
\]
\[
\text{početa}(P) : \ B(O(X)) ( = B(O) \text{ by (ii), insofar as mere boundedness is concerned})
\]

Perdurative and delimitative perfective procedurals can be semantically equated with imperfective aorists only insofar as their aspectual structure is concerned; in other respects, they differ in meaning. Imperfective aorists represent the structure B(O) in its purest form. Delimitative procedurals suggest that the period used for the process or state was relatively short. Perdurative procedurals, on the contrary, emphasize the length of the duration; they always require an explicit time expression, a kind of direct object expressing the period which was "filled" with the given type of open situation (Maslov 1959: 224-225). These additional meaning components need not be essential in all contexts; compare the following sentences, found in a novelette by Andrej Guljaški on consecutive pages (cf. also Leonidova 1977: 76):

(22a) I dobavi(P,A), sled kato pomālča(P,A) njakoe vreme: ...
   'Then he added, after he had been silent for a while: ...

(22b) Njakoe vreme i dvamata mālčaxa(I,A), posle Em-em ka-
   za(P,A): ...
   'For a while both were silent, then Em-Em said: ...'
The normal Russian translation of an imperfective aorist is an imperfective preterite:

(23) Doktor Xaralampi ... igra(I,A) do kāsno na karti ... i 
spa(I,A) do deset sutztinta. Toj se izležava(I,A) dálgo,v 
krevata, stana(P,A) bavno.  
'Doktor Xaralampi played cards till late at night and 
slept till ten o'clock A.M. He lay in bed for a long 
time, <and then> got up slowly.'  
(Elin Pelin, quoted in Maslov 1981: 250)

(23') Doktor Xaralampi igra(I) dopozdna v karty i spa(I) 
segodnja do 10 č. utra. On dolgo ležal(I) v krovati, 
vstal(P) medlenno.  
(Maslov's translation)

Leonidova (1977: 76) reports that in the Russian translation of 
Vazov's novel Pod igoto, only one imperfective aorist of the 
delimitative type has been rendered with a perfective verb: 
leža(I,A) 'lay' has been translated with the perdurative pro-
cedural proležal(P). The standard translation of an imperfec-
tive aorist is an imperfective preterite.30 On the other hand, 
three Bulgarian delimitative proceduralas have been rendered 
with an imperfective preterite, too (op.cit., p. 79).

Thus, delimitative sentences normally contain an imper-
fective verb in Russian; the delimitative and perdurative per-
fective proceduralas have as limited application as they do in 
Bulgarian. The outer bound is expressed by a temporal adver-
bial, or sometimes by the discourse context only, but it is 
still existent. Bondarko (1983b: 80) is therefore not right in 
claiming that the type dolgo guljal(I) 'walked for a long time' 
is connected with non-boundedness ("svjazan s nepredel'nost'ju 
ila nedostignutost'ju predela"), and poguljal(P) časa dva 
'walked for some two hours' with an "external (temporal) lim-
it". In both instances the bound is equally effective; dolgo 
guljal(I) is a bounded expression (VP) though it contains an 
imperfective verb, and though the temporal adverbial is less 
precise than časa dva is.31
In various languages we must distinguish between durational adverbials like 'for a long time', 'for two hours', on the one hand, and such as 'in two hours', on the other. The former are typically attached to non-bounded expressions so as to form bounded, delimitative expressions; only if there are ready-made delimitative verbs or verb forms, as in Bulgarian, can "for"-type adverbials be connected with bounded expressions. "In"-type adverbials are attached to bounded telic expressions, and only further specify their boundedness, indicating how long time the accomplishment took (E. Andersson 1977: 118ff.); they are never independent bounds.32

Besides delimitative and perdurative procedurals, there are also some other perfectives in Bulgarian that can take their duration specification without the preposition za 'in' (Maslov 1959: 225-226). The most important are prekaram(P) 'to spend, to undergo', spra(P) (se) 'to stop, to stay', ostana(P) 'to stay, to remain', prodalza(P) 'to continue', and zadarnza(P) 'to keep':

(24) Ocite mu namerixa(P,A) malkata Cvetina kastica ... i dalgo se sprjaza(P,A) tam.

'His eyes found Cveti's little house and remained on it for a long time.'

(Elin Pelin, quoted in Maslov 1959: 225)

Perfective verbs of this kind obviously represent the nested structure B(O) by virtue of their lexical meanings, without any prefix or other formal marker.33 There are, however, more than one possibility of applying boundedness to such notions as "remaining", "staying", and "keeping", so all these verbs also have other interpretations that are not nested but correspond to simple events (cf. 3.3.1 on ostana). On the other hand, perfectives with a different lexical semantics can occasionally receive a delimitative interpretation, too (Maslov 1959: 226, where the example is taken from):

(25) ... vljazoxa(P,A) v stajata si ... poglednaxa(P,A) se ...
pritisnaxa(P,A) se ... i se celunaxa(P,A) dâlgo i nenasitno.
'They went into their room, looked at each other, pressed themselves to each other, and kissed long and avidly.'
(Georgi Karaslavov)

As Maslov points out, se celuvaxa(I,A) dâlgo would here mean that there were several kisses, whereas (25) means that a single long kiss took place (see 3.2.5 on aorists expressing limited repetition).

Since delimitative expressions denote bounded situations, they are often used between normal perfective aorists to place a segment of a process or state in a series of events (Galton 1976: 123, 155; Maslov 1980: 56, 1981: 250). B(O)-type situations participate in the natural progression of time, as defined in 2.2.3. Compare the following sentences:

(26a) *Tja speše(I,I) i započna(P,A) da raboti(I).
(26b) ?Tja spa(I,A) i započna(P,A) da raboti(I).
'She slept and began working.'

(27a) *Tja speše(I,I) edin čas i započna(P,A) da raboti(I).
(27b) Tja spa(I,A) edin čas i započna(P,A) da raboti(I).
'She slept for an hour and began working.'

The imperfective verb spja(I) has to be in the aorist in order to participate in the succession of events. Sentence (26b) is nevertheless dubious because some type of adverbial is needed to clarify the succession — dva časa, as in (27b), or posle 'then': ...i posle započna... '...and then began...'. But (26b) is far more acceptable, at any rate, than (26a).

Maslov (1981: 250) emphasizes that when there are more than one imperfective aorists, they do not, however, express successive but simultaneous situations:

(28) I ne se vârna(P,A). Xodi(I,A) toj ot grad v grad, dâlgo nosi(I,A) čirâškata prestilka, spa(I,A) po golite dâski
na rabotilnicite, gladuvâ(I,A) i naj-posle se izmâkna (P,A) s profesija v života.

'And he did not come back. He walked from town to town, wore an apprentice's apron for a long time, slept on the bare boards of workshops, starved, and finally reappeared with a profession in the world.'

(Krum Velkov, quoted in Maslov, ibid.; the accent signs are original)

Delimitative procedurals seem to behave in a similar fashion:

(29) Posedjâxa(P,A) malko, poprikazvâxa(P,A), posmjâxa(P,A) se i si otidoxa(P,A).

'They sat for a while, talked and laughed, and went away.'

(Stankov 1980: 60)34

On the other hand, courses of events that are to some extent analogous with that in (28) can be expressed using only one imperfective aorist and putting the following verbs in the imperfective imperfect:

(30) Toj xodi(I,A) cjal den. Slizaše(I,I) v dâlboki dolove, vârveše(I,I) pod klomite na stâri buki i stâri dâbove...

'He walked for the whole day. He descended to deep valleys, walked under the branches of old beeches and old oaks.'

(Jordan Jovkov, quoted in Stankov 1966: 94)

Perhaps in (28) all the different situations are viewed as parallel, whereas in (30) the imperfects only further explain the one situation denoted by the aorist. Sometimes a sentence containing an imperfective verb in the aorist can be further specified with another sentence containing the same verb in the imperfect (for examples, see Maslov 1959: 262).

Discussing the example (11a) in 3.2.1, we noted that tja peeše(I,I) pesen tri minuti only has a habitual reading, viz. 'she used to sing a song for three minutes' (with veče 'al-
ready' it could also mean 'she had been singing the song for three minutes', but I leave this reading aside). The problem is that, at first sight, the aspectual structure of this sentence is B(O(O(X))), which should be equivalent to B(O) insofar as boundedness is concerned. Hence, we have two problems: (i) why cannot an imperfective imperfect be used in a delimitative expression even when the temporal limit is expressed by an adverbial bound; (ii) where does the habitual reading of tja *peeše pesen tri minuti* come from? The latter problem will be discussed in 3.2.5, but solving problem (i) now will contribute also to its solution.

We can first hypothesize that in Bulgarian, the aspectual value of the aorist / imperfect layer has to agree with those of the outer layers; if the sentence is delimitative, an aorist must be used though the boundedness is expressed by the discourse context, and possibly by an adverbial; and this really seems to be a valid rule for the most part. But Maslov (1959: 261-262) has found several examples that do not conform to this general rule (cf. also Stankov 1966: 166), e.g.:

(31) Toj si pijna(P,A) oště njakolko pâti od šišteto v disagi-te, i negovata kahugerska duša be se osvobodila(P) ot černoto raso, koeto taž dâlgo ja pokrivaše(I,I).

"He drank some more times from the bottle <he had in> the (saddle)bag, and his monk soul was <now> liberated from the black cassock that had so long *covered* it." 35

(Elin Pelin, quoted in Maslov 1959: 262)

This kind of imperfect describes the state of affairs (cf. 3.3.1) prevailing at a particular moment rather than putting a bounded segment of an open situation in a narrated sequence of events. According to Maslov, "when the imperfect is used <in such a context>, the narrative, as it were, stops in its continuous flow, stops in order to examine the situation at hand" (p. 262, my transl.). This is of course a typical property of the imperfective imperfect in general, but it is harder to explain why "stopping to examine" sometimes tolerates an expression of temporal limit. According to Maslov, in most in-
stances the imperfect used with such an adverbial bound is just one among several consecutive imperfects describing a state of affairs. Perhaps this type is closest to the type exemplified by (30), where the first verb is in the aorist but the remaining ones can then be in the imperfect; the bounding function of the adverb is weakened in such a context. At any rate, the use of an adverbial bound with an imperfect seems to require a wider context: *Tja peeše(I,I) pesen tri minuti* is not acceptable as such, except for the habitual reading.

3.2.3: Digression on biaspectual verbs. In some instances, what seems to be an imperfective aorist is in fact a biaspectual verb, used in the aorist and to be interpreted as a perfective. This is most obvious with such verbs as *objadvam* (P&I) 'to have dinner', *organiziram* (P&I) 'to organize', *obrazuvam* (P&I) 'to form', whose lexical biaspectuality is generally acknowledged. In sentence (32), the aorist *objadvax* clearly has a perfective interpretation:

(32) Dvamata objadvaxa(P&I,A) i izljazoxa(P,A) zaedno ot stola.
    'They ate dinner and went together out of the canteen.'
    (from a textbook)

There are also some primary imperfectives which have a perfective interpretation in certain contexts; among the most common are *pija* 'to drink', *jam* 'to eat', and *piša* 'to write' (Ivančev 1971: 166-171; Maslov 1981: 198), e.g.:

(33) Tvārde mnogo jadox <aorist>.
    'I ate too much.'

The aorist is not necessary for the perfective interpretation to be realized. Stankov (1980: 8) gives such examples as *piši štom pristigneš* (P) 'write when you have arrived'; *šte pija edna čaša čaj* 'I'll have a cup of tea'; *sled kato jadše, izlez* 'when you have eaten, go out'. Andrejčin (1938: 16) contrasts the
following Bulgarian and Polish sentences:

(34a) šte ti piša pismo vednaga.
(34b) Napisz(P) do ciebie list natychmiast.
      'I'll write you a letter immediately.'

(35a) Tuk, na xladinka, iskam da pija edna čaška.
      (Jordan Jovkov)
(35b) Tutaj w chłodzie chciałbym wypić(P) jeden kieliszek.
      'Here in the coolness I'd like to have a drink.'

It is not entirely clear just under what conditions such verbs can replace their perfective counterparts izjam(P), izpija(P), napiša(P) etc. Sometimes the perfective verb may not cover the whole range of meanings the imperfective does. Only piša, for instance, can be used in the meanings 'to enlist' and 'to give a mark (to a pupil)' (for other examples, see Maslov 1981: 198; cf. also Maslov 1959: 269). Sometimes the use of the derived perfective seems to be limited by the referential properties of the direct object, as in the contrast of izjadox(P,A) zaxarta 'I ate the sugar' vs. jadox(I,A) zaxar 'I ate (some) sugar' (Stankov 1984: 204); and when the direct object of a transitive verb is entirely omitted, the perfective can seldom be used. The problem is further complicated by the fact that just primary imperfectives are often used to denote isolated events in what is traditionally called their "generalized-factual" or "simple denotation" function (see 3.3.2). To distinguish those instances from genuine biaspectual cases may not always be easy.

The verb imam(I) 'to have' (and its negative form njamam) is normally imperfective, but with certain objects it can -- just as the English have -- receive a perfective interpretation as well. In 2.1.1 we noted that nowadays it is, however, seldom used in the aorist, and that in this respect it is beginning to resemble sām 'to be'. There are more examples of its aorist in a little older sources, in Pod igoto, for instance:
(36) Šte vidim posle kakvo vlijanie imà(I,A) taja srešta za nego...
'We shall see later what effect this meeting had on him.'

(37) Bože moj, kak nemà(I,A) žalost taja žena!
'Good God, didn't that woman have any pity!'

Here is a newer example -- written by a linguist, to be sure:

(38) Predi godini Radio Sofija imà(I,A) xubavata ideja da vnesë(P) svežest v rubrikata si "Rodna reč zwähliva".
'A few years ago Radio Sofia had the good idea of enlivening its program "The Sonorous Mother Tongue".'
(Xristo Părvev)

Another example:

(39) Prof. Romanski imà(I,A) edno u dovletvorenje: kato ekspert po problemite na Dobrudža toj učastvuuva(P&I,A) v bālgarskata delegacija, kojato izrabitì(P,A) i podpisa(P,A) Krajovskata spogodba prez 1940 g.
'Professor Romanski obtained one satisfaction: as an expert in the problems of Dobrudža, he participated in the Bulgarian delegation which prepared and signed the Krajov Agreement in 1940.'
(Petăr Dinekov)

In this sentence, all the four verb forms denote bounded events. Imam is lexically imperfective, but in this sense ('obtain') it counts as a perfective. Učastuvam 'to participate' is lexically biaspectual; the aorist reveals its perfective side.

When the accent sign is missing in a written text, the aorist of imam cannot be recognized for sure in the first person singular or in the plural:

(40) - I az imax(I,A?) edna srešta s baj Ganja - obadi(P,A) se Kol' o, - v Drezden.
"I, too, met Baj Gan’o (had a meeting with Baj Gan’o)," said Kol’o, "in Dresden."
(Aleko Konstantinov)

Moga 'can' is a verb in whose forms aspectual and modal meanings are intertwined in a most intriguing fashion. Môžex <imperfect> da dojda means either 'I could come' or 'I could have come' (see 4.1); the aorist možax da dojda means 'I managed to come, I was able/allowed to come (on a particular occasion)'. The aorist is used particularly often with negation:

(41) ... kučeto ... dušeše(I,I) vâzduxa, obače vjatârât idvâše (I,I) ot protivopolozhata strana i to ne moža da dолови(P) mirizmata na taraleža.
'The dog was sniffing the air, but the wind was blowing from the opposite direction, and the dog couldn’t catch the hedgehog’s smell.'
(Jordan Radičkov)

Notice, incidentally, that English likewise distinguishes "general ability or permission in the past" from "ability or permission on a particular occasion": could can only be used in the former meaning. In negative sentences this difference disappears in English (could not can refer to a particular occasion, as in the translation of (41) above) but is preserved in Bulgarian.

The aorist možax and one interpretation of the future šte moga correspond to forms of the perfective verb smoč’ in Russian (Maslov 1981: 198-199). The Russian smoč’, too, is used especially in negative sentences (Forsyth 1970: 54). Here is an example of the translation equivalence, from Russian to Bulgarian:

(42a) I èto gosudarstvo duxa ... ne smogli(P) pobedit’(P) čužezemnye zavoevateli.
(42b) I čuždite zavoevateli ne možaxa <aorist> da pobedjat(P) tazi dâržava na duxa ...
'And foreign conquerors could not defeat this realm of the spirit.'
(from a bilingual book jacket)

Because Bulgarian has an aorist, there is less need for a lexically perfective counterpart of moga. The Russian ne smogli(P) exactly corresponds to the Bulgarian ne možaxa. This shows the close connection between the aorist and the perfective, and especially between aspect and time reference, since it is reference to a particular occasion that a bounded form of moga / moć' is primarily needed for.

Galton (1976: 158) has not fully understood this perfective force of the aorist. He tries to explain ne mogoše <aorist> ga iscieliti 'they could not heal him' in Matthew XVII:16 of Vuk and Daničić's Serbo-Croatian Bible as follows: "...the inability to cure is projected against the limited period when the sufferer was brought to the disciples." So he tries to bring mogoše into line with delimitative imperfective aorists, but it would be more correct to consider the Serbo-Croatian moci biaspectral, to a certain extent at least. The aorist is also used in the corresponding verse in Old Church Slavonic and in Modern Bulgarian:

(43a) i privěš(P,A) i kъ učenikomъ tvoimъ, i ne mogę <aorist> ego isceliti(P).
(Codex Marianus)

(43b) I dovedox(P,A) go pri Tvoite učenici no te ne možaxa <aorist> da go izceljat(P).
'I brought him to your disciples, but they could not heal him.' (English translation according to the New International Version)

The meaning is that the disciples did not succeed in curing the epileptic boy when they tried to; reference is made to this particular occasion, not to a "limited period".
3.2.4: O(B) -- habitual events. Sentence (12) illustrated a typical use of the perfective imperfect: it expresses an event that was habitually repeated. The aspectual structure is O(B), since each occurrence of the event is a bounded situation, but the fact of its occurring regularly is an open situation. As in the imperfective aorist, the aorist / imperfect opposition represents an outer, the perfective / imperfective opposition an inner layer. The perfective imperfect is commonly found in certain subordinate clauses only; in main clauses we find an imperfective imperfect, as sentence (12) already showed. Some further examples:

(44) I kato si legnexme(P,I) večer da spim(I), toj započvaše (I,I): -- Znaeš(I) li kolko e xubav Pirin!
'And every night when we went to bed, he began: "Do you know how beautiful the Pirin <mountains> are?"
("Spomeni za Vapcarov", in Vapcarov's Izbrani tvorbi, Sofija 1976)

(45) ... vseki pát, kogato izlezexme(P,I) na poljana, viždaxme(I,I) napređ i vdjasno pločite ot pokrivite na párvoto selo i vseki pát te idexa(I,I) po-blizko.
'... and every time when we came out <of the forest> on a meadow, we saw slates of the roofs of the first village ahead and on the right, and every time they drew nearer.'
(Anton Dončev)

(46) Pčelata ne običaše(I,I) brămbarite, te bjaxa(I) kato naemni rabotnici, rabotexa(I,I) prez kup za groš, kolkoto oprashaexa(P,I), dva pāti poveče stāpkuva(I,I) s krakata si.
'The bee didn't like the beetles. They were like hired hands, working slapdash: no matter how much they pollinated, twice more they crushed under their feet.'
(Jordan Radičkov)

A perfective imperfect denoting repetition is normally used in subordinate clauses of time or condition, i.e., precisely in
those contexts in which a perfective imperfect denoting past future occurs, owing to the neutralization of the feature <FUT> in such sentences (see 2.4.1). Expressions such as kogato izlezexme(P,I) 'when we came out' are therefore ambiguous, but they are disambiguated by the tense of the main clause.

The perfective imperfect that is used after dokato to enforce the 'until' reading on it (see 2.4.3) remains unaffected in habitual sentences:

(47) Toj se vslušvaše(I,I) v stâpkite im, dokato zaglâxnena (P,I) v noštta.
    'He would listen closely to their steps until they died away in the night.'
    (Stojan Daskalov, quoted in Maslov 1959: 271 and 1981: 252)

The same holds true for the perfective present, used as an alternative of the perfective imperfect:

(48) Dokato se izčerpi <perfective present> zapasât ot turski vâzklicatelni, taraležât uspjavaše(I,I) da nameri(P) prolokata v ogradata ...
    'Before the supply of Turkish exclamations was exhausted, the hedgehog <always> managed to find the slit in the fence.'
    (Jordan Radičkov)

This means that the four translations of 'we had to wait until the teacher came' given in 2.4.3, viz. nie trjabvaše(I,I) da čakame(I) dokato prepodavateljat dojdeše(P,I) / ne dojdeše(P,I) / dojde(P) / ne dojde(P), can all have both a single-event and a habitual reading. Because the imperfect trjabvaše(I,I) also represents an aoristic meaning (cf. 4.1), it does not disambiguate the sentence.

According to Maslov (1959: 272), the perfective imperfect expressing habituality can always be replaced by an imperfective imperfect. The difference is mainly stylistic, the perfective being more "plastic". I think that this stylistic distinc-
tion, if it exists, cannot be very great since the combination "perfective imperfect in the subordinate clause -- imperfective imperfect in the main clause" is so common that it seems difficult to assign any marked status to it. There may also be some clause types in which the imperfective cannot be substituted for the perfective. Using the imperfective idvaše(I,I) 'came' in our example 'we had to wait until the teacher came' should disambiguate it in favor of the habitual reading, but not all informants accept the following as grammatical:

(49) ?Nie trjabvaše(I,I) da čakame(I), dokato prepodavateljat ne idvaše(I,I).
    'We <always> had to wait until the teacher came.'

Notice that without the negative particle ne the imperfective certainly cannot be substituted for the perfective, for the imperfective would assign the 'while' reading to dokato (cf. 2.4.3).

The perfective imperfect does not denote just any kind of habituality, but only habituality of the nested O(B) type. If the repeated situation is in itself open, an imperfective imperfect must of course be used even in a subordinate clause:

(50) Kogato se xranexme(I,I), na obštata trapeza slagaxme(I,I) vsičko, koeto ni izpraštaha(I,I) otvăn.
    'When we ate, we used to put on the common table everything they sent us from outside <the prison>.'
    (source as in (44) above)

Here the perfective imperfect se naxranexme would mean 'had eaten', which would not make sense.

As our model requires, the perfective present is used to express present habituality in precisely those contexts in which the perfective imperfect is used to denote past habituality. Compare the following:

(51a) Kakvoto rešeš(P,I), go osaštěstvjavaše(I,I).
    'What (s)he decided, (s)he <always> realized.'
(51b) Kakvoto reši <perfective present>, go osaštestvjava <imperfective present>.
'What (s)he decides, (s)he realizes.'

In these examples the subordinate clause happens to be a relative clause. In subsection 2.4.1 we noted that the neutralization of <FUT> is often expanded to identifying (restrictive) relative clauses, especially to those used absolutely (without a correlate) or with a non-specific correlate. The habitual perfective present and imperfect follow the example of their futural counterparts in this respect. Here are some interesting examples with the quantifiers vsičko 'all', 'everything', and vseki 'every(body)'.

(52) Satirata ni e(I) v strašna kriza — vsičko, što napišeme(P), izliza(I).
'Our satire is in terrible crisis — everything we write is published.'
(Radoj Ralin)

(53) Vsčiko ... e napisano(P) tolkova razbiraemo, če vseki, kajo go pročete(P), mu stava(I) jasno za kakvo stava duma.
'Everything is written so comprehensibly that everybody who reads it understands what it is about.'
(Pogled)

(54) Vseki, kajo mineše(P,I) ottam, nevolno se pospiraše (I,I), poglezdaše(I,I) i radostno se usmirevaše(I,I).
'Everybody who passed that way couldn't help stopping for a while, looking <at it>, and smiling with delight.'
(Jordan Jovkov, quoted in Andrejčin 1938: 41)

This kind of perfective present or imperfect can be readily replaced with an imperfective; sentences (55a) and (55b) can be substituted for (51a) and (51b), respectively:

(55a) Kakvoto rešavaše(I,I), go osaštestvjavaše(I,I).
(55b) Kakvoto rešava(I), go osaštestjava(I).\textsuperscript{39}

In an isolated main clause, a perfective present or imperfect is ungrammatical. Sometimes they can be used in a chain of main clauses; Maslov (1959: 271) calls this the "iterative chain type" ("kratno-cepnyj tip"). I refrain from quoting Kristo Botev's "Xadži Dimitar", which is the standard example, containing such perfective presents in several stanzas. In Stankov's books we find more modern examples, e.g.:

(56) A pāk az živeja(I,I), taka da se kaže(P), s všichki tezi sābitija. Sābudja(P) se noštem, a v glavata mi vse tova ... Zapaljaja(P) cigara, podpra(P) se na vāzglavnicata i prodalžavam(I) da si mislia(I).

'But I live, so to say, with all these events. I wake in the night, and it's still all in my head ... I light a cigarette, lean on the pillow, and continue to think.'
(Dimitar Angelov, quoted in Stankov 1966: 35)

(57) Po cjal den ne se pribira(I) -- sutrin izleze(P), večer se vārne(P).

'During all the day (s)he doesn't come home -- (s)he goes out in the morning and comes back in the evening.'
(Stankov 1976d: 31)

In contrast with subordinate clauses, in main clauses perfective presents and imperfects are stylistically marked. Moreover, the perfective imperfect seems to be very rare in such a context nowadays; perfective presents are somewhat easier to find:

(58) Drug kritik pāk vzeme(P) i napiše(P) takiva vālnuvašti i mnogoobeštavašti dumai za njakoj si poet ili beletrist, če prosto ne ti se iska(I) da povjarvaš(P).

'Another critic writes such exciting and promising words about some poet or writer that you simply can't believe it.'
(Septemvri)
(59) Poslepisat e nešto, koeto ja se pročete(P) ot čitatelja, ja ne se pročete(P).

'The epilogue is something the reader either reads or doesn't read.'

(Jordan Radičkov)

In (59), the perfective presents are actually in a relative clause, but the meaning is slightly different from that of the relative-clause examples given above. In (51) through (54), there is quantification involved, whereas in (59) the NP containing the relative clause has no referent at all, being a complement of 'to be'.

It is well-known that the Slavic languages differ as regards the possibility of using perfective forms in main clauses to express habitual events. East Slavic and Polish are similar to Bulgarian; in Czech, Slovak, Sorbian, and Slovene, the use of perfectives is quite normal and stylistically unmarked; Macedonian tends towards the former, Serbo-Croatian towards the latter group (Mønnesland 1984: 61ff.; Ivančev 1971: 20-22). Both systems are equally natural, because in the aspectual structure O(B) the outer openness can be expressed either by using an imperfective form or by letting the present tense, adverbials, and discourse context act as openers.

Those Slavic languages which allow habitual perfective presents also allow perfectives in the historical present when a single event is referred to (Galton 1976: 97-103; Mønnesland 1984: 64). "The pf. present is used as a historic present in eastern Macedonian and western Bulgarian dialects, but not in the respective standard languages" (Mønnesland, ibid.). Mixalaki Georgiev was a Bulgarian writer in whose works this usage can be found (Andrejčin 1938: 31; Stankov 1969: 33-34). The interesting thing is that in Russian (Forsyth 1970: 181-182) and Bulgarian the perfective present can be used in the praesens historicum to denote a past habitual event, so that single events are referred to with imperfectives, but habitual ones with perfectives! At least in Bulgarian this can be explained by pointing out that the habitual historical presents are in fact perfective presents of the type dealt with above, used as
historical presents. In the following Maslov's (1981: 247) example, the difference between historical and non-historical habitual present does not seem to be very clear-cut:

(60) Dnes ne varvševše(I,I) ... Izgārmjac(P,A) si patronitē. Raniš(P) go prokletija mu zaek, povleče(P) si krakata, zabuta(P) se v xrastalaka i go njama(I) nikakāv.
'Today things didn't go well. I shot all my cartridges out. You wound the damned hare, it takes to flight, hides in the bushes, and is nowhere to be found.'
(Elin Pelin)

We noted above that in habitual sentences, subordinate clauses may contain perfective presents or imperfects, whereas the main clause contains an imperfective verb in the stylistically unmarked case. The Bulgarian imperfective can express the nested O(B) structure (habitual event) besides the normal O interpretation (state or process). As regards the source of the nested interpretation, three alternatives can be distinguished:

(i) Sometimes only the context indicates that the O(B) interpretation is meant:

(61) Prez ljatoto stavac(I,I) vseki den v šest časa.
'In summer I woke up every day at six o'clock.'

By itself, stavac(I) 'to stand up; to become; to happen' does not exclude a single-process reading.

(ii) If the perfective denotes an inherently bounded process, the corresponding imperfective (if not used in the historical present) must denote a habitual event (see 3.1.3 and 3.2.1). Our standard example was namiram(I) 'to find', except for its abstract interpretation ('to regard something as'). A large group are the secondary imperfectives derived from punctual perfectives by replacing the punctual suffix -n- with the imperfectivizing -v-, such as tropna(P) → tropvac(I) 'to rap, to knock' and migna(P) → migvac(I) 'to wink'.

(iii) The napisvac group of imperfectives, introduced in 2.5.3, contains verbs which lack continuous reading. Their
raison d'âtre is to express $O(B)$, in accordance with their derivational history:

$$\text{piša}(I) \rightarrow \text{napiša}(P) \rightarrow \text{napsvam}(I) \ 'to \ write'$$

$$\begin{align*}
O(X) & \quad B(X) & \quad O(B(X)) \\
O & \quad B & \quad O(B)
\end{align*}$$

An example from Dimităr Dimov:

(62) Negova veličestvo prodâlžavaše(I,I) da kara(I) lokomotovi i da smajva(I) čuždestrannite učeni sâs znanija za pope-rudi i redki rastenija, za koito pročitaše(I,I) nabârzo v dvorcovata biblioteka predi audiencijata.

'His Majesty still used to drive locomotives and to amaze foreign scientists with his knowledge of butterflies and rare plants, about which he would hastily read in the palace library before the audience.'

The existence of a primary imperfective counterpart of a perfective verb means that the secondary imperfective only has the habitual interpretation. If the secondary imperfective also had an ordinary process or state reading, we would not consider the primary imperfective a true aspectual counterpart of the perfective, so the previous sentence in fact follows from the very definition of the napsvam type. But it is important to note that the primary imperfective is not deprived of the habitual interpretation, either. First, it can denote a habitual process, something the secondary imperfective cannot do. If it was my habit in summer to read some pages of a certain Russian book every day, this can be reported as follows:

(63) Prez ljatoto četjâx(I,I) vseki den edna ruska kniga.

'In summer I read <some pages of> a Russian book every day.'

Second, četjâx(I,I) can also be used to express a habitual event, just as pročitâx(I,I):
(64a) Prez ljatoto četjex(I,I) vseki den po edna ruska kniga.
(64b) Prez ljatoto pročitax(I,I) vseki den po edna ruska kniga.
   'In summer I read a Russian book every day' (i.e., a whole book every day).

So, a primary imperfective can express a habitual event even when there is a secondary imperfective specialized for that function, but this can never be the sole function of the primary one. The O(B) reading is marginally possible in (63), too, but it is pragmatically implausible because the lack of the distributive preposition po would suggest that I read through the same book every day. This behavior is more conceivable when we are dealing with a love letter, for instance:

(65a) Vseki den Ivan četeše(I,I) cjaloto pismo.
(65b) Vseki den Ivan pročitaše(I,I) cjaloto pismo.
   'Every day Ivan read the whole letter.'

To sum up, the semantics of the napisvam type is very similar to the semantics of the perfective present napiša(P) and perfective imperfect napišex(P,I) when the latter are used in their habitual interpretation. The main difference lies in the syntactic distribution of these forms:

**FORMS SPECIALIZED FOR EXPRESSING O(B)**

<table>
<thead>
<tr>
<th></th>
<th>subordinate clauses of time or condition; certain relative clauses</th>
<th>other clauses</th>
</tr>
</thead>
<tbody>
<tr>
<td>present</td>
<td>napiša(P)</td>
<td>napisvam(I)</td>
</tr>
<tr>
<td>preterite</td>
<td>napišex(P,I)</td>
<td>napisvax(I,I)</td>
</tr>
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Of course it should be borne in mind that the forms in the left column are also used with a future and past future interpretation, respectively, as was explained in section 2.4.1; and the forms in the right column have some non-habitual interpreta-
tions, mentioned in 2.5.3.

Svetomir Ivančev's (1971, 1976a) original theory of aspectuality in Slavic contains the idea that there are two types of imperfective verbs. An imperfective verb of type 1 only has non-continuous use ("neaktualna upotreba") and represents the same "complex" meaning as its perfective counterpart -- "complexity" here equals to "totality" (cf. 1.4.4). A type 2 imperfective has both habitual and continuous ("aktualna") use and is negatively marked with respect to "complexity". The napisvam imperfectives represent type 1, but for the most part types 1 and 2 are represented by one and the same imperfective verb. Analogously, there are also two types of imperfects. I think that the model of aspectual nesting can shed more light on Ivančev's observations. The idea of layers explains why imperfectives of type 1 can be "complex" (i.e., denote totality) and yet imperfective. Ivančev (1971: 42) writes himself: "I do not regard these verbs <of type 1> as perfective (in the grammatical sense of the word), but only emphasize that they are complex as regards their Aktionsart" (my translation). "Aktionsart" here corresponds to our "aspectual character", and indeed the inner boundedness of the napisvam verbs is part of their lexical meaning. But the model of aspectual nesting makes a further generalization by allowing the inner boundedness to be expressed grammatically, too, as in the perfective presents and imperfects in Bulgarian.

3.2.5: More layers, the alternation principle, and layer shift. Rule (i) of semantic simplification, given in 3.2.1, says that if two adjacent layers in the aspectual structure of a sentence have the same value of aspectuality (i.e., both are B or both are O), they are aspectually equivalent to a single layer with that value. This means that in all nested aspectual structures we have to take into account the values B and O must alternate:

...B(O)(B(O)...)

I call this the alternation principle.
But clearly two B's or two O's count as one only if they are not semantically independent, i.e., if the outer bound (or opener) only further specifies the kind of boundedness (openess) already expressed by the inner bound (opener). I assume that when there are two independent (incompatible) bounds or openers, the resulting sentence -- if it is grammatical in the language in question -- must contain an intervening covert layer. That is to say, if B' and B" are two incompatible bounds, and O' and O" are two incompatible openers, the following conversion rules hold:

(a) B' (B" -> B' (O(B")
(b) O' (O" -> O' (B(O")

(right parentheses are added accordingly)

I am aware of no instance of the first rule in Bulgarian. In Lindstedt (1984: 33) I have discussed such English sentences as

(66) The sheriff of Nottingham jailed Robin Hood for four years.
(Dowty 1972: 24)

The relevant reading is the habitual interpretation: during a period of four years there were several attempts of imprisonment. The VP jailed Robin Hood denotes a bounded situation (accomplishment), and for four years is a bound, too, but the two B's are incompatible since in English the duration of an accomplishment must be expressed with the preposition in. Hence, an additional O-layer is inserted and we obtain the correct structure B(O(B)). The iterative reading of the combination "bounded VP" + "for-type adverbial" comes out as a specific case of the alternation principle and no special rules of semantic interpretation, as proposed by Verkuyl (1972: 116), are needed for this case alone.

Rule (b) is more relevant to Bulgarian. Consider the following sentences (Stankov 1980: 80):
(67) Toj često leži(I) s časove.
    'He often lies\textsuperscript{43} for hours <on end>.'

(68) Sutrin se namiram(I) v kasti.
    'In the morning I am <always> at home.'

Here we have to do with open situations that are habitually repeated. The adverbs često 'often' and sutrin 'every morning' are openers. Because they presuppose repetition, they are incompatible with the continuous imperfectives leža 'to lie' and namiram se 'to be (somewhere), to be situated'. But the sentences also contain a covert B-layer.\textsuperscript{44} Sentence (67) implies that "he" also stands up every now and then at least, so every instance of lying is bounded. Sentence (68) is slightly more complicated since it is true even if I never go out, though it could then of course violate conversational maxims. It says that for every morning, there exists a situation of my being home such that the situation is simultaneous with that morning; some or possibly all such situations may be the same situation, i.e., I may not always go out between mornings. The intervening B-layers must perhaps be considered more potential than actual in sentences of this type.

Heinämäki (1984: 167) argues that multiple iteration does not always require alternation of boundedness and openness. Her example looks like this:

(69) Moses often found water in various areas.

She comments on it as follows (ibid.): "Moses found water' denotes an open situation: no bound is placed on the amount of water. The situation is quantified by often, which still leaves the situation open, since no limit is put on the period within which the frequent water-finding took place. Finally, this situation is quantified by the phrase in various areas, which also leaves the expression denoting an open situation." Now, sentence (69) in fact has several readings; but if often and in various areas are not understood to have different scopes, they are certainly not incompatible openers. As to the aspectual
value of Moses found water, I would rather say that it denotes a bounded situation. No bound is placed on the amount of water, to be sure, but the very action of finding must be considered inherently bounded in time -- it does not have duration. Notice, however, that I do not use the term "bound" in exactly the same sense as Heinämäki does. In her view, there is a bound only if it is syntactically expressed; a bound can be neither "inherent" nor "covert". Her analyses are closer to the structures of sentences, whereas mine also attempt to schematically describe their denotata. Hence there is no real contradiction.

Up till now, all our examples of aspectual nesting with overt layers have been of the types B(O) and O(B). But there are also some structures in Bulgarian for which the analysis B(O(B)) is plausible. First of all, if an imperfective verb expressing the structure O(B) (a verb of the napisvam type, for instance), is used in the aorist, we would naturally expect the resulting structure to be B(O(B)), i.e., a limited series of repeated events. Aorists of this kind are indeed used often when an event is repeated a limited number of times:

(70) Na dva pâti majka i minavâ(I,A) kraj neja.
'Two times her mother passed her.'
(Georgi Karaslavov, quoted in Maslov 1981: 250; the accent sign is original)

(71) Tozi pât sklonât mu se vidja(P,A) bezkrajno strâmen i dâlâg, na njakolko pâti se spira(I,A), dokato go izkačva-šie(I,I), za da si poeme(P) dâx.
'This time the slope appeared to it extremely steep and long; climbing up, it stopped several times to take breath.'
(Jordan Radičkov)

We will return to such examples in subsection 3.3.3 below. Slightly more problematic are examples of this type:
(72) Minalata godina toj često se napiva(I,A).
'Last year he often got drunk.'
(Ivančev 1971: 133-134)

(73) Kato stavà(I,A) sutrin ot legloto, Van’o se izmivà(I,A), napisvà(I,A) ostanalite ot predišnija den domašni upraž-nenija, pročità(I,A) ošte po vednàž urocite si i čak sled tova zakusvà(I,A).
'Every morning, having gotten out of bed, Van’o washed, did the homework left from the previous day, read his lessons once more, and only then had breakfast.'
(Hult 1981: 152)

In such sentences there apparently must be a layer of non-bounded habituality -- even frequency adverbials like često 'often' and ponjakoga 'sometimes' are possible, although they are usually ungrammatical with aorists. According to Ivančev (ibid.), the aorist can be used because there is a hierarchically higher adverbial which gives the period we are talking about, such as minalata godina 'last year' in (72). Such a period is sometimes given by the mere context; with Hult's constructed example we can compare the following sentence from Emil Manov, quoted in Stankov (1966: 128):

(74) Živjajc(I,A) napálno normalno. Pravix(I,A) opisanija na starini i gi podreždaxc(I,A?) v muzeja. Iznasjajc(I,A?) lekcii za drevnoto minalo na Filipopolis pred plovdivski-te esnafi. Četjajc(I,II) večer na majka si.
'I lived wholly normally. I made descriptions of antiques and arranged them in the museum. I delivered lectures about the past of Philippopolis for the philistines of Plovdiv. I read <aloud> to my mother in the evenings.'

The case in point is pravix(I,A) 'made', for it is the O(B) interpretation of pravja(I) 'to do, to make' that is relevant here. Podreždax and iznasjajx have a habitual interpretation, too, but it is not entirely sure that they are meant to be aorists (they might be imperfects).
The problem with (72) through (74) is that the adverbials or discourse contexts giving the topic period in them are not clear bounds — it would be strained to claim that in (72) there is a limited series of intoxications, stretched from January 1st to December 31st. Moreover, imperfects would be grammatical in all these sentences — an imperfect četljaj(I,I) is indeed used in (74) after the aorists. It seems that the only limit the aorists places on the habits in these sentences is the idea that certain habits used to obtain but are no longer in force. An imperfect would not necessarily imply that the habits no longer prevail (cf. 2.2.2). As živjaj(I,A) in (74) shows, this special interpretation of the imperfective aorist is not confined to O(B)-type imperfectives.

Another type of a possible B(O(B)) structure can be assigned to the so-called distributive procedurals (Ivančev 1971: 208-218):

(75) Decata počupixa(P,A) vsički činii.
'The children broke all the plates (one after another).'
(Maslov 1981: 113)

(76) Pojavixa(P,A) se i drugi nasekomi, zapodskačaxa(P,A) po cvetjata, peperudi vzexa(P,A) da se gonjat(I) iz tjaj, njakolko brambana sâsto navlžajoxa(P,A) v gradinata.
'There appeared still other insects, which began to jump on the flowers, butterflies began to chase each other in them, and some beetles entered the garden, too.'
(Jordan Radičkov)

Such procedurals are common in Slavic. They must be used with plural objects or, if intransitive, with plural subjects. The action they denote is directed to (performed by) every item of the set denoted by the object or subject, one after another, till the action has embraces them all and becomes exhausted. Note, however, that if we want to describe such verbs as instances of B(O(B)), we must assign two layers to the verb’s aspectual character, instead of one\textsuperscript{46}; and B(O(B)) is certainly not the only plausible structure then since, after all, the
size of the object or subject set has placed an inherent upper limit for the activity from the beginning. Perhaps \( B(X(B)) \) would therefore be a better approximation. Then we ought to allow \( X \) to appear outside the innermost layer, but it would still be expressed by the verb's inherent character.

Yet another kind of \( B(O(B)) \) structure can be postulated in certain negated sentences. As noted in 3.2.2, "for"-type duration adverbials cannot be attached to perfective aorists or to perfective verbs in general, with the exception of delimitative and per durative procedurals and some other semantically parallel perfectives. But such adverbials can nevertheless be used if a perfective aorist (or an aorist of a biaaspectual verb, as in this example) is negated:

(77) Vārmnax(P,A) se u nas i dālgo ne možax da zaspja(P) ot vălnenie.
'I returned to our place, and for a long time I couldn't <aorist> get to sleep because of my excitement.'
(from a textbook)

In such sentences, an imperfective imperfect is more often used (Maslov 1959: 226-227). The following sentences are both grammatical:

(78a) Dālgo nikoj ne mu se obaždaše(I,I).
(78b) Dālgo nikoj ne mu se obadi(P,A).
'For a long time nobody answered him.'

Sentence (78a) is the more common variant. My informants tend to prefer (78b) in contexts where it is known that an answer was to be expected (cf. 3.3.2 on the specificity and expectedness associated with the perfective). As for the use of duration adverbials in (77) and (78b), it is obviously due to the fact that the non-occurrence of an event can be conceived of as an open situation, if it is related to an interval and not to a particular occasion. The adverbial bound can be attached to a bounded verb form because the negation functions as an intermediate opener. So, these sentences are instances of \( B(O(B)) \),
though the openness of the middle layer is of a somewhat special type.

Finally, we must account for the fact that sentences like (11a) and (11b) only have a habitual interpretation. I repeat them here for convenience:

(79) Tja peeše(I,I) pesenta tri minuti.
     'She used to sing the song for three minutes.'

(80) Tja peeše(I,I) pesenta za tri minuti.
     'She used to sing the song in three minutes.'

Likewise, the following must be interpreted as a habitual:

(81) Četjajmex(I,I) knigi ot dva do četiri časa.
     'We used to read books from two to four o'clock.'

(A single instance of such activity would of course be reported as četoxme(I,A) knigi ot dva do četiri časa.)

Take first (79) and (81). Formally, their structure seems to be $B(O(O(X)))$, where the $O$'s come from the imperfect tense and the imperfective aspect, and $B$ is the bounding adverbial. This should be equal to $B(O)$, but it is not, as there usually must be agreement between the adverbial layer and the aorist / imperfect layer (see 3.2.2). The correct structure seems to be $O(B(O))$: the open activity of singing / reading is first bounded and only thereafter opened into habituality. This cannot be explained without a layer shift: the adverbial has skipped over the imperfect layer. Here is a literary example of a similar sentence:

(82) Tja otivaše(I,I) bavno do pātnata porta, podpiraše(I,I) se na pleta do neja i dālgo, tāzno i vtoračeno se vziraše (I,I) v tāmnija brjag na krajbrežnite vārbi.
     'She used to go slowly to the road gate, lean upon the fence beside it, and sadly and fixedly look at the dark bank with riverside willows for a long time.'

(Georgi Karaslavov, quoted in Stankov 1966: 127)
Sentence (80) can be explained in a parallel fashion. The outermost bound *za tri minuti* is incompatible with the open layers of the imperfect and the imperfective; it is an "in"-type adverbial that requires a bounded telic expression which it could further specify. Now, the relevant interpretation of the imperfective verb *peja* is here $O(B(X)) = O(B)$ -- as noted in 3.2.4, primary imperfectives can have a habitual-event interpretation, too. The primary structure of the whole sentence is therefore $B(O(O(B))) = B(O(B))$; through layer shift we then obtain $O(B(B)) = O(B)$.

If used extensively, the notion of layer shift would be completely *ad hoc*. It is important that it be only postulated for clearly specified syntactic structures. It may well be the case that there is only one type of layer shift in Bulgarian: the adverbial layer can skip inwards until it finds a layer it is compatible with. A similar phenomenon can also be found in Russian. It is often claimed (in Šeljakin 1983: 28, for instance) that an adverbial like *vdrug* 'suddenly' can never be combined with the imperfective. Yet it is possible to say:

(83) Inogda on vdrug načinal(I) drožat’(I) ot straxa.
"Sometimes he suddenly began to tremble with fear."
(Mustajoki & Pirinen 1979: 23)

*Načinal* has the aspectual structure $O(B)$, and the momentaneous adverb *vdrug* agrees with the *inner* layer.

If, however, there are more types of layer shift in Slavic, the model of aspectual nesting should be developed in such a way that the layers are conceived of as operators, each having a *scope* of its own. Then we could distinguish between wide-scope and narrow-scope adverbials, and also account for the fact that the aspectual position of the negation in sentences like (77) and (78) corresponds to its logical scope -- *ne* does not negate the durational adverbials in them.48
3.2.6: The two aspect oppositions of Bulgarian. It is worthwhile now to recapitulate the main results of this study as regards the relationship between the two oppositions perfective / imperfective and aorist / imperfect. We have arrived at the conclusion that they are both aspect oppositions. While we have thus provided support for the "aspectual" theory of the aorist and imperfect, we have also shown that the major ideas of the "temporal" or "chronological" theory -- especially the parallelism between the imperfect and the present tense -- can be derived from the aspectual theory. The present and the imperfect are in fact aspectually equal (see 2.6 and 3.1.5).

The traditional Bulgarian names of the aorist and imperfect are fully justified. The aorist is called minalo sváršeno vreme 'past completed tense' and the imperfect minalo nesváršeno vreme 'past uncompleted tense', just as the perfective and imperfective aspect are called svářenijat víd and nesváršenijat víd, respectively. These are all suitable terms, if "completed" is understood as "bounded" (rather than "finished"). Yet, Andrejčin (1938: 38) and later Bulgarian grammarians have always emphasized the distinction between "temporal" and "aspectual" completedness in order to explain why there are perfective imperfects and imperfective aorists (cf. e.g. Dejanova 1966: 23ff., and Stankov 1980: 16). Stankov (1980: 27, footnote 53) even presumes that if the aorist were aspectually equal to the perfective, imperfective aorists should denote completed actions; but of course it is not necessary to assume that the aorist somehow cancels the imperfective.

Tommola (1984) has recently put forward a model whereby the aorist expresses "totality" and the perfective "boundedness". I have already argued (in section 2.6) that no clear distinction can be drawn between these two notions. (Even if it were possible, the features ought to be assigned to the aorist and perfective in the reverse order, because the aorist is more often associated only with the outer, "quantitative" layers of aspectuality than the perfective is.) Tommola's solution does not show the hierarchy of grammemes in a feature combination like "-totality, +boundedness", which he assigns to the perfective imperfect. But insofar as his primary source of Bulgarian
data has been my Master's thesis, I may not be entirely free from guilt as regards the flaws in his model.

The model of aspectual nesting explains one interpretation of the perfective imperfect and present, and one of the imperfective aorist. This model has not been devised only to explain these Bulgarian verb forms; it also accounts for other complex aspectual structures -- in Bulgarian as well as in other languages (Lindstedt 1984). The aorist / imperfect opposition is an "outer", the perfective / imperfective opposition an "inner" opposition in nested structures. This is in accordance with the fact that the latter opposition is expressed with formal means belonging more to word formation than to inflection proper (3.1.4), and that, on the other hand, the aorist and imperfect are clearly inflectional categories.

The Bulgarian perfective present and perfective imperfect are used for two main purposes:

1: to denote habitual events as a nested structure O(B) in subordinate clauses of time or condition, and in some relative clauses lacking a specific correlate; also to express habitual events in two or more coordinate clauses in a stylistically marked way;

2: to express future and past future time reference in the same types of subordinate clauses (see 2.4.1 and 2.4.3).

In addition, the perfective imperfect is used

3: to denote unreal events in subordinate clauses of condition (see 4.1 on the modal imperfect).

Notice that case 2 is a consequence of the neutralization of the feature <FUT>, so the present and imperfect need not be perfective to receive a futural interpretation -- the neutralization only explains why they can be. In the same vein, an imperfect need not be perfective to be modal.

The imperfective aorist is used:
1: to express a temporal bound placed on an open situation, in the nested structure \( B(O) \); sometimes also to express a temporal bound on a series of repeated events, in the nested structure \( B(O(B)) \);

2: to denote events which are isolated from any course of events, or which do not produce a change in their settings. This point has not yet been discussed; it will be the topic of section 3.3.

Remember also that some lexically imperfective verbs may receive a perfective interpretation in certain contexts or in some of their more specific meanings, so their aorists are not really imperfective (see 3.2.3 above).

Although this study has not made much use of the notions "marked" and "unmarked", it deserves to be mentioned that the two aspect oppositions of Bulgarian are usually considered to differ as regards markedness. The imperfect is said to be marked with respect to the aorist, whereas the perfective is traditionally held to be marked with respect to the imperfective (Maslov 1959: 274; Aronson 1967: 86; Comrie 1976: 119-120). The markedness of the imperfect is understandable, because its time reference scheme is more complex than that of the aorist, and because non-present situations are typically bounded rather than open (cf. 3.1.5). But the theory of markedness requires that if a language makes use of only three of the four possible combinations of the values of two binary features, the lacking fourth combination must be the doubly marked one (Waugh 1979: 312-314). A phoneme paradigm like /p/ - /b/ - /pʰ/, for instance, is possible, but the series /p/ - /b/ - /bʰ/ is not. Yet, in the Macedonian standard language the perfective imperfect is a normal form, whereas the imperfective aorist is only marginal (Koneski 1980: 31). I venture to assume that in Bulgarian, too, it is the imperfective aorist whose position in the system is the least established. 49 This could explain why some primary imperfectives are losing the aorist / imperfect opposition (see 2.1.1), and why the stress shift is becoming obsolete although it is the only way of unambiguously
marking the aorist in the productive third conjugation which mainly contains imperfectives (cf. 1.5.2).

3.3 Event and Its Setting

3.3.1: Event as a change in the world. In subsection 3.1.2, a denotative aspect theory was outlined according to which perfective verbs denote events, and imperfective verbs open situations, i.e. processes and states. More generally, we can speak of bounded and non-bounded sentences, denoting events and open situations, respectively, for the model of aspectual nesting showed that the sentence-level value of aspectuality is not determined by the aspect of the verb alone. In this section I will discuss some cases in which the imperfective aspect is used in a sentence that denotes a bounded situation, even though no inner layer of O can be reasonably assigned to that sentence. These cases have traditionally been explained either in terms of markedness, neutralization, and "aspectual competition", or by postulating a special function (interpretation) for the imperfective, viz. the "generalized-factual meaning" (Russian "obščefakčičeskoe" or "obobščeno-faktičeskoe značenie"). I shall try to explain them here by further explicating the notion of event.

In human ontology, the world consists of objects that have certain properties, are in certain states, participate in certain processes, and stand in certain relations to each other. Properties, states, processes, and relations are all open situations, and they are often collectively referred to as "states" because they involve no change. This sense of the term "state" is wider than we have been accustomed to in this study: although states, as defined in 3.1.2, do cover properties and relations, they have been distinguished from processes. To avoid terminological confusion, I will, for the most part, continue to speak of "open situations" in this broader sense.

Processes are still somewhat of a problem, however. We
know that some of them are telic and therefore at least heading for a change, if not necessarily involving a change; but since they are not "complete" changes, this difficulty can perhaps be overlooked. A more serious problem is that there is something happening in every process (ex definitione), and happening always seems to imply some kind of change -- motion, for instance, means change of position. But we can now bootstrap our conceptual system by recognizing that "change" is not a unitary concept but a telic pair of notions: there are open gradual changes that may eventually lead up to the completion of the corresponding definitive changes. At a particular moment we can say that an object that has been moving has moved from point A to point B. Events can now be regarded as changes, but only in the latter sense.

Psycholinguistic models based on the distinction between "states" (i.e., open situations) and events qua changes of "states" have been put forward by Miller and Johnson-Laird (1976: 84-90), Clark and Clark (1977: 539-540; 1978: 250), and Givón (1979: 334-335). Miller and Johnson-Laird correctly emphasize that only those changes are events that are conceptualized as such: "It seems obvious that with events, even more than with concrete objects, a person's perception is strongly influenced by his set: by what he is doing, what he expects, what he is attending to ... we might speculate that sensory changes are perceived as events when they contain information needed to update the conceptual representation of the world" (pp. 88 and 89; my emphasis).

Östen Dahl's (1977) constructional hypothesis is based on the application of a similar idea to the study of discourse. A declarative discourse is interpreted as "an instruction to construct a picture or model of something in the world" (p. 148). First, an initial situation is constructed, consisting of elements and their states and relations; this is done by means of "static" instructions. Then, "dynamic" instructions, describing events, can change this situation into another situation, which can be further specified with static instructions, or changed again with a dynamic one. Static and dynamic instructions both add to the listener's knowledge, but in differ-
ent fashions: the former simply complete the situation model
the listener has constructed, whereas the latter update it by
replacing some parts with new ones.

Because the term "situation" is often used in aspectology
to refer to the denotatum of a single sentence (see 3.1.1), it
is better to say that the producer (and, concomitantly, the
comprehender) of a discourse first constructs or presupposes an
initial state of affairs, a particular state of the discourse
world, and then changes it into another state of affairs, which
can be further changed, and so on. This model is primarily
applicable to narrative discourses. Now, imperfective verbs,
and non-bounded expressions in general, are used to describe
the state of affairs at a particular point; hence we can say
that a state of affairs is a set of states and processes (with
their participants). On the other hand, perfective verbs, and
bounded expressions in general, denote events that change
states of affairs into other states of affairs. An event is a
change in the discourse world. A state of affairs in which an
event occurs, and which is thus changed, is the setting of that
event.

In an earlier work, Dahl (1974) tried to explicate the
notion of perfectivity in terms of von Wright's "logic of
change" (cf. also Dowty 1972: 39ff.). The basic idea is that a
perfective verb always implies a transition from state p to
state not-\( p \), or vice versa. The problems with this model are
(i) that such a transition must always be momentaneous, and
(ii) that sometimes it is difficult to say how the state of an
entity has been changed.

All accomplishments and other developments are clearly
events that are not momentaneous but are still referred to with
perfectives or other bounded expressions. Delimitative expres-
sions, as defined in 3.2.2, are likewise bounded and do not
denote momentaneous events, either (the latter problem is ac-
knowledge by Dahl himself on p. 34). Dahl and Karlsson (1976:
33) therefore suggest that an event, rather than being literal-
ly momentaneous, is conceived of as an unanalyzed transition
from one state to another. This may seem dangerously circular
as a definition of the perfective aspect -- an event is con-
ceived of as momentaneous just if it is referred to with a perfective -- but I think it does make sense in the framework of the constructional hypothesis. An event is a transition between two successive states of the discourse world; but these two states of affairs need not, and usually do not, obtain at immediately successive points of time. The "real" world is of course always in one state or another, but the discourse world is reassembled only at certain intervals.

As to the other problem, there are at least three types of bounded expressions for which it is difficult to say how the state of an object is changed in them. Delimitative expressions are again one group: they denote an open situation that prevailed for a certain time, but did not necessarily change anything -- pospaz(P,A) dva časa 'I slept for two hours' does not necessarily mean that I became brisker. Another type consists of such punctuals as migna(P) 'to wink' or skokna(P) 'to jump': it would be strained to claim that when I have winked once, the state of my body is no longer the same it was before the wink. These two groups are acknowledged as problems also by Dahl himself. There is yet a third type -- consider the perfective verb ostana 'to stay, to remain'52:

(84a) Te zaminaxa(P,A), a az ostanax(P,A) ošte da letuvam(I).
    'They left, but I still stayed to spend the vacation.'

(84b) Čadărât ostana(P,A) vâv vlaka.
    'The umbrella was left in the train.'

(84c) Tova l ostana(P,A) v pametta.
    'It remained in her memory.'

The verb ostana(P) means precisely that the state or position of an object was not changed. In the same vein, zabravja(P) 'to forget' may report that somebody did not do something, e.g. zabravix(P,A) da dojda(P) 'I forgot to come'. I think these perfectives can be explained in the constructional framework, but only if we assume that an event is a change in the total state of affairs, not necessarily in some of the participants
of the event itself. The notion of "staying" or "remaining" implies that something did not change in spite of the fact that the total state of affairs changed. In (84a), the other people went away; in (84b), the owner of the umbrella left the train; in (84c), most things were forgotten as they always are, but at least one thing made an exception. And if I forgot to do something, I was not changed myself, but the world changed at the moment from which it could be said that I ought to have done that something, i.e. at the moment when the obligation or need to do something had been in force till it became too late to do what should have been done.

As for delimitatives and migna(P)-type punctuals, it is slightly more difficult to explain what kind of change in the state of affairs they imply. Because delimitative situations are bounded from both ends, we can perhaps say that they imply two transitions and, consequently, three states of affairs. Pospax dva časa implies that there were three states of the discourse world: in the first, I was not sleeping yet; in the second, I was; and in the third, I was not sleeping any longer. The migna type is the minimal case: the two transitions are so near to each other that there is no conceptually distinct intermediate state of affairs. Because the second transition reverses the first, the preceding and following state of affairs are identical; but because there nevertheless occurs a change (even two of them), punctuals of this kind count as events.53

The distinction between states of affairs and events qua changes in them is essential for understanding the functions of the Bulgarian aorist and imperfect in a narrative discourse (the same functions are carried by the perfective and imperfective preterite, respectively, in most other Slavic languages). Stankov (1966: 87) noted that the aorist denotes a "new moment in the development of the plot line" ("nov moment v razvitieto na sjužetnata linija"), bringing about a new state in the doer of the action, its object, or in the overall setting ("obstanovka"). Forsyth (1970: 10) writes: "Each perfective verb denotes an action which is a new event, bringing about, or at least marking the transition to, a new state of affairs, and
thus carrying the narrative forward."

The most detailed overview of the aspectral structure of Slavic narrative discourse is due to Maslov (1980). He distinguishes between the two axes of sequentiosity and simultaneity: the course of events proceeds along the axis of sequentiosity, whereas the description of "situations" (i.e. states of affairs) makes use of the axis of simultaneity. Maslov formulates the functions of the aorist and imperfect as a Latin slogan: *aoristo procedit, imperfecto insistit narratio.* There is also the possibility of regression (or rather flashback), often (but by no means always) expressed with pluperfects.

This much is certainly necessary to a proper understanding of how aspect functions in discourse, especially in narrative. But there have also been attempts to reduce the explanation of aspect wholly to descriptions of discourse structure. One example of this line of thought is Hopper (1979: 217): "I view aspectral distinctions such as that of French as deriving from discourse, rather than as ready-made devices 'deployed' in discourse because they happen already to exist" (orig. emphasis). Hopper's key notions are *foregrounding* and *backgrounding*, associated with the perfective and imperfective aspect, respectively: foregrounded events are sequenced and carry the main line of the narrative, whereas backgrounded material consists of more descriptive pieces. A similar analysis of the French past tenses in terms of *Vordergrund* and *Hintergrund* was already proposed in Weinrich's (1964) important monograph, not mentioned by Hopper. The distinction has been further developed in Hopper and Thompson's (1980) "transitivity theory", in which perfectivity is linked with various other grammatical and semantic parameters, all thought to be positively correlated in the world's languages. Wallace (1982) and Chvany (forthcoming) propose the notion of salience, derived from the study of perception, as an important characteristic of the perfective. But Chvany also tries to show that grounding (i.e., foregrounding or backgrounding) is not mechanistically linked with verbal aspect, although a strong correlation certainly exists. Unintentionally she also shows that the whole notion of grounding is still too ill-defined to serve as a useful basis for aspect
studies.

The problem with grounding is, in my view, that either it is defined in terms of the perfective: imperfective (or aorist: imperfect) opposition itself, in which case it cannot explain that opposition; or else it must be defined independently and, owing to the lack of criteria, rather vaguely and impressionistically. This is not to say that the phenomenon does not exist -- only that it is still as much a problem as aspect is. Moreover, the distinction between foreground and background is hardly applicable to non-narrative discourse or to the child's early utterances, which nevertheless contain aspectual distinctions (DeLancey 1982: 179-180). Aspect encodes the difference between states of affairs (as sets of processes and states) and events that change them; this distinction is naturally reflected in the structure of narrative discourse, but aspect does not primarily exist for discourse organization.

3.3.2: The conative imperfective and the imperfective of isolated event. Imperfectives like these have always been hard nuts to crack in Slavic aspectology:

(85) Dnes učiteljat me nakazva(I,A).
    'Today the teacher punished me.'
    (Stankov 1980: 97)

(86) Kato malāk vednāž padax(I,A) ot tova dārvo.
    'As a child, I once fell from that tree.'
    (Ibid.)

(87) Viždali(I) li ste tozi film?
    'Have you seen this movie?'

(88) Koj e pisal(I) tova pismo?
    'Who wrote <lit. has written> this letter?'

Such imperfectives clearly refer to single bounded events. They are generally explained as instances of neutralization,
due to the unmarked nature of the imperfective aspect. Forsyth (1970: 82) calls this function of the imperfective "simple denotation": "the imperfective is used as a neutral referent <sic> empty of aspectual nuance." But all explanations based on markedness and neutralization are dangerously circular: the concept of neutralization is invoked in just those instances that would otherwise contradict the general rule posited. It is a stronger hypothesis to presume that these sentences exhibit a positive meaning or interpretation of the imperfective. This is what is done in Soviet aspectology where, since Maslov's (1959) study of aspect in Bulgarian, a special "generalized-factual" function of the imperfective is distinguished, this being opposed to the "concrete-factual" function of the perfective. (Traditionally these are "particular aspect meanings", see 1.4.5.) "Factuality" here means approximately the same as "reference to an event"; the idea is that an event can be referred to either concretely or in a generalized manner -- with a perfective or imperfective, respectively.

Now, my hypothesis is that a "generalized event" is essentially an event isolated from any setting, that is to say an event not considered as a transition from a particular state of affairs into another (cf. Stankov 1980: 97; Rassudova 1982: 42ff.; Bondarko 1983b: 184-186). The Slavic perfective can still be defined as a grammeme indicating that an event is referred to, but there are both a broader and narrower concept of event. The broader concept includes all bounded situations, the narrower one only those which are conceived of as occurring in a particular setting.

As narratives are usually not concerned with isolated events, the difference between the broader and narrower concept manifests itself most clearly in dialogues and other non-narrative discourses. The narrower concept is never sufficient as the sole definition of the perfective, since in most cases imperfectives of isolated event -- as I will call them -- could be replaced with perfectives without a substantial change in the meaning of the sentence (this is called "aspectual competition", Russ. konkurencija vidov). Moreover, this type of imperfective does not have such a wide application in all the Slavic
languages as it has, say, in Russian, so taken as a whole, Slavic still prefers the broader concept of event. We can say that the definitional component of the perfective is "bounded situation", whereas the associated component is "occurring in a particular setting". The definitional component is common to all perfective-like grammemes in different languages (cf. Dahl 1984), whereas the associated one is only an idiosyncrasy of Slavic (cf. Maslov 1973: 82 and Bondarko 1983b: 117) -- it is not even shared by the aorist of (Standard) Bulgarian, as will be shown below.

To a certain extent, the defining and associated component of the perfective correspond to what are called defining and characteristic features, respectively, in prototype semantics (see Clark & Clark 1977: 464-467, and the primary literature cited there), for the associated component gives the range of the variation in the use of the concept, just as the characteristic features of the word bird explain why some birds are more typical birds than others. But whereas even a most untypical bird can be called "bird" provided that it satisfies the defining features of that concept, it is not the case that all isolated events can always be referred to with perfectives. This is because an isolated event cannot really be considered a concrete entity on a par with events occurring in their settings. A real-world event is never isolated, it always occurs in some setting. An isolated event is rather a type whose tokens the concrete events are, or a variable ranging over a set of concrete events. Hence the use of the perfective could sometimes be interpreted as a reference to a specific event, which would contradict the meaning of the existential perfect, for instance. This is why the imperfective is the standard choice in questions like (87) above.

It must be emphasized that my "imperfective of isolated event" is not meant to comprise everything that has traditionally been subsumed under "generalized-factual function". I propose also to distinguish an "imperfective of reversed event", to be discussed in subsection 3.3.3 below. And I exclude those allegedly "generalized-factual" imperfectives that do not denote events at all. Stankov (1980: 69), for instance,
claims this to be an instance of the "generalized-factual" meaning:

(89) V tozi apartament noštem ne može(I) da se spi(I) ot šum.
    'In this apartment you cannot sleep at night because of
    the noise.'

But se spi is an entirely normal imperfective form, which is here used in its habitual interpretation, as all imperfectives can be. The indefinite-personal construction with se contributes to the air of generalization, too. The following Stankov's (1966: 119-120) example is equally dubious:

(90) Az tārsix(I,A) za moite deca kunduri, no ne namerix(P,A)
    nikakvi.
    'I looked for shoes for my children, but didn't find
    any.'
    (Dimităr Dimov)

Tārsix is in fact an ordinary delimitative imperfective aorist (see 3.2.2).

Conative imperfectives must be distinguished from the imperfective of isolated event, too. The term "conative" (going back to the imperfectum de conatu in Latin grammar, from cōnārī 'to try', cōnātus 'attempt') is used in different fashions in aspectology. It often refers to attempted but unsuccessful acts. I will, however, use the term to designate imperfectives that denote the act of attempt itself, irrespective of whether the attempt is succesful or not. Conative imperfectives are generalizations from agentive telic verbs, whose perfective aspect denotes an accomplishment, and the imperfective denotes an controlled activity aimed at the completion of that accomplishment (cf. 3.1.3). The notion of controlled attempt is then secondarily connected even to such imperfectives whose perfective counterparts are inherently bounded:

(91) -- Plati(P,A) mu čovekāt ... I sto leva bakšiš mu dava-
    še(I,I) ...
Davaše does not here denote a non-bounded activity, nor can it be explained as O(B), i.e., as a habitual act. It rather denotes an attempt to give. In this example the attempt was unsuccessful, but it need not be so for a conative imperfective to be used. Consider the following exchange:

(92) -- Kakvo šte praviš(I) v CUM?
    -- Šte kupuvam(I) fotoaparat.
    "What are you doing in CUM <a department store>?"
    "I'm going to buy a camera."

Here it is possible and even probable that the second speaker will really buy a camera. Nevertheless, the answer šte kupja(P) fotoaparat is not natural here, because the speaker is telling what he or she wants to do, and there may be no cameras to buy, after all. Compare also:

(93) Taja kapešta češma edin den trjabva(I) da ja opravjam(I).
    'I must fix that dripping tap some day.'
    (Jordan Radičkov)

The imperfective indicates that I will at least try to fix the tap.

In certain modal contexts the conative imperfective is used to distinguish deontic modality from epistemic modality and physical ability (for kinds of modality, see Palmer 1979: 2ff.). The reason is that permission and obligation are directed towards the agent's control of his or her actions, whereas probability, certainty, and ability mainly depend on things
outside volitional control. This explains the following difference (examples are from Stankov 1976d: 86):

(94a) Ne može(I) da presičate(I) ulicata na tova mjesto.
    'You are not allowed to cross the street at this place.'

(94b) Ne može(I) da presečete(P) ulicata na tova mjesto.
    'You cannot < = are not able to> cross the street at this place.'57

This difference between permission and ability must be a common Slavic feature: the Russian nel'zja 'cannot' means 'is not allowed to' when used with an imperfective main verb, and 'is not able to' when used with a perfective.58 In the following pair of examples (from op.cit., p. 85), deontic modality is contrasted not with ability but with epistemic modality, but it is still the imperfective which conveys the deontic interpretation:

(95a) Toj može(I) da ne idva(I).
    'He need not come.'

(95b) Toj može(I) da ne dojde(P).
    'He may not come.'

Conative imperfectives denote bounded situations — an attempt is an act and, therefore, an event. A mere attempt does not, however, produce a change in the world, hence it is not an event in the full sense of the word. This explains why the imperfective (and the imperfect) can be used in referring to attempts.

As for imperfectives of isolated event (whatever name is used of them), they are usually divided into at least two groups. In some instances, the information focus of the utterance falls upon some of the actants, or perhaps on a free adverbial; the imperfective verb denotes an event presupposed in that context, as in (88) above (every letter has been written by somebody). In other cases it is just the other way
round: the verb is the focused element in the utterance, as in (85), (86), and (87). Bondarko (1983b: 162ff.) calls these the "weak" and "strong" variety of the "generalized-event type" of the "generalized-factual function" (slabaja i sil'na raznovidnosti obobščennno-sobytnogo tipa obobščennno-faktičeskoj funkci). Forsyth (1970: 84) speaks of "imperfective as un-stressed copula" in the former case, but the term "copula" is not very suitable here. I will use the terms presuppositional IIE and focal IIE, where "IIE" stands for "imperfective of isolated event".

Presuppositional IIE's could be further divided into two groups. In one group of sentences, as in (88), the focal element is an interrogative word and the verb represents presupposed information, though it has not necessarily been previously mentioned in the discourse. In the other type, the imperfective is old information because it really repeats an earlier perfective; there is not necessarily an interrogative word in the utterance. This could be an example of the latter type:

(96) Zatvornikát e napisal(B) dva lozunga nad vrata na kili-jata. Pisal(I) e s ostro kamâče.
'Two slogans have been written by the prisoner above the door of the cell. <As it seems,> he wrote with a small sharp stone.'
(Večerni novini, quoted in Stankov 1976d: 54)

Actually I do not think this is an IIE at all, although Stankov presents it as an instance of aspectual competition, and although similar examples are used by Forsyth to illustrate the "imperfective as an unstressed copula" in Russian. In Slavic languages there is a tendency to connect various adverbial modifiers of manner, time, and place with the imperfective aspect if they pertain to the way of performing an activity, rather than to the way of attaining a result (insofar these can be distinguished). As noted by Dahl (1984: 13), 'he wrote the letter slowly' has to be translated in Russian as on pisal(I) pis'mo medlenno. It is, however, possible to say on napisal(P)
pis'mo bystro 'he wrote the letter fast', but it means that the result was attained quickly. It must also be borne in mind that Slavic perfective transitive verbs seldom appear without a direct object, which further explains the imperfective in (96) above.

Thus, the presuppositional IIE seems to melt away as a separate type. Examples like (96) can be explained on the basis of the process meaning of the imperfective aspect (cf. Leinonen 1982: 195). Some others seem to be instances of the conative imperfective. And in sentences like (88) (koj e pisal tova pismo?), the imperfective is a real IIE but its use is not directly motivated by the subject focus: the imperfective of isolated event must be used because the perfect here has an existential interpretation (cf. 2.3.1, and below). So, an IIE is most often a focal element in its utterance, as in (85) through (87) above, although it is not incompatible with a focus placed elsewhere, either. Therefore Hopper's (1979: 218-219) attempt to explain all IIE's as presuppositional must fail. This explanation would nicely fit his idea of the back-grounding role of the imperfective, but it is difficult to see how it applies to some classical examples he himself quotes, such as (Russ.) Vy čytali(I) "Vojnu i mir"? 'have you read "War and Peace"?' -- it is precisely the verb that the question clearly focuses upon. The same overgeneralization is repeated by Wlodarczyk (1983: 63ff.), who characterizes the imperfective as "anaphorique". She does not cite Hopper, nor does she mention Leinonen (1982: 195), who compared some IIE's to anaphorics, too, without claiming that anaphoricity would explain all "generalized-factual" imperfectives.

The existential perfect, as described in 2.3.1 and 2.3.2, is the most common form containing an IIE. Some examples, including also an existential pluperfect:

(97) Nikoj nikáde ošte ne e objasnjaval(I) ot koi vremena ta-raležat se e pristrastil(P) kām zvuka na metāl.

'Nobody has explained anywhere since what times the hedgehog has been addicted to the sound of metal.'

(Jordan Radičkov)
(98) Az sām čuvala(I), če tuk njakāde ima(I) mnogo interesna peštera.
'I have heard that somewhere here there is a very interesting cave.'
(P. Spasov, quoted in Stankov 1969: 79)

(99) Čel(I) sām tri pāti "Pod igoto".
'I have read "Pod igoto" three times.'
(Stankov 1969: 79)

(100) Irina si spomni(P,A), če sled svāršvane na gimnazijata Dinko be postāpil(P) v Školata na zapasni oficeri. No tja ne go beše viždala(I) ot togava.
'Irina remembered that having left the high school, Dinko had entered the School for Reserve Officers. But she had not seen him ever since.'
(Dimităr Dimov)

An existential perfect is typically, though not always, in the scope of negation or question. Viždam(I) 'to see' and čuvam(I) 'to hear' are some of the most common verbs used in such constructions. So, one prototypical exchange goes like this:

(101) --Viždali(I) li ste tozi film?
--Ne sām go viždala(I).
'"Have you seen this movie?"
'"No, I haven't."'

A question like 'have you (ever) been to Australia?' must be translated in Bulgarian as

(102) Poseštavala(I) li si Avstralija?61

Its perfective counterpart

(102') Posetila(P) li si Avstralija?

can be used only if some kind of resultativity is implied, e.g.
posetila li si Avstralija, če možeš da govoriš taka? 'have you been to Australia when you can talk like that?'

An existential perfect has to be imperfective because even when it denotes an event, it does not denote a concrete event in its setting but an event type whose tokens are situated somewhere in the past. The tokens can be more than one, as (99) shows. Now, in 2.3.2 we noted that at least part of resultative perfects do not refer to a specific occasion, either, so we could ask why they do not require an IIE. The answer seems to be that in the resultative perfect the event is not entirely isolated: although its setting may not be specified, the state of affairs it led to is specified -- it is the present state of affairs. In the same vein, in the resultative pluperfect the state of affairs into which the event was a transition is the state of the discourse world in the past topic period in question. Moreover, resultativity is of course strongly associated with perfectivity, even though it is not its defining feature, so it would be strange if resultative perfects were not perfective.

The difference between the existential and resultative perfect, expressed with the imperfective / perfective distinction, is very clear in the following three examples quoted by Maslov (1959: 285):

(103) -- Ti viždal(I) li si Indže, starče?
     -- De šte go vidja(P), sinko. Onzi, kojto go e vidjal(P), ne e oživjal(P).
     "Have you seen Indže, old man?"
     "Where could I see him, my son. He who has seen him has not survived."
     (Jordan Jovkov)

The question here contains a clear existential perfect, hence the imperfective. The perfect in the answer emphasizes causality and therefore resultativity: the perfective is used.

(104) -- Ami vie naistina li ste komunist? ...
     -- A vie kāde ste čuli(P) tova?
—Čuvala(I) sâm.
"But are you really a Communist?"
"Where did you hear that?" <lit. "Where have you heard that">
"I've <just> heard <it>.
"E. Manov)

With kāde ste čuli(P), the inquirer asks about the setting of the event. But the answer is intentionally evasive, and the imperfective is used.

(105) V naj-lošija slučaj toj trjabva(I) da razbere(P) kakvo e stanalo(P) s javkata, ako izobšto nešto e stavalo(I).
'In the worst case he has to find out what has happened to the secret meeting-place, if anything has happened.'
(E. Manov)

The first perfect is not (only) resultative but (also) inferential, cf. 4.3 below. The second perfect is clearly existential. It is accompanied by the adverb izobšto 'in general, at all', which often appears or at least could in principle be inserted in sentences containing negative and interrogative existential perfects. (Here it in fact stands in a subordinate clause of condition. Its contexts of use resemble the contexts in which the English any-pronouns, as opposed to some-pronouns, can be used. Notice that nešto by itself means 'something'.)

Not all cases are as clear as these, however. The existential and resultative perfect are distinct interpretational prototypes of the perfect, but they do not entirely exclude each other. It is conceivable that the speaker wants to express both the isolated nature of the event as such, and its consequences relevant at the present period. There is an area of overlap between the resultative and existential types, and in this area aspect choice is somewhat indeterminate, or conditioned by secondary factors such as the verb's lexical meaning.

(106) -- Ne me karajte(I) da se smeja(I) -- reče Manoli. -- Koga ste videli(P) nemci da uslužvat(I)?
"Don't make me laugh," said Manoli. "When have you seen Germans be helpful?"
(Dimităr Dimov)²²

Here the few informants I have asked would prefer ste viždali (I), though they do not consider Dimov's original wording incorrect, either. Perhaps the perfective is more appropriate to the "literal" reading of the sentence as a question about the time of an event (cf. (110b) below), whereas the imperfective is more natural if its communicative value as a rhetorical question is considered ('have you ever seen Germans be helpful?'). Moreover, vidja(P) is still marginally biaspectual (cf. vidi se 'it seems').

An interesting pragmatic constraint is exemplified by the following contrast:

(107) Koj e napisal(P)/pisal(I) tova pismo?
'Who wrote <lit. has written> this letter?'

(108) Koj e napisal(P)/pisal(I) "Tjutjun"?
'Who wrote <lit. has written> "Tobacco"?'

The perfective perfect must be used when the author of a well-known work of art is inquired. This is confirmed by Stankov (1980: 98), who contrasts koj e risuval(I) tazi kartina? 'who has painted this picture?' with koj e narisuval(P) Džokondata 'who has painted the "Mona Lisa"?'. The distinction certainly has to do with information structure, though in a more complex fashion than a simple given / new dichotomy is able to capture. The interrogative is of course the focus of new information in both (107) and (108), and the event of writing is treated as given, but in the Bulgarian cultural setting the event of writing "Tobacco" is more "given" than the event of writing some letter. (The examples in fact further support the view that the presuppositional IIE is not a central type, for it is the "more presupposed" event that does not tolerate imperfective reference.) Moreover, the results of writing "Tobacco" or painting "Mona Lisa" are part of the present state of the
Bulgarian / world culture, which makes the resultative perfect more natural.

Stankov (1980: 98) also points out that some imperfectives can never be used to inquire the maker of something; among these are sāzdavam(I) 'to create' and otkrivam(I) 'to discover':

(109) *Koj e otkrival(I) teorijata na otnositelnostta?
    'Who discovered the relativity theory?'

The verbs Stankov mentions are all inherently bounded. But such lexical restrictions cannot be wholly distinguished from the pragmatic constraint discussed above: the relativity theory is a well-known cultural entity, too. Leinonen (1982: 192, footnote 1) reports that the Russian sentence Kto izobretal(I) ètot pribor 'who invented this gadget?' is more acceptable if it refers to a concrete object token at hand, than if it refers to the object type as an invention.

Stankov (1976d: 52–53; 1976c: 170–171) has also pointed out that in sentences inquiring the agent, place, or time of an act, Bulgarian often prefers a perfective verb, even though Russian uses an imperfective form (the a-sentences are Russian):

(110a) Kogda vy pokupali(I) èti plastiniki?
(110b) Koga ste kupili(P) (/kupvali(I)) tezi ploči?
    'When did you buy these records?'

(111a) Gde vy brali(I) bumagu, v kakom škafu?
(111b) Otkàde ste vzeli(P) xartijata, ot koj škaf?
    'Where did you take the paper from, from what cupboard?'

According to Stankov, especially a question about the place of an act does not tolerate an imperfective verb without there appearing some expressive overtones. In fact, the perfective is not impossible in the Russian, either (Rassudova 1982: 58), so the difference between Russian and Bulgarian is only a difference of degree; yet it does need an explanation. Part of the
answer may be that because there is no distinct perfect tense in Russian, such questions are categorized as existential in order to show their perfect-like time reference, whereas in Bulgarian they can be categorized as resultative since the time reference is already shown by the perfect tense. Russian has perhaps widened the domain of the IIE so as to compensate for the loss of the perfect / preterite opposition, although not to such a degree that all resultative instances could be covered by it.\(^63\)

The IIE is not confined to the existential perfect and pluperfect. It can also be used in the aorist (and in the future, though this possibility will not be discussed\(^64\)). Such imperfective aorists have to be distinguished from the imperfective aorists representing the delimitative B(0) structure. Sentences (85) and (86) contained aorists of IIE's: \textit{Dnes učiteljat me nakazva 'today the teacher punished me'; Kato malák vednáz padx ot tova dárvo 'as a child, I once fell from that tree'}. With reference especially to the latter example, Stankov (1980: 97) writes: "sometimes in such a context, an action in the perfective aspect -- which reports its occurrence in a definite setting -- can be conceived of as an element of a series of actions in a connected narrative, whereas the imperfective aspect only reports it as a past fact" (my translation). So, also in the aorist it is possible to use the imperfective aspect when we are not referring to a concrete event connected with a specific setting. Although (85) and (86) were positive declarative sentences, such imperfective aorists are typically used in interrogative and negative sentences, which often implicate the meaning component 'in general, at all', and in answers to questions:

(112) \textit{-- Četoxte(I,A) li vestnika? -- Četox(I,A).} 
"Did you read the newspaper?" "Yes, I did."
(Thelin 1978: 46)

(113) \textit{Ami ne srešta(I,A) li nejde edno sivo tele s červen konec na šijata?}
'But didn't you meet a grey calf somewhere, with a red thread on the neck?'

(T. Vlajkov, quoted in Maslov 1959: 267)

It could now be asked how an isolated event can be referred to with an aorist when the aorist should imply reference to a specific occasion (see 2.3.2). I think we must distinguish between specificity of occasions and specificity of events. The aorist and imperfect, as opposed to the perfect, denote a situation occurring on a specific occasion; and independently from this, the imperfective can be used in the perfect and aorist to signal that the event itself was not specific, i.e., it was not connected with a specific setting. In the perfective perfect, the event becomes specific through its results, though the occasion on which it occurred remains non-specific. In the aorist of an IIE, the occasion is more or less specific, but the event itself is non-specific, in the sense that it is not part of a chain of events or its setting is underspecified otherwise. As noted by Stankov (1976d: 48), specifying adverbs tend often to be incompatible with such imperfective aorists; he contrasts decata zakusvaxa(L,A) 'the children ate <already>' with te zakusixa(P,A) predi malko 'they ate a short while ago'. This also explains the following example:

(114) -- Vižda(I,A) li se s nego sled onaja nošt?
   -- Viždax(I,A) go. Snoštī go vidjāx(P,A) tam.
   "Did you see him after that night?"
   "I did. I saw him there last night."

Galton (1976: 163), who quotes this passage from Pavel Vežinov, contends that the imperfective aorists express "limited duration" even here. But I do not think they are instances of aspectual nesting -- they rather implicate the meaning component 'at all'. The perfective aorist is then used when a specific event is introduced.

The specificity of the event expressed by a perfective aorist, as opposed to an imperfective one, is often based on the fact that the event in question was somehow expected, it
was known that it should occur. Stankov (1976d: 61-71) has extensively discussed this shade of meaning. He contrasts (on p. 70) the sentences koj stana(P,A) noštes? and koj stava(I,A) noštes?. Both can be translated as 'who got up last night?', but the perfective verb implies that the act was expected (somebody had to take the night watch, for instance). The imperfective is used if the speaker did not expect that somebody would get up, but he or she, say, heard noise at some time of the night. The same difference can sometimes also appear in the future tense (op.cit., pp. 70-71).

The imperfective aorist is a convenient form for referring to an isolated event: the aorist shows that an event is referred to, rather than an open situation, and the imperfective shows that the event in question is nevertheless an isolated one. This is why there occur such IIB's in Bulgarian that have no counterpart in, say, Russian. This is the case with the following passage from Ivan Vazov, quoted in several studies:

(115) -- Marijka kâsno li te nameri(P,A)?
  -- Koja Marijka?
  -- Kak, ne namirâ(I,A) li te tja? -- izvika Ognjanov
  smajan. -- Az ja pratic(P,A) do tebe s pismo taja zaran
  ...
  -- Ne me e namiral(I) <perfect!> nikoj ...
"'Did Marijka find you <so> late?"
"What Marijka?"
"What, didn't she find you?" cried Ognjanov astounded. "I
sent her to you with a letter this morning."
"Nobody has found me."

The Russian naxodit'(I) 'to find' cannot be used here to render
the imperfective aorist namirâ. For a precise translation, the
word voobšče 'in general, at all' should be inserted: Kak, ona
voobšče tebja ne našla(P)? 'what, didn't she find you at all?'
(Maslov 1959: 268; Leonidova 1977: 84). It should be borne in
mind, though, that Vazov made heavier use of imperfective
aorists than would be possible nowadays.

The use of the imperfective aorist to express isolated
but temporally specific events is based on a semantic difference between the perfective and aorist: both denote events, but only the former contains an associated requirement that the event be connected to a specific setting. It is interesting to note that in some Bulgarian dialects, the two oppositions perfective vs. imperfective and aorist vs. imperfect seem to have been leveled even in this respect. Dejanova (1966: 57) reports that in the Ivajlograd dialect it is possible to say ti dnes vzimaše(I,I) li aspirin? 'did you take aspirin today?' -- in the standard language, we would use the form vzima(I,A) or vzema(I,A). But the imperfective aorist cannot there be used in the delimitative sense, either: Dimče dnes speše(I,I) li? 'did Dimče sleep today?', for the standard spa(I,A).

It must be admitted that the distinction between a specific event and a specific occasion is not entirely clear-cut. At least when an event is isolated and non-specific, it is seldom necessary to express that the occasion on which it occurred was nevertheless specific. I do not think that aorists of IIE's occupy an important position in the Bulgarian verbal system, though I would hesitate to call them "marginal". The examples of such aorists are borrowed from study to study, and the few new examples often contain the verb xodja, which in fact is biaspectual, as will be shown in 3.3.3 below. Forms like namirà(I,A) in (115) are no longer natural in the modern language. It is much more common that when a perfective aorist and an IIE are contrasted, the latter is used in the perfect. This often happens in negative answers:

(116) -- Čuxte(P,A) li văprosa?
    -- Ne, ništo ne sâm čuvala(I).
    '"Did you hear the question?"
    "No, I didn't hear <lit. haven't heard> anything.'"
    (from a TV interview)

(117) -- Ti kaza(P,A) li na bašta si?
    -- Ne sâm mu kazval(I).
    '"Did you tell your father?"
"I didn't <lit. I haven't told him>."

(E. Koralov, quoted in Stankov 1976d: 69)

Stankov (1980: 70) contrasts the following two answers to the question reši(P,A) li zadačite si? 'did you solve your problems?':

(118a) Ne gi rešix(P,A).
     'I didn't.'

(118b) Ne sām gi rešaval(I).
     Lit. "I haven't solved them."

The second answer, with an imperfective perfect, means that nothing has been done in order to solve the problems, whereas (118a) only means that the solving did not succeed. (Notice that in cases like (117) and (118b) -- but not in (116) -- the conative and isolated-event interpretation of the imperfective coalesce.) With telic verbs, the perfective implies the imperfective, but not vice versa; this is why the negation of the imperfective entails the negation of the perfective -- but not vice versa.66 However, as explained in subsection 2.3.2, the difference between ne pročetox(P,A) tvojata statiža 'I didn't read your article' and ne sām čel <imperfective perfect> tvojata statiža 'I haven't read your article' is of a somewhat different order, at least when they are not answers to a question.

A perfect-tense answer to a question containing a perfective aorist is in fact so common that in the first person singular it is possible to omit the main verb. Obviously the omitted verb can be reconstructed as imperfective:

(119) -- Milke, napravi(P,A) li si palto?
     -- Ne sām, kupix(P,A) na decata ūšonki.
     '"Milka, did you make yourself a coat?"
     "I didn't, I bought overshoes for the children."

(Dimitār Dimov)
This peculiar relation between the aorist and the perfect is
due not only to the affinity of the IIE and perfect, but also
to the semantic proximity of the perfective aorist and perfect-
tive perfect outside narrative discourse (see 2.3.2). If the
aorist and the perfect are not strongly contrasted in the
question, it is understandable that a perfect can be used as a
reply to an aorist.

3.3.3: The imperfective of reversed event. The Bulgarian im-
perfective is sometimes used to express an event that was
reversed by a subsequent event which nullified results of the
former. Such imperfectives are usually put in the aorist; this
shows again that the criteria of "eventness" are looser in the
aorist than in the perfective. The use is most typical of verbs
of movement -- whether intransitive, such as vlizam(I) 'to
enter', or transitive, such as otvarjam(I) 'to open' -- which
each possess a lexical counterpart denoting the opposite move-
ment (e.g. izlizam(I) 'to go/come out', zatvarjam(I) 'to
close'; see Andrejčin 1938: 39; Maslov 1959: 266-267; Stankov
1976d: 14-15):

(121) Koj e otvarjal(I) čantata mi?
    'Who has opened my bag?'
    (Stankov, ibid.)

The sentence implies that the bag is no longer open -- somebody
has opened and then closed it. In the same vein, the aorist of
idvam(I) 'to come' often implies that somebody came and then
left again:

(122) -- Idva(I,A) li Barutčiev pri tebe? -- vnezapno popita
     (P,A) Koen.
"Did Barutčiev come to see you?" asked Koen suddenly.

(Dimitār Dimov)

It is an interesting question in what sense these kind of imperfectives "imply" the reversal of the event. There are three possibilities -- the reversal might be (i) directly asserted, (ii) entailed, or (iii) only implicated. Now, it does not seem to be directly asserted, as shown by the following example discussed by Maslov (1959: 267):


'Petko Karavelov once arrived at Stipone. He was in opposition. The district constable told him to go away.'

(G. Belev)

The imperfective aorist doxožda is used because Petko Karavelov did not stay in Stipone, but the form cannot directly assert that, because then it would be illogical to report later that he was told to leave the place. Some Russian examples quoted by Leinonen (1981: 200-201) point to a similar conclusion. On vyxodil(I) v dva časa 'he went out at two o'clock' implies that "he" has come back, but it does not assert that he came back at two o'clock -- the adverbial only pertains to the act of going out. It is also possible to say: Uxodila(I). A potom vernulas(P) ('she went out and then came back'); vernulas' emphasizes that "she" has indeed come back, but it does not amount to tautology.

These arguments showing that the meaning of reversal is not directly asserted seem to indicate that it cannot be logically entailed, either, hence it must be an implicated meaning. Forsyth's (1970: 78) term "two-way action" is therefore not always felicitous for such an imperfective, because even in movement verbs only a one-way movement is really denoted by the verb. The reversal of the event is a conventional implicature\(^6\) attached to some imperfectives.

The imperfective of reversed event is not simply a special case of the IIE, as is often presumed (in Stankov 1980: \(\))
70, and Bondarko 1983b: 170, among others). The imperfective of reversed event denotes a specific event in a specific setting; the imperfective aspect is used not because the event in question would be isolated or generalized, but because it produced no permanent change in the state of the discourse world. The choice between the different interpretations of the imperfective is often pragmatically governed:

(124a) Včera lekarjat dojdè(P,A) li?
(124b) Včera lekarjat idvà(P,A) li?
'Did the doctor come yesterday?'

According to Stankov (1980: 70-71), there is no great difference between these sentences, because the doctor is not supposed to be still here anyway. Moreover, a reversed event is sometimes expressed with a perfective aorist because the event was expected (Stankov 1980: 112-113).

Ferrand (1982) has suggested that the Russian imperfectives of reversed event are in fact perfectives, being only homonymous with the corresponding imperfective verbs. This is of course true in the sense that imperfectives of reversed event denote bounded situations, but not necessarily in the sense that they have really been lexicalized as separate perfectives. But in Bulgarian there is one imperfective verb which seems to have become biaspectual because of its use to denote a two-way movement, viz. xodja. It has two main meanings: (a) 'to go, to walk'; (b) 'to go somewhere and come back, to visit', as in xodila li si v Moskva? 'have you been to Moscow?'. In meaning (a) it is certainly imperfective, being semantically near to vârvja(I) 'to walk, to go'; but contrary to what has been presumed so far, I will argue that in meaning (b) it is in fact biaspectual, corresponding to both posetja(P) and poseštavam(I) 'to visit'.

First of all, notice that meaning (b) is not simply a two-way equivalent of (a), it is rather a two-way equivalent of otida(P) 'to go'. In fact, otivam(I) is not used to denote a reversed event in Standard Bulgarian; sentences like otivala(I) li si v Moskva?, in the meaning 'have you been to Moscow?', are
only possible in some dialects (Petar Pašov, personal communication). Ötivam(I) 'to go' and idvam(I) 'to come' behave very differently in this respect, and this must be due to the fact that the former happens to have a lexicalized "two-way" counterpart. We must distinguish two lexemes xodja in Bulgarian: an imperfective xodja₁, and a biaspectual xodja₂.

The perfective interpretation of xodja₂ is illustrated by the following sentence:

(125) Xodix(P&I,A) na kino i kupix(P,A) si sladoled.
'I went to the movies and bought icecream.'

Xodix here denotes a specific event in a certain course of events. The icecream was bought after the movies. In fact, even the return is really asserted in xodja₂:

(126) Xodi(P&I,A) li peša na Vitoša?
'Did you go to <Mount> Vitoša on foot?'

This question inquires the manner of going to Mount Vitoša and coming back from there.

Xodja₂ is biapectual rather than perfective because it has an IIE reading — xodila li si v Moskva can mean 'have you ever been to Moscow'. It also has a habitual interpretation:

(127) Decata xodjat na učilište.
'The children go to school.'
(dictionary example)

But xodja₂ does not have a process reading. It is an inherently bounded verb, whereas xodja₁ is inherently non-bounded (ateletic). Ö70

The distinction between xodja₁(I) and xodja₂(P&I) is not more mysterious than the already acknowledged distinction between ida₁, an imperfective verb meaning 'to come', and ida₂, a perfective verb meaning 'to go' (Maslov 1963: 39-42). Nowadays ida₁ is usually replaced with idvam(I), ida₂ with otida(P). Xodja₁ and xodja₂ are still both used, but vârvja(I) can often
be substituted for the former. Acknowledging the biaspectuality of \( xodja_2 \) is important in Bulgarian aspectology, because forms of \( xodja \) are often used as examples of the "generalized-factual" meaning of the imperfective. Insofar as these examples contain \( xodja_2 \), they must be considered to be beside the point; and examples with \( xodja_1 \) are none the better as they never refer to events.

In 3.2.5 we noted that imperfective aorists can sometimes be used to denote a limited number of repetitions of an event, and interpreted this as a possible instance of the aspectual structure \( B(O(B)) \). For many examples, however, a better explanation can be given in terms of the imperfective of reversed event, since an event often cannot be repeated before its results have first been nullified (cf. Maslov 1973: 80). Consider the following sentence:

(128) Na dva pâti idva(I,A) dâržavna komisija, no otkaza(P,A) da prieme(P) cexa za zavâršen.

'A state commission came twice, but it refused to accept <the construction of> the department as completed.'

(Rabotničesko delo, quoted in Galton 1976: 162)

Galton explains that the aorist is used because the writer wants to underscore that the two comings "clearly belong together". But it is not necessarily the aorist that requires an explanation -- the aorist is in fact the most important tense of "countable situations" (cf. Armstrong 1981), because only bounded events can be counted. The aorist could be interpreted as being in the scope of the counting, instead of being an expression of the finiteness of the count. In other words, the aorist does not make one package out of the repetitions but rather presents each of the counted packages. The imperfective can then be naturally interpreted as an imperfective of reversed event: for the commmission to come the second time, it had to go away first, and probably it did not remain staying the second time, either.

Aronson (1977: 11-12) discusses another passage from Rabotničesko delo:
(129) Četiri păti akademik Landau "umira(I,A)" i četiri păti nauka mu vrăста(I,A) života.71

'Academician Landau "died" four times and four times science returned life to him.'

Aronson comments on this example as follows (p. 12): "The use of the perfective (umrja, vrati) would indicate at least that Landau had finally really died the fourth time." This comment contains one lapse: vrati is a Macedonian verb, the Bulgarian form would be vârna. But the logic of the explanation itself is slightly erroneous, too: if the imperfective umira indicates that not even the last death was final, shouldn't the imperfective vrăsta mean that the fourth return of the life was likewise reversed? The motive of using the imperfective lies rather in the fact that each event of death was reversed, and that each return of the life, except the last, was nullified by the following "death". The repetition of "two-way" events can be considered complete even when the last occurrence of the event was "one-way" only. This point is illustrated by the following passage:


'Today he came at 12 o'clock. He went in and came out. He went in and came out several times.'

(from a textbook)

It is clear that the last entering or the last coming out was not reversed, because the person must have finally remained standing either inside or outside. But this is irrelevant -- the important thing is that all the other goings and comings reversed each other turn and turn about.

There may be two different types of imperfective aorists used with counting adverbials. In many instances -- perhaps the majority -- the explanation in terms of reversed events seems to be the most natural one. In other cases, the nested B(O(B)) structure might be a better description, especially with such imperfectives which are already of the O(B) type lexically:
It is not necessary that she, say, burnt the letter after every writing; perhaps she only had to try several times until she arrived at a good wording. But I do not think that the "reversal explanation" and "B(O(B)) explanation" always exclude each other: often it is possible to interpret a given sentence in both fashions, and precisely this double possibility of conceptualization may have given rise to the affinity between imperfective aorists and counting expressions.
4 TENSE AND MODALITY

4.1 The Balkan-Type Conditional

The form we have so far called the "past future" is very often used as if it were a marker of a conditional mood. In a conditional sentence, the past future is employed in the apodosis (consequence clause); the protasis (if-clause) contains an imperfect, which can also be perfective. Thus the imperfect replaces the past future in a subordinate clause when the meaning is modal, just as it does when the meaning is temporal (cf. 2.4). The conditional past future and imperfect can refer to the past, present, or future (Stankov 1969: 115; Gočab 1964 passim). Some examples from Andrejčin & al. (1977: 249, 265):

(1) Ako se obrneše(P,I), šteše da gi vidi(P). 'If (s)he turned around, (s)he would see them', or 'If (s)he had turned around, (s)he would have seen them.' // Ako imax(I,I) vreme, štjaj da dojda(P). 'If I had / had had time, I would come / would have come.' // Ako tova stanelo(P,I), rusite šteli da zagubjat(P) vojnata i balgarskijat narod štjal da ostane(P) pak pod robstvo. 'If that happened / had happened, the Russians would lose / would have lost the war, and the Bulgarian people would remain / would have remained in slavery again.'

The conditional meaning is likewise conveyed by the negative counterpart of štjaj, viz. njamaše:

(2) Ako mi kažexa(P,I), če e(I) vдовica, njamaše da povjar-vam(P). 'If I had been told she is a widow, I wouldn't
have believed it.' (Anton Dončev) // Njamaše da se učudja(P), ako vodex(I,I) tozi razgovor v koj da e magazin na stolicata, no toj se sastojat(P&I,A) v taka narečenija predstaviten firmen magazin... 'I wouldn't have wondered if I had participated in such a conversation in just any shop of the capital, but it took place in the so-called representative trademark store.' (Anteni)

Goļub (1964) has called this use of the past future (and the parallel use of the imperfect) the "conditional of the Balkan type". There are analogous constructions in Macedonian, certain Serbo-Croatian dialects, Rumanian (especially Arumanian), Modern Greek, and Albanian. Close parallels can also be found in more distant languages (Goļub 1964: 180-193; James 1982). Compare:

(3a) BULGARIAN: Ako valeše(I,I), toj šteše da ostane(P) v kasti.
(3b) ENGLISH: If it rained, he would stay home.
(3c) SWEDISH: Om det regnade, skulle han stanna hemma.
(3d) FRENCH: S'il pleuvait, il resterait à la maison.2
(3e) FINNISH: Jos sataisi, hän jäisi kotiin.

In each of these languages, the sentences alternatively express an indicative past future or a conditional present (the Bulgarian sentence also represents a conditional past). It is merely a matter of grammatical tradition that the corresponding forms in the apodoses are called "conditionals" in other languages, but "past future" in Bulgarian. The parallel between the French and Bulgarian model is especially close (cf. Mixov 1979), because French uses the imparfait in the protasis. Goļub (1964: 175-180) actually considers Balkan Romance as the most probable source of the Balkan-type conditional, but it is impossible for all the world's languages using this kind of construction (such as Sanskrit, Turkish, Garo, or Cree) to have borrowed it from Romance. There must be a universal semantic relation which explains why past futurity and conditionality are expressed by one and the same form in a wide variety of languages.3 Two
lines of explanation, which need not be mutually exclusive, have been proposed. The source of the conditionality can be sought either in the preterite or in the past future itself.

The first explanation emphasizes the connection between the features "past" and "hypothetical", both thought to be instances of "remoteness" -- temporal and modal, respectively (Lyons 1977: 818-820; Ultan 1978: 99). James (1982: 398) points out that it is, however, better to think that the modal meaning has been derived from the temporal one, than that both are derived from a unitary concept of "remoteness". This is because languages differ as regards the contexts in which a past tense (possibly a past future) with a conditional function can be used. Counterfactual conditional sentences, as in (1) through (3) above, may be a context type shared by all such forms in various languages. A somewhat less universal type is exemplified by such "optative" sentences expressing wish as iskam(I) da znaše(ε)(I,I) 'I wish you / she / he knew', and po-dobre da ne znaεx(I,I) 'it would be better if I didn't know' (Pašov 1984: 9; cf. Stankov 1966: 135; 1969: 148, 114).

Pašov's (1984: 8-9) original explanation of the connection between "past" and "hypothetical" is not based on the concept of "remoteness". He notes that "if we use the 'irrealis' 'if he knew', we have already said (or thought) 'he does not know'" (my transl.; orig. emphasis). In other words, a hypothetical sentence indirectly refers to a past utterance or thought. This idea certainly deserves to be developed.

All explanations based on some kind of connection between the past tense and the hypothetical modality do not yet explain why many languages use the past future in the apodosis. One possibility is to link this with the modal use of the ordinary future: if the future can express such modalities as inference and prediction (cf. 4.2 below), and the past tense can express hypothetical modality, a past future serves well as a conditional form (cf. James 1982: 401, footnote 4). It can also be pointed out that often (though by no means always) an indicative counterpart of a conditional sentence naturally contains an ordinary future (Pašov 1984: 8):
(4) Ako znaješ(I,I), šeši da ti kaže(P).
'If (s)he knew / had known it, (s)he would tell / would have told you.'

(4') Ako znaje(I), še ti kaže(P).
'If (s)he knows it, (s)he will tell you.'

We can now consider the alternative explanation whereby it is the past future, not the past tense in general, that is naturally connected with conditional modality. This explanation applies to fewer languages, but in several of them, such as Bulgarian, English, or French, it has the advantage of automatically explaining the protasis, too, because the future marker is excluded from certain subordinate sentences anyhow. The following two passages from Anton Dončev's *Vreme razdelno* are worth analyzing carefully:

(5) Drezite im visješe(I,I) na dripi po tjax i navjarno štjaza da se razsipat(P) na prax, ako gi dokosnetme (P,I). Alia koj smeeše(I,I) da gi dopre(P)?
'Their clothes were hanging in rags on them < = the mummies>, and would certainly have broken up into dust, if we had touched them. But who dared to touch them?'

(6) ... dadoxme(P,A) tołkova mnogo żertvi, če velikijat vezir Axmed Kjuprjuli zapovjiada(P,A) vednaga da se zakopajat(P) všički. Inače ostanalite vojski na pravovernite, kato zabeležexas(P,I) kolko narod e padnal(P), štjaza da se očajat(P).
'We suffered such heavy losses that grand vizier Ahmed Köprülü ordered for all the victims to be buried at once. Otherwise the remaining army of the faithful, seeing how many people had been killed, would have fallen into despair.'

The bold-faced verbs instantiate what Goźab (1964: 84) calls the *futurum praeteriti irreale*: their time reference is that of a past future, but in addition it is known that the events they
refer to never took place but remained hypothetical (cf. Gramatica 1983: 346-347). This is a clear transitional type, which cannot be considered purely indicative, nor purely conditional. The notion of counterfactuality, or contra-factivity, is easily attached to the past future, because we know that not all that was going to happen did happen eventually. The contra-factivity (or non-factivity) is then extended onto other temporal planes as well. Notice that the formula for the past-future time reference (E after R before S) does not require that E be placed before S, although this certainly is the preferred interpretation in the purely temporal use of this tense.

It seems best to assume that the modal value of the "Balkan conditional" is based both on the past future and on the mere "pastness", especially on the imperfect. James (1982: 399) points out that it is the imperfective past tense that typically carries the hypothetical modality in various languages. Since there are two aspect oppositions in Bulgarian, the imperfect can be used to express contra-factivity even when an event is referred to, since the boundedness is shown by the inner perfective aspect. This is a special instance of aspectual nesting, or rather aspect nested within modality.

James (1982: 387) also notes that the conditional value of the English would, formally the past tense of will, is paralleled by the "lesser epistemic certainty" expressed by the past tenses of other modals -- compare shall and should, may and might, can and could. Now, Bulgarian has a counterpart not only for will / would, but also for the pairs can / could and may / might. It was noted in 3.2.3 that just as the English could, the Bulgarian imperfect možeše⁴ can only denote a general ability, possibility, or permission extended over a period; the fact that somebody succeeded in doing something, or managed to do something, must be expressed with the aorist možâ. So, tja možeše da dojde corresponds to she could come when the latter refers to the past. But, interestingly, it also corresponds to she could come when the time reference is non-past and, just as šteše corresponds not only to would but also to would have (+ past participle), tja možeše da dojde corresponds to she could have come, too. In other words, možeše makes the
main verb non-factive or contra-factive (for these terms, see Lyons 1977: 795). The normal "Balkan conditional" of *može* is *možeše*, not *šteše da može*. Here are two examples with present time reference:

(7) Djado Galuško daš(P,A) na pogancite svoja vtori sin, Straxin. Ako me beše dal(P), sega az možeše da se värna (P) v dolinata, za da tarsja(I) novi deca za poganci.
'Old Galuško gave the heathens his second son, Straxin. Had he given me, I might now return to the valley <as a janizary> in order to seek new children for the heathens.'
(Anton Dončev)

(8) Tuk možeše da ima(I) pone svetofar.
'Here we could < = should> at least have traffic lights.'
(from television)

And two with a past time reference:

(9) Možex da gledam(I) prez prozoreca, za da mine(P) po-leko vremeto. Samo če ne mi se iskaše(I,I).
'I could have looked out of the window for time to pass more lightly. Only that I didn't feel like it.'
(Bogomil Rajnov)

(10) Smrasti(P,A) kosmatoto si čelo, ako čovek go pogledneše (P,I) v tozi mig otpred, možeše da dolovi(P) njakakvo podobie na razmisal.
'It wrinkled up its hairy forehead; if a man had looked at it from the front at that moment, he could have noticed something like a reflection.'
(Jordan Radičkov)

If the main verb is to be understood factively, the aorist *možâx* must be used:
(11) Za štastie možâx / ??možex da popitam(P) Jana i tja mi objasni(P,A) vsičko.
'Fortunately I was able to / ??could ask Jana, and she explained everything for me.'

Compare also:

(12a) ??Možâx da popitam Jana, no ne možâx da ja namerja.
'??I managed to ask Jana, but I couldn't find her.'

(12b) ??Možâx da popitam Jana, no ne možex da ja namerja.
'??I managed to ask Jana, but I couldn't find her.'

(12c) Možex da popitam Jana, no ne možâx da ja namerja.
'I could have asked Jana, but I couldn't find her.'

(12d) Možex da popitam Jana, no ne možex da ja namerja.
'I could ask Jana, but I couldn't find her.'

Sentences (12a) and (12b) are both semantically odd, if we assume that we cannot ask Jana anything unless we have first found her. The meaning of (12c) is the most straightforward: Jana could have provided the answer if I had found her, but I didn't. For (12d) to be correct, the ability to ask Jana denoted by the first clause cannot be connected with the ability to find her in the second clause: in principle nothing prevented me from asking Jana since I was, say, on good terms with her, but at that time it was not possible for me to find her. The meaning is that on the one hand I could have asked her, on the other hand I could not. (Notice that in the translations of (12b) and (12d), couldn't is a simple negation of could, but in (12a) and (12c) it means 'did not succeed in'.)

The contra-factive or non-factive meaning of možeše can be attributed to the imperfect; možeše behaves like šteše, which is the imperfect of the auxiliary šte. But the modality of the past future is not entirely irrelevant, either, because možeše can also be used as a past future, even in a main clause:
(13) Goljam efekt možeše da se postigne(P), ako E. S. saumeeše (P,I) da likvidira(P&I) bandata na njakoi si Arnautina ...

'A great effect could be attained = was going to be attained> if E. S. was able to liquidate a certain Arnautin's band.'
(Jordan Radičkov)

In its original context, (13) does not mean that there was a permanent possibility of attaining an effect every time Arnautin's band was liquidated. But it is not a counterfactual conditional sentence, either; the reference to liquidating the band and attaining an effect is only non-factive. E. S. is commissioned to find Arnautin and destroy the gang once and for all, and that event still lies in the future from a past point of view.

The verb trjabva 'must' is not used in the aorist, so a distinction analogous to možeše / možà cannot be made:

(14) Toj trjabvaše da otide(P).

'He had to go / he should have gone.'

As noted by Grozdanova (1978: 57), sentence (14) is neutral as to whether "he" actually went or not. For some reason there is no aorist that could be used to unambiguously express the factive meaning. (The reason may be partly morphological: the aorist trjàbva would be homonymous with the present, and if a stress shift were applied, the normative rule of jatovijat preglas would require the form to be trebvà.) On the other hand, it seems to me that the present meaning 'he should go' is normally expressed with the "old" conditional (cf. below): toj bi trjabvalo da otide. Perhaps the different behavior of može 'can' and trjabva 'must' is connected with the narrower field of application of the latter. What I have in mind is the fact that while there exist both "possibility" (može) and "necessity" (trjabva) in the epistemic and deontic sense, the physical "possibility", i.e. ability, has no stronger counterpart. Sentences like (11) and (12) suggest that just ability is the
focus of the aorist / imperfect distinction in može (cf. also the examples in 3.2.3).

The combination "imperfect in the protasis + past future in the apodosis" is not the only type of Balkan conditional in Bulgarian. When the past is referred to, the protasis can also contain a pluperfect:

(15) Ako beše sljazal(P), štjaxme da razberem(P), če moželo <reported imperfect> da se sleze(P).

'If you had gone down, we would have understood that it is possible to go down.'

(Anton Dončev)

This sentence exemplifies the modal possibilities inherent in the Bulgarian verb system: the pluperfect and the past future count here as contra-factive conditionals; and the reported imperfect moželo expresses surprise, reversal of a view previously held. Some more examples with a pluperfect in the protasis:

(16) No' roditelite mu ne podoziraxa(I,I) u nego čertite na pradjadoto, pàk i da bjaxa gi zabeljazali(P), njamače da im otdadat(P) nikakvo značenie. 'But the parents did not suspect the forefather's features in him, and even if they had noticed them, they would not have attached any importance to them.' (Andrey Guljaški) // I detstvoto my šteše da bade(I) suxo i skučno pri stajnija život, kojto vodeše(I,I), ako slučajno ne beše otkril(P) čuden svjat, izpàlnen s videnija. 'And his childhood would have been dull and boring because of the indoor life he led, if he had not by chance found a wonderful world full of visions.' (Andrey Guljaški) // ... ako E. S. ne bil došal(P) <reported pluperfect> sàs selskija pàdar da gi osvobodi(P), moželo <reported imperfect> i da se zajušat (P) v taja koliba ... 'If E. S. had not come with the village's field-keeper to set them free, they could have been even suffocated in that hut.' (Jordan Radičkov) //

Ako ti togava beše se vârnat(P) ili beše došal(P) da ja
vzemeš(P) pri sebe si -- njamaše da stane(P) s neja tova, koeto stana(P,A). 'If you had then returned, or had come to take her with you, what happened with her would not have happened.' (Dimităr Talev, quoted in Stankov 1969: 127)

If the past tense marker is used in a language to express the conditional, it is possible but not necessary that the language employs double past-tense marking, such as the pluperfect, in conditional sentences referring to the past (James 1982: 401 footnote 3). In English this is obligatory, but in Bulgarian optional. Notice that the pluperfect only marks the protasis as past; the apodosis can still refer to the present:

(17) -- Babo, rekox(P,A) az. -- Ako bjax umrjal(P), sega njamaše da jam(I) slânce i da pija(I) sok.
"'Granny,' I said. 'Had I died, I would not be now eating sun <here, = honey> and drinking juice.'"
(Anton Dončev)

The pluperfect also has some modal uses outside conditional expressions (Stankov 1969: 124-130). But even in conditional sentences it is not clear just when it can replace the imperfect in the protasis. The time reference must apparently be past, but this is not yet a sufficient condition. According to Mixov (1979: 34), the pluperfect corresponds to an aorist in a factive sentence. This cannot, however, be an absolute rule. Often the protasis contains a perfective imperfect which would naturally correspond to a perfective aorist in a factive sentence; the use of the pluperfect nevertheless seems to be optional only:

(18) Ako polučex(P,I) (bjax polučil(P)) pari, Štjajx da si kupja(P) sâčinenijata na Smirnenski.
'If I had gotten enough money, I would have bought the works of Smirnenski.'
(Andrejčin & al. 1977: 280)
(19) Ako razbereš(P,I) (beše razbral(P)), vednaga šteše da se namesi(P).

'Ife (s)he had understood, (s)he would have interfered at once.'

(Gerdžikov 1976: 277)

In both sources the optionality of the pluperfect is explicitly mentioned.

Informants do not agree on when the modal pluperfect can and must be used. While all accept sentences of the type (20b), judgments on the type (20a) vary:

(20a) Ako namerex(P,I) pari onzi den, štjax da ti dam(P).
(20b) Ako bjax nameril(P) <pluperfect> pari onzi den, štjax da ti dam(P).

'If I had found money the day before yesterday, I would have given it to you.'

On the other hand, it is sometimes possible to use the pluperfect even when the corresponding factive sentence would contain an imperfect:

(21) Ako imax(I,I) / bjax imal(I) pari onzi den, štjax da ti dam(P).

'If I had had money the day before yesterday, I would have given it to you.'

According to Petar Pašov (personal communication), the pluperfect emphasizes the contra-factivity more than the imperfect would. With a pluperfect it is even possible to use the past future perfect in the apodosis:

(22) Ako bjax imal(I) pari onzi den, štjax da šam ti dal(P).

'If I had had money the day before yesterday, I would have given it to you.'

Sentence (22) is nicely analogous with its English translation. But while the English sentence shows the normal way of refer-
ring to the past hypothetically, the Bulgarian sentence represents a marked structure that would probably not be used by all speakers. It seems, however, that most examples of the rare past future perfect that can be found in grammatical literature are to interpreted just modally:

(23) Do snošti štjax da sām xodil(P&I) i štjax da sām se vārnal(P) veče, ako ne bjaxa me povikali(P) po druga rabota.
'By last night I would already have gone and would have come back, if I had not been called to do something else.'
(Andrejčin & al. 1977: 250)

(24) Ako ne bjax se razboljal(P) i ne bjax zagubil(P) cjala godina, tazi prolet štjax da sām zavəršil(P) veče.
'If I had not become ill and lost a whole year, this spring I would have already finished.'
(Pašov 1976a: 193)

But notice that, at least in (23), the past future perfect could also be interpreted as the contra-factive counterpart not of the aorist, but of the pluperfect, something that cannot be directly rendered in English.8

The native Bulgarian grammatical tradition does not acknowledge the "Balkan conditional" as a separate mood, for several reason. First, all the forms in question also have purely temporal uses. Second, there is already an old conditional mood in Bulgarian, formed with the auxiliary bix and the aorist-based past participle active of the main verb. In addition, there is a rare "synthetic conditional" whose markers are identical with the imperfectivizing suffixes. The independent status of the synthetic conditional is showed by the fact that its marker can sometimes be added to a stem that is already imperfective, as in jadvam 'I would eat', otivvam <sic> 'I would go'. But since the synthetic conditional is but marginal in the modern standard language, I will not discuss it in this study. I will only say something about the relationship of the
bix-conditional and Balkan conditional.

As the Balkan conditional, the bix-conditional can likewise refer to all temporal planes — past, present, and future. It is not normally used in if-clauses; the normal type is "Balkan conditional (= imperfect, sometimes pluperfect) in the protasis" + "bix-conditional in the apodosis":

(25) ... i kako se učudil(P,A) naj-napred, kakto bix se učudil (P) az, ako mi kažexa(P,I) pri pārvata srešta s Gjulfie kakvo šte stane(P) meždu dvama ni.
'... and how he was first surprised, as I would have been surprised if somebody had said when I first met Gülfiye what would happen between the two of us.'

(Anton Dončev)

Occasionally a bix-conditional or even an indicative present is used in the protasis (cf. (53) in 4.3). At least the former type is an archaism (GoJac 1964: 146-147), though it may sometimes also be a Russism.

Andrejčin's (1938: 53) position was that the bix-conditional and the synthetic conditional are semantically clearly separate from the hypothetical imperfect and pluperfect, which should not be called "conditionals" at all. Forty-five years later, the Academic Grammar (Gramatika 1983: 371) still repeats the same opinion in its §486, written by Andrejčin: "It is not difficult to notice that forms like stjax da zamina '<I would leave>', stjax da usluža '<I would render a service>', šjax da potarsja '<I would seek>' express the action with a clear positiveness (as wholly decided and dependent only on some external conditions), whereas forms like bix zaminal, bix uslužil, bix potarsil express that the action is only envisaged as possible, but not yet as decided, and consequently dependent not only upon external conditions, but also upon the further decision of the person in question" (my transl.). However, no contrasting examples are given.

I think that the distinction proposed by Andrejčin is largely illusory in conditional sentences and other semantically hypothetical constructions. Example (25) can be compared
with the first sentence of (2) above. Andrejčin's definition would mean that there is always some degree of agentivity involved in the bix-conditional; but (25) does certainly not suggest that becoming surprised can be somehow controlled by the person in question. It is, however, possible that with an agentive verb a distinction can sometimes be drawn between the Balkan conditional and bix-conditional. Only the latter is used in such expressions as bix iskal da... 'I would like to...', where there is not necessarily any conditionality involved, the speaker only expresses his or her wish to do something. So, Andrejčin's distinction is to a certain extent valid as long as isolated agentive expressions, especially in the first person singular, are considered. This distinction can then be marginally transferred even into conditional sentences; cf.:

(26a) Ako imax(I,I) pari sega, bix ti dal(P).
(26b) Ako imax(I,I) pari sega, štjax da ti dam(P).
   'If I now had money, I would give it to you.'

Sentence (26b) may show more clearly that the speaker has indeed decided to give the money, and that it is only the external circumstances that prevent him from doing so. Compare also the following sentence, recorded by Stankov (1969: 115):

(27) Ako imax(I,I) poveče vreme, ne bix čel(I), a štjax da sām (I) v momenta na kino.
   'If I had more time, I wouldn't be reading, but I would now be at the movies.'

The bix-conditional is used with the agentive verb četa(I) 'to read', whereas sām(I) 'to be' appears in the Balkan conditional. The intended meaning might be something like 'I would not choose to read'.

All in all, the Balkan and bix-conditional cannot be assigned identical meanings, but they are semantically close to each other and do not contrast in all contexts. There is nothing principally wrong in saying that the indicative imperfect and past future (in fact, all the tenses with a past reference
point) sometimes function as conditional forms. Moreover, if the prototypical meaning of a conditional mood is something like "contra-factivity in conditional sentences", then the Balkan conditional is actually a "purer" conditional than the bix-forms, which sometimes convey additional meanings. The semantic connection between the conditional and past tenses, especially the past future, is a cross-linguistic regularity, a universal tendency. As a matter of fact, Goźad (1964: 193-197) shows that the bix-conditional itself may originally have been a past future. 9

4.2 The Versatile Šte

In his cross-linguistic study, Ultan (1978) has shown that future tenses often derive from various modal constructions, and often assume additional modal meanings. The Bulgarian future, marked with Šte, is no exception. Like the English future marker will, and like the future marker's in many other languages (Ultan 1978: 113), Šte derives from a verb meaning 'to want'. (The verb Šta still marginally exists in the contemporary language; Šte is its third person singular form.) The modal meanings that Šte can convey, besides its futural meaning, are found in several other languages, too. They can be divided into three groups: (i) deontic modality, (ii) epistemic modality, and (iii) ability. The (iv) habitual interpretation derives from these.

(i) The use of the future as a kind of imperative, to express deontic necessity, is widespread in the world's languages (Ultan 1978: 103). A Bulgarian example:

(28) Samuil otvárna(P,A) oči ot nego i se obárna(P,A) kám gotvača: -- Šte prigotviš(P) samo edno jadene. 'Samuil took his eyes off him and turned to the cook: "You will prepare only one meal."'
(Dimităr Talev, quoted in Stankov 1981: 68)
Deontic necessity does not cancel the future time reference, because something that is ordered can only take place in the future. But this requires that the deontic future only express what Lyons (1977: 828) calls "restricted obligation", i.e. obligation on a particular occasion. If a generally valid obligation were expressed, the time reference would not be futural but that of the habitual present (as in ne ubivaj(I), ne preljubodejstvuvaj(P&I), ne kradi(I) 'you shall not murder, you shall not commit adultery, you shall not steal').

(ii) It is also common for a future tense to express probability or supposition, as in German Er wird der Mörder sein '<I guess> he is the murderer' (Ultan 1978: 103-104; cf. Lyons 1977: 816ff.). These are instances of epistemic modality, though the strength of the epistemic commitment implied by the future form may vary from language to language. In Bulgarian, it is close to epistemic necessity; but at the same time šte shows that the truth of the statement is only inferred, not based on a direct observation:

(29) Toj prekara(P,A) edna godina v Anglija, ta šte znae(I) anglijski.

'He spent a year in Britain, so he must know English.'
(Pašov 1981: 106)

In interrogative sentences a distinct type can be found that is closer to epistemic possibility:

(30) Brojlerašt, nali njama(I) nikakav instinct za samošvrane-
nie, štom videše(P,I), če se zadava(I) kām nego lisicata, se raztrepervaše(I,I) ot ljubopitstvo: kato kakvo li šte-
e(I) tova, deto ide(I) kām nego.

'It is well-known that the broiler does not have any instinct of self-preservation; as soon as it noticed that the fox was approaching it, it began to tremble with curiosity: what could that be, coming towards it?'
(Jordan Radičkov)

I agree with Stankov (1969: 139-141) and Pašov (1981:
106) that such inferential forms as in (29) must be regarded as results of combining šte with the present tense, rather than of giving the future a particular interpretation. Šte can also be attached to the perfect (Pašov, ibid.):

(31) Šte e razbral(P) istinata, zaštoto veče e(I) spokoen.
'He must have understood the truth, because he is already calm.'

Formally šte e razbral would be a future perfect, but it is simpler to think of it as a combination of an epistemic šte and a perfect. The independence of this kind of šte is further supported by the fact that it can take the complementizer da between it and the main verb form (šte da znae, šte da e razbral). This happens particularly often with the verb sám, even in the interrogative context exemplified by (30).

(iii) The Bulgarian future is often said to express potentiality or ability (e.g. Gramatika 1983: 343; cf. Ultan 1978: 104). Many examples subsumed under this heading are in fact instances of epistemic modality, but there are clear ability cases as well:

(32) Šte napišeš(P) li doklada v opredelenija srok?
'Can you write the paper by the deadline?'
(Stankov 1969: 135)

Basically the futural time reference is retained in such a use. But it shades into habituality, which can be related to other temporal planes as well (see below).

(iv) The habitual interpretation of the future is widely attested in various languages, too (Ultan 1978: 102-103). Reference to the past is possible:

(33) Dobår čovek beše(I,I) pokojnijat ni sásed, pomagaše(I,I) ni -- decata ni šte nagleda(P), kato kupuva(I) edno-drugo ot pazara, i za nas šte kupi(P) ja grozde, ja praskovi ...

'Our late neighbor was a good man, he used to help us --
he would look after our children, and when he was buying one or another thing at the market, he would buy either grapes or peaches for us, too.'
(Janakiev 1976: 238)

The habitual interpretation of the future obviously derives from its modal functions, especially from the ability reading: there is a close connection between saying that somebody is able to do something, and that he or she indeed does something regularly. Conversely, a characterizing habitual (cf. 2.5.1) often expresses ability, too, as in sgovorna družina planina sâbarja(I) (or podviga(I)) 'a united company removes a mountain'.

The various modal interpretations of Šte have made some linguists to contend that it is not a tense marker at all, but rather a marker of mood (Aronson 1967, 1977; Janakiev 1976). Šte-forms can refer to the present or past; and even when they refer to the future, there is necessarily something modal to them, because future events are not real in the same sense as the past and present events are. This argumentation is opposed by Stankov (1969: 133) and Galton (1976: 120), among others (cf. also Heger 1963: 32-33, footnote 64). Stankov points out that the non-modally futural interpretation of a form like šte čete(I) 'will read' is more context-independent than the modal readings are. According to Galton, the uncertainty of the future "is not a linguistic, but an ontological question". To this it could be replied that ontological and epistemological questions have to be taken into account when a language with human speakers is described.

I think Lyons's standpoint is closest to the truth: "For general syntactic theory, it may be taken as axiomatic that 'futurity' is a notion that cuts across the distinction of mood and tense" (1968: 310; cf. also 1977: 816ff.). The future in Bulgarian, as in other languages, is both a temporal and modal form, even both a "tense" and a "mood". The fact that it can refer to other temporal planes than the future time does not really refute its temporal character, because practically all the Bulgarian tenses possess transposed uses (Stankov 1981). On
the other hand, the central position of its non-modal interpretation, pointed out by Stankov, does not prevent it from also being a modal form, since future situations really have a more indeterminate epistemological status than do present and past situations.

Specifically in Bulgarian there is an additional way of clarifying the issue. Šte can be considered to be an independent auxiliary (dominated by the AUX node as defined in Akmajian & al. 1979) having several functions; one of these is to mark the future tense, another is to mark, say, epistemic modality. (As noted above, especially with respect to epistemic modality a strong case can be made for the independence of Šte.) The various functions of Šte are, of course, closely related, as the cross-linguistic parallels show; but it may still be more correct to say that various temporal and modal functions have clustered around Šte, than that the future tense itself has different modal interpretations.

4.3 Evidential Modality and the Secondary Perfects

One of the most interesting features of Bulgarian is the existence of special reported forms (preizkazni formi), expressing that the situation the speaker refers to has not been witnessed by him, but he has only been told about it. They are entirely living forms even in the colloquial language, as Roth's (1979) pioneering informant study shows. She also demonstrates, however, that not all reported forms mentioned in normative grammars are in fact accepted as grammatical by ordinary speakers, let alone employed by them. Roth's study contains a useful overview of previous research into the reported forms, but her own contribution should be read in conjunction with Kucarov's (1981) review of it, because it is not free from errors, either.12 Đëmina (1959) is a good source of literary examples.

In the reported forms, the tense feature <PAST> is neutralized: the pairs present / imperfect, perfect / pluperfect,
and future / past future only have one reported representative each (cf. Pašov 1984). The aorist possesses a counterpart of its own, because it differs from the present tense aspectually. The first and third person singular reported forms of xodja 'to go' are as follows (only masculine forms are given):

**PRESENT & IMPERFECT:** xodel sâm, xodel  
**AORIST:** xodil sâm, xodil  
**PERFECT & PLUPERFECT:** bil sâm xodil, bil xodil  
**FUTURE & PAST FUTURE:** Štjal sâm da xodja, Štjal da xodi

The reported aorist is formally identical with the non-reported perfect, with the exception that in the former, the auxiliary 'to be' is omitted in the third person singular and plural. The reported forms have developed historically from the perfect under Turkish influence (cf. Roth 1979: 55-71 and the literature quoted there; but Friedman 1978 sees the Turkish influence in a different light). The lack of the auxiliary in the third persons is characteristic of all the reported tenses.

Normative grammars (e.g. Gramatika 1983: 359-360) also give a reported counterpart of the future, perfect (štjal sâm da sâm xodil, štjal da e xodil), but the examples are constructed, not attested. But there are other forms which, although actually occurring, have not yet been listed. If the speaker wants to throw doubt upon the information he or she reports to have heard, special dubitative reported forms can be used. They are formed analytically by replacing sâm, the auxiliary of the reported mood, with its reported counterpart, so that the resultant forms are morphologically "doubly-reported". In the third persons, only the outer occurrence of the auxiliary is omitted:

**PRESENT & IMPERFECT:** bil sâm xodel, bil xodel  
**AORIST:** bil sâm xodil, bil xodil  
**PERFECT & PLUPERFECT:** (bil sâm xodil, bil xodil)  
**FUTURE & PAST FUTURE:** štjal sâm bil da xodja,  
Štjal bil da xodi
Note that the dubitative aorist is homonymous with the ordinary reported perfect and pluperfect, and the latter do not have a genuine dubitative counterpart. Needless to say, the dubitative future perfect would be a purely theoretical construct. Forms like štjal sâm bil da sâm xodil are frequently given in the Bulgarian grammatical literature since Andrejčin (1938: 57), but their existence is even more chimerical than that of their simple reported counterparts.

According to Roth (1979: 154-156), the colloquial language particularly favors the forms xodil and xodel; the forms bil xodil (in either meaning), bil xodel and štjal da xodi are rarer. The form štjal bil da xodi was accepted as grammatical by less than half of her 104 informants (from 13 different towns), but it should be noted that her questionnaire did not give any context for the sentences being judged. My personal experience is that pointing out a plausible context for use can often change an informant's negative judgment. The theoretical reported future perfect was rejected by Roth's informants more categorically, 90 against 14 (p. 134).

Examples with the reported aorist or imperfect are easy to find -- all folktales use them -- and will not be given here. The following passage from a reader's letter in Anteni, being close to the colloquial style, nicely illustrates the reported perfect / pluperfect and the reported future / past future:

(34) Pokazaxa(P,A) mi vestnika, pročetox(P,A). I kato otidox(P,A) v magazina, če kato me podxvvana(P,A) magazinerat -- koga mi bil vzemal(I) poveče pari, da izlizam(I) vednaga i da ne xodja(P&I) poveče pri nego, če štjal da me izxvârli(P), ama ne bilo(I) zakonno.
'They showed me the paper <where my previous letter appeared>, and I read it. And when I went to the store, you should've heard how the storekeeper let me have it -- <he asked me> when he had taken me extra money, <and told that> I had to go out at once and no longer return to him, for he would throw me out, but it wouldn't be legal.'
This is an example of a dubitative reported aorist:

(35) -- Kazva, če e nastāpil(P) taralež -- reče(P,A) E. S., -- če ot tova bila eksplodirala(P) gumata mu i če za nego tova e(I) goljamo priključenie.

"He says that he ran over a hedgehog," E. S. told, "and <he asserts> that his tire exploded because of it, and that this is a great adventure to him."

(Jordan Radičkov)

There has been much discussion of whether the reported forms are a "fourth mood" (Teodorov-Balan 1976/1957) besides the indicative, imperative, and conditional mood. Andrejčin's Cracow dissertation (1938) distinguished between moods (in Polish, tryby) and "types of utterance" (Pol. rodzaje wypowiedzi). The reported forms represented a "type of utterance" of their own. Later Andrejčin only spoke of "reported forms" (e.g. 1978/1944: 216ff.) or even "reported mood" (so in Andrejčin & al. 1977, where the Latin term <modus> indirectivus is proposed). The term "type of utterance" (Bulg. način na izkazvaneto) is still used by other Bulgarian linguists (Kucarov 1983).

According to Roman Jakobson (1971b: 135), mood "characterizes the relation between the narrated event and its participants with reference to the participants of the speech event"; forms like the Bulgarian reported tenses represent another grammatical category with the "tentative label" evidential. The reported forms constitute an evidential of "indirect narration", showing that the "speech event" does not refer to the "narrated event" directly, but via another speech event, called the "narrated speech event". Aronson (1967) applies Jakobson's definitions to the Bulgarian verb system and establishes an evidential opposition "+/-reported" within the indicative mood. The distinction between normal and dubitative reported forms is handled with the opposition "+/-dubitative" within the grammatical category of status, which was proposed by Jakobson (p. 134), too.

I do not think that the concept of mood has yet been
defined so exactly that it could be strictly distinguished from evidential, let alone status. When any modal meaning is grammaticalized, the result can be called a mood. The modality has to do with necessity and possibility (Lyons 1977: 787; cf. Palmer 1979). The sources of the necessity and possibility vary: they can be epistemic, deontic, or (as regards possibility) stem from physical ability. As Lyons's (1977: 797ff.) discussion of subjective and objective epistemic modality shows, the speaker's attitude towards what he or she is saying need not be the only source of the modality: It may be raining in London can mean that the speaker does not know for sure if it is raining or not, but it can also mean that the speaker knows certainly that there is a possibility of rain. Given these considerations, it is reasonable to assume that the reported forms do constitute a mood: they imply an epistemic reservation, based on the fact that the speaker is only reporting somebody else's statement. This could be considered an instance of epistemic modality, and the distinction between the dubitative and non-dubitative reported forms is certainly epistemic. But since by using the reported mood the speaker also indicates the motivation of the epistemic reservation, it is useful to distinguish a separate type of modality that can be called "witness modality" or, to adapt Jakobson's term, evidential modality.

From the vantage point of speech act theory, both the indicative and the ordinary (i.e. non-dubitative) reported mood share the sincerity condition "the speaker believes p", where p is the propositional content of the utterance (cf. Searle 1969: 66). Evidential modality only expresses the basis of this belief. The same sincerity condition obviously does not obtain in the dubitative reported forms.

Even when we only consider the indicative and non-dubitative reported mood, there are not two but three distinct types of evidential modality in Bulgarian: witnessed, neutral, and reported (Stankov 1966: 105-107; 1969: 155-191; 1976b). The reported modality is expressed by the reported mood. Within the indicative mood, tenses are divided into two groups: only the <+PAST> tenses (preterite, pluperfect, past future, past
future perfect) are witnessed, the other four represent a neutral evidential modality. The neutral indicative tenses can be used even if the speaker is/was not an eyewitness; there exist corresponding reported tenses, to be sure, but because their use is not obligatory, they may implicate doubt (without being formally dubitative). In the following example, the indicative present and reported preterite are used in the same context -- because the present is a neutral tense, the need for a reported form is not equally strong as it is in the preterite:

(36) Dvete babički ... objasnjavaju na freski ežik, če pātuvat(I) za Istanbul, če sa(I) ot freskija grad Ruan s pročutata katedrala, če smjateli(I,I) da zakusjat(P) v Sofija, no njakakvo mnogo nastrāxnalo životno preprečilo(P,A) pātja im ...

'The two little old women explained in French that they were traveling <ind.present> to Istanbul, that they were <ind.present> from the French city Rouen with the famous cathedral, and that they had thought <rep.imperfect> to eat in Sofia, but some kind of very bristly animal had come <rep.aorist> in their way.'

(Jordan Radičkov)

It is easy to understand why the future should be neutral -- since future situations can never be known with absolute certainty, there is little point in indicating if one expects to witness them or not. But the present and the perfect tense are neutral, too, and they provide a useful way of neutrally referring to situations, even to past ones: the historical present is evidentially neutral (Andrejčin 1938: 66), and the perfect is often used in contexts which would seem to require an aorist by purely temporal considerations. In that case the perfect frequently has an inferential interpretation: the speaker did not hear of an event from another person, but neither did he himself see it; he only infers its occurrence from the situation at hand (cf. 2.3.1):
(37) ... ne mogu da si spomnja koga i kak sam ožuljil râkata si po takâv bezobrazen način. Sljekla se e vsičkata boja!
'I cannot remember when and how I grazed my hand in such an awful fashion. All the paint has been rubbed off!' 
(Andrej Guljaški; the speaker is a robot)

The example shows clearly how the inferential interpretation is based on the resultativity: the robot notices that the paint has been rubbed off (a resultative perfect) and infers that it must have grazed (an inferential perfect) its hand in some way or other. Inferentiality is resultativity the other way round: in resultativity, a present state derives from a past event; in inferentiality, a past event is inferred from the present state of affairs (Lindstedt 1983).

The threefold distinction witnessed / neutral / reported is not uncontroversial. Aronson (1967) and Friedman (1978) argue that, on the one hand, "confirmative" (Aronson) or "affirmative" (Friedman) would be a better label than "witnessed" and that, on the other hand, the difference between the (evidentially neutral) indicative perfect and the reported aorist is not so sharp as it is thought to be.

Aronson (p. 87) advances two arguments against the designation "witnessed". To take the minor argument first, an indicative aorist, for instance, is sometimes used to express absolute certainty, even though the speaker has not witnessed the event in question:

(38) -- Edna zvezda padna(P,A), -- kaza Marin. -- Umrja(P,A) njakoj.
"'A star fell," said Marin. "Somebody died."
(Jordan Jovkov, quoted in Aronson 1967: 87)

Because Marin did not really see anybody die, nor heard about a death from somebody else, we would expect the perfect umrjali e. But if Marin believes that a falling star always signals somebody's death, then seeing a star fall nearly counts as witnessing a death. This is a rather special example which should
not be relied upon in determining the modal content of the aorist.

Aronson's major argument is based on the fact that generally known situations can be referred to with indicative preterite forms, provided they are contemporary with the speaker. Newspaper stories, for instance, generally make use of such forms. In the newest _Kratka istorija na Bălgarija_ (Sofija 1983), the reported mood and the (evidentially neutral) indicative perfect are used up to the year 1878; then the indicative preterite comes on the narrative scene. The exact date is of course not important; the year 1878 only happens to coincide with a major chapter division. We can say that insofar as Bulgarian history is concerned, the indicative preterite is employed to describe the events of the last hundred years, approximately. Moreover, as Andrejčin (1938: 62-63) already pointed out, even older historically important events can be referred to with this tense, though their details must then be described in the reported mood (cf. also _Gramatika_ 1983: 363). Now, it is understandable that in historical or newspaper discourse "witnessing" cannot be interpreted relative to each individual author -- the result would be chaotic. There must be some kind of collective "we" that has witnessed all the contemporary events of general significance. I would not say that the feature "witnessed" is replaced with something else, but rather that it is interpreted relative to common knowledge.

Aronson and Friedman also argue that the difference between the indicative perfect and the reported aorist is not clear-cut. Remember that in the first and second persons they are formally identical, and in the third persons, only the omission of the auxiliary distinguishes the reported form. Aronson's (1967: 93-94) opinion is that the opposition of the two forms is neutralized in the first and second persons, and Friedman (1978: 113-114) goes even farther claiming that it does not really exist in the third persons, either, because the omission of the auxiliary is not as regular as normative grammars describe: reported forms can occasionally contain the auxiliary, and not all auxiliary-less forms are reported. Without going into details, I will mention a few arguments against
Aronson's and Friedman's positions.

First, if the indicative perfect is evidently neutral, it is natural that it can also be used to refer to situations other people have told us about; the perfect need not be only inferential.

Second, even though the auxiliary omission is not as regular as the codified rule demands, in a narrative discourse it certainly is so regular that it must be considered a rule, not a mere tendency. Vacillating cases can be found in isolated utterances (cf. e nastāpil in (35) above) but longer stretches of narrative are consistent in the omission. This shows that the auxiliary-less forms are really aorists, not perfects.

And third, if reported aorists were only indicative perfects, the perfect could not have a reported counterpart of its own. Aronson (1967: 94, footnote 16) argues that sentences allegedly exemplifying a reported perfect of the type bil xodil (cf. above), in fact generally contain either a dubitative past form or a reported pluperfect. But if the indicative perfect is a neutral form, it is natural that the reported perfect should implicate doubt, without being necessarily dubitative, as Aronson himself notes (p. 95). It is of course a difficult question whether bil xodil is one form or two, and which of its various interpretations should be grouped together. But at any rate, there are reported forms, dubitative or not, that correspond to the indicative perfect.

There is, however, another sense in which the indicative perfect really has a double status: on the one hand, it is opposed to the other tenses of the indicative by virtue of its time reference properties; on the other hand, it also serves as an evidentially neutral, often inferential, counterpart of the indicative aorist. But all the other witnessed, i.e. <+PAST>, tenses would in principle need a neutral counterpart, too, because not all that is not witnessed is necessarily hearsay. There are in fact such forms in Modern Bulgarian (Dëmina 1959: 319ff.; Penčev 1976; Stankov 1976b; Gerdžikov 1982). They are formally identical with the reported tenses, except that the auxiliary is not omitted (examples are third person singular, masculine):
For lack of better designations, I will call the underscored forms "inferential imperfect", "inferential pluperfect", and "inferential past future", respectively, since inferentiality is the major (though not sole) interpretation of their neutral evidential modality. The drawback to this terminology is that we have already been using "inferential perfect" to denote one interpretation of the perfect, whereas "inferential imperfect", for instance, is a form distinct from the ordinary imperfect. But because the perfect itself, being a <-PAST> tense, does not have a separate inferential counterpart, the risk of confusion is not great.

The underscored forms can be collectively referred to as secondary perfections. They are "secondary" for several reasons. Historically they are younger forms than the ordinary perfect; their meaning range is limited; and they do not yet have an established position in the language.

The meaning range of the primary perfect xodil e was discussed in 2.2.4, 2.3, and 3.3.2. It is a past tense that is in specific ways opposed to the aorist, the imperfect, and the other past tenses.16 It is not only an evidentially neutral aorist; for instance, it can be used in habitual sentences in which the aorist cannot:

(39a) Toj često xodeše na kino. <imperfect>
(39b) *Toj često xodl na kino. <aorist>
(39c) Toj često e xodil na kino. <perfect>
   'He often went / has often went to the movies.'
   (Štankov 1969: 67)

Notice that the habituality is not a sufficient reason for an inferential imperfect to be used; the reason must be modal, as in the following examples:
(40) -- V čekmedžeto na masata ima(I) njakolko tubički s lekarska. No pamuk ne vidjaj(P,A) nikâde. -- Znači toj go e nosel(I) sâs sebe si -- kaza(P,A) Penčev.
"In the drawer of the table there are some tubes of medicine. But cotton batting I didn't see anywhere." "So he must have had it with him," Penčev said.'
(D. Peev, quoted in Stankov 1976b: 371)

(41) ... pesni, za koito sâstaviteljat svïdetelstvuva(P&I), če sa se peeli(I) ot bojcite na finlandskija batal'òn na bâlgarska zemja.
'... songs, which according to their collector were sung by the Finnish battalion on Bulgarian ground.'
(Georgi Vålčev)

(42) V načaloto na nadpisa e izrjazan(P) običajnijat krâst, kojto v srednovekovnite pametnici e igrael(I) rolja na znak za dostovernost na tova, koeto e pisano(P) sled nego.
'In the beginning of the inscription, the customary cross has been engraved which in medieval records played the role of a sign of the reliability of what was written after it.'
(Jordan Zaimov)

In (41), the source of the information is another person, but no narrative is involved, and an evidentially neutral form can be used. In (42) we have an inferential imperfect, too, typical of historical conclusions of a more general nature.¹⁷

The fact that the secondary perfects have not yet been fully established in the language is seen from informant responses to the two alternatives in the following sentence:

(43) Prabâlgarite ukrepili(P,A) vsîčki bregovi ivici, kâdeto e mogâl <perfect> / e možel <inferential imperfect> da napravi(P) desant vizantijskijat flot.
'The proto-Bulgarians fortified all costal zones which
could be (could have been) invaded by the Byzantine navy."

In the book in which I found this sentence, the ordinary perfect was used (in spite of the reported aorist in the main clause). On the other hand, had the author been able to employ a witnessed form, it would have been an imperfect, not an aorist (cf. the discussion of možâx vs. možešê in 3.2.3 and especially in 4.1 above). So, if the secondary perfects were fully established forms, the inferential imperfect e možel would be more natural. Of my 14 informants (of various ages, all from Sofia), 8 accepted both forms, 2 only the perfect, 3 only the inferential imperfect, and one (written) answer could not be interpreted certainly. Their comments on the meaning difference between the two forms were divergent. One informant, however, motivated the ungrammatically of the perfect writing: "Mogâl is in the past, there is no reason for fortifying." This might be interpreted so that at least for this speaker, e mogâl would imply factive reading of the main verb.

Roth (1979) and Peuillet (1980) consider the secondary perfects to be variants of the corresponding reported forms. In Turkish the reported and inferential meanings are indeed interpretations of one and the same form (Slobin & Aksu 1982). However, the omission of the auxiliary seems again to sufficiently correlate with the difference in meaning to justify the distinction in Bulgarian. Since the secondary perfects, like the perfect itself, are not only inferentials but evidentially neutral forms, it is understandable that they are to some extent used even in contexts where information received from somebody else is reported, if its hearsay status need not be indicated. On the other hand, a discourse in the reported mood can sometimes contain even inferences expressed with such forms -- the mood is, as it were, assigned to the discourse as a whole, not to each individual sentence. So, in a text describing the history of a certain old chronicle we may find following:

(44) S goljama verojatnost obače može(I) da se predpolaga(I),
če tova ... proizvedenie bilo napraveno(P,A) dostupno na bălgarite črez peroto na knižovnik, kojto poznavał(I,I) otlično gräčkija ezik...
'With a great probability we can presume that this work was made <reported aorist> accessible to Bulgarians by a man of letters who knew <reported imperfect> the Greek language excellently.'
(Ivan Dujčev)

In fact, the non-reported perfect e bilo napraveno might have made the inference sound more categorical than it was meant to.

Several scholars (Walter 1973, 1977; Gerdžikov 1982; Maslov 1981; Kucarov 1983) are of the opinion that the secondary perfects constitute a special inferential mood besides (or rather between) the indicative and reported mood. But the system is not so symmetrical as it is made to appear. The postulated inferential mood would only have forms for the <+PAST> tenses. Maslov's (1981: 278) grammar produces the following example (attributed to Gerdžikov), allegedly illustrating the inferential present:

(45) ??Izliza(I), če toj e znael(I) da pluva(I), no krie(I).
'It appears that he can swim, but hides it.'

Informants do not, however, accept this sentence as grammatical, except for the perfect reading 'has been able to swim' and the inferential imperfect reading 'could swim' (which are not, though, fully compatible with the present tense krie: e kriel (I) or krieše(I,I) would be preferred). Another "present inferential" presented by Maslov (p. 193) is no more acceptable to informants:

(46) 'Toj e pišel(I) sega nov roman.
'He must be now writing a new novel.'

Contrary to the reported xodel, the inferential xodel e cannot refer to the present. Note that there is another way of marking inferentials in Bulgarian, namely the auxiliary šte (da) dis-
cussed in 4.2 above. This device can be used in all the tenses; it can even be added to an already inferential imperfect (e.g. šte (da) e četjajl '(s)he must have read, (s)he must have been reading').

There could of course be an inferential mood even if it did not have forms for all of the tenses. But a more serious problem is that if such a mood existed, the form type xodil e would be grammatically homonymous: it would represent both the indicative perfect and the inferential aorist. (In the first and second persons, one and the same form ought to represent the indicative perfect, the inferential aorist, and the report-ed aorist.) In practice it would be difficult to decide what instances of that form belonged to the first type, and what to the other. Consider the following scene from the novel Pod igoto, which has been frequently used to illustrate the inferential meaning:

(47) Ognjanov butna(P,A) vratata i vleze(P,A).
Rada go posreštna(P,A) s usmivka prez sâlzi.
-- Rado, ti si plakala(I)!
'Ognjanov pushed the door and entered.
Rada received him smiling through her tears.
"Rada, you have been crying!"

The form e plakala certainly expresses inferentiality, among other things. But it would be wrong to say that it is not also an indicative perfect, with all the time reference properties of that tense: Ognjanov only says that there has been crying, he does not have a particular occasion in mind. In other words, inferentiality does not make a perfect an aorist. This is even more visible in the following example:

(48) Tja e došla(P) otljavo -- liči(I) kak e polomila(P) ži-toto.
'She must have come from the left -- it can be seen how she has crushed the crop.'
(Angel Karalijčev, quoted in Maslov 1981: 254)
In fact, Maslov (1981: 244-245; 254) does not follow Gerdžikov in positing two homonymous forms xodil e; Maslov only regards xodil e as an indicative perfect, having an inferential interpretation in some contexts. But this means that just those forms which, after all, express inferentiality most often are excluded from the "inferential mood".

The rise of the secondary perfects should not be regarded as an emergence of a new mood, but rather as a reinterpretation of what a perfect is in relation to other past tenses. Recall the formula of the perfect from Ch. 2:

\[
\text{E before R simul S (xodil e)}
\]

Now, this can be viewed as an aorist (E before S) with an extra R simul added before the S. The same addition can then be made to the other "before S" (i.e. <+PAST>) tenses as well:

\[
\text{E simul R before R' simul S (xodel e)}
\]
\[
\text{E before R before R' simul S (bil e xodil)}
\]
\[
\text{E after R before R' simul S (štjal e da xodi)}
\]

The appearance of xodel e in particular makes the system more symmetrical. Because the normal perfect xodil e contains an aorist-based participle, it is associated more strongly with the aorist than with the imperfect. The proportion xodi : xodeše = xodil e : X gives X = xodel e. The analogy is not complete, though, since xodil e covers more meaning with respect to xodel e than the aorist with respect to the imperfect. As (39) above showed, habituality does not require that xodel e replace xodil e, although it requires that the imperfect be substituted for the aorist. The meaning range of the secondary perfects is still more limited than that of their primary model.

It is possible, however, that the type xodel e will extend its meaning over and above its present (mainly inferential) content. We would expect this to happen first in those inherently open (atelic) verbs which are rarely used in the aorist. Moreover, the verbs should be of such a conjugational
type that the aorist-based and imperfect-based participle are formally contrasted.

Something like this is indeed happening with the verb znaja(I) 'to know'. Grammars and dictionaries give for it the aorist znàjaj or znàjàx. This is a somewhat irregular form; all the prefixed derivatives of znaja use the aorist -znax, e.g. priznax 'I acknowledged, I admitted'. Dejanova (1966: 157) considers znàjac to be a dialectal form only. But even if it were considered part of the standard language, there certainly seldom arises a reason to employ it; only some delimitative expression of the type 'I knew it from some time but then forgot it' could come into question. As regards the perfects znajàl sâm and znàjal sâm, the first, with a stress shift, is now considered obsolete or dialectal; and the other, comes phonetically near to the secondary perfect znàel e, with an imperfect based participle. Znàjal e and znàel e are not distinct forms for all speakers. Znàel e may also be preferred because in the preterite, it is the imperfect that is normally used. All this explains why secondary perfects of the verb znaja are particularly easy to find:

(49) Za neja njamaše(I,I) sâmnenija, če Elica e znàela(I) za baštinoto padenie otjavna i sigurno.
'For her there was no doubt that Elica had known of her father's sin for a long time and with certainty.'
(Gerčo Atanasov)

(50) -- Momčile, bašta ti zarača(P,A) da stoim(I) gore na mandrata.
-- Znàel(I) li e, če šte dojde(P) xaber? Ne e znàel(I).
'"Momčil, your father ordered us to stay high up at the dairy."
"Did he know that word would come? He didn't."'
(Anton Dončev)

At least (50) still looks like a normal inferential. But this is a more interesting example:
(51) Da bjax znael po-rano, njamaše da xodja v grada.
   'If I had known earlier, I wouldn't have gone to the town.'
   (Mixov 1979: 34)

Here the imperfect-based participle is used as part of a pluperfect form that has a counterfactual modal function (cf. 4.1). In general, the imperfect participle cannot be used in the pluperfect:

(52) Arxeolozite predpolagaxa(I,I), če v grada
     \[
     \begin{align*}
     & sa živeleI(I) <\text{perfect}> \\
     & sa živeleI(I) <\text{inferential imperfect}> \\
     & *bjaxa živeleI(I)
     \end{align*}
     \]
     okoilo xiljadju duši. 22
   'Archeologists presumed that approximately two thousand people had lived in the town.'

The imperfect participle may be gaining ground even outside the perfect. Pašov (1976c: 50, footnote 2) mentions an isolated example of zaviselo(I) 'depending' as a modifier of a noun. Like znajaI(I), the verb zavisjaI(I) 'to depend' is not normally used in the aorist. There are also some instances of an imperfect participle in the bix-conditional:

(53) Ako v edin ot našite ostrovi se otkrijat(P) sledvaštite edin sled drug plastove na Pikaso ... izumenite arxeolozi bixa târseliI(I) žitelite i kulturite, koito sa sâzdali(P) tolkova mnogo, kato sa natrupali(P) prekrasni igri i čudesa.
   'If the consecutive layers of Picasso were found on one of our islands, the astonished archeologists would search for the inhabitants and cultures that had created so much, piling up marvelous plays and miracles.'
   (Literaturen front)

V. Popova (1962) gives some conditional examples with the imperfect participle značelI(I), from značaI(I) 'to mean'. Al-
though she condemns them from the normative point of view, she correctly points out that they have arisen because znača is practically never used in the aorist. The form bixa tārseli 'would search for' in (53) is even more interesting, for tārsja certainly can be used in the aorist, in the delimitative sense 'I sought for a certain time', exemplified by sentence (90) in 3.3.2. As a matter of fact, in the light of my limited material there seems to be no obvious semantic difference between bixa tārseli and the normative bixa tārsili:

(54) V takāv slučaj bixa gi tārsili / tārseli i bixa gi name-rili(P).
    'In that case they would search for them and find them.'

(55) V takāv slučaj bixa gi tārsili / tārseli bezuspešno.
    'In that case they would search for them in vain.'

But in more extensive contexts differences might appear as regards habituality, for instance.

The appearance of "extranormative" forms like bixa tārseli, or šte da e četjal, is understandable in terms of the Bulgarian verbal system. Since the great majority of the forms are periphrastic, the restrictions on well-formedness are not so binding as they would be in a synthetic paradigm. The grammar of the Bulgarian verb is open-ended: it can readily be adapted to express the most varied shades of meaning, and it itself creates new meaning potentials.
5 CONCLUSION: TIMES, BOUNDS, AND MODALITIES

Language is systemic -- a system of subsystems. Such interacting subsystems are found in both form and meaning. In this book we have been discussing the morphosyntactic systems of tense and aspect from the vantage point of the three semantic domains temporal reference, aspectuality (i.e. classification of situations), and modality. Formal and semantic systems are not in a one-to-one relation to each other. Although the primary semantic domain of Bulgarian tense, for instance, is temporal reference, it also expresses various aspe ctual and modal distinctions. Moreover, aspectuality and temporal reference are intertwined semantically, because the type of situation may determine how it can be referred to temporally.

The semantic domain of aspectuality divides situations into situation classes. "Situation" is here defined as the denotatum of a (system-)sentence, or the referent of an utterance. The main situation classes are events, processes, and states. The distinction between events and non-events is fundamental for the study of verbal aspect in Slavic. In Bulgarian, events are denoted by the perfective aspect and the aorist. The essential property of events is that they are bounded, i.e. that reference to them necessarily includes their end-points. But a competing "fuller" concept of event can also be observed in Slavic: an event is a link in a chain of events, a transition from one state of the discourse world into another. If a situation is an event only in that it is bounded, but does not fulfill the other definition, it can be referred to with an imperfective verb. The most important instances of this are the conative imperfective, the imperfective of isolated event, and the imperfective of reversed event. In Bulgarian, a conative
imperfective referring to the past usually appears in the imperfect, but the two other types are used in the aorist.

A situation which is not bounded is open. But an open situation can always be bounded by imposing a temporal limit on it; and a bounded situation can be opened by "pluralizing" it, that is to say by taking an open series of habitually repeated events. The theory of aspectual nesting describes the aspctual structures of sentences in terms of layers which are either bounds or openers. The innermost layer is the inherent aspctual character of the verb; a verb can be lexically bounded or open, but if it is a telic verb, it has a neutral, or rather twofold, character. The theory of aspctual nesting gives a satisfactory explanation for the existence of imperfective aorists (insofar as they are not explained as imperfectives of isolated or reversed event), perfective imperfects and presents, delimitative and perdurative procedurals, as well as napisvam-type verbs, whose time reference can only be habitual (as opposed to continuous).

Temporal reference in Bulgarian can be described in terms of three time points: point of speech (S), point of reference (R), and point of the situation (traditionally abbreviated as E). These points are linked to each other by means of the three relations before, after, and simul (= simultaneous with). In one tense, the past future perfect, two R's are needed; but most uses of this tense are in fact modal (counterfactual).

The function of R is to indicate to what state of affairs the situation pertains, "state of affairs" being interpreted as a state of the discourse world. If E and R are simultaneous, as in the imperfect and present tense, the speaker merely describes some state of affairs. If there is no R, as in the aorist, we have a link in a chain of events, each producing a new state of affairs. And if there is an R but it is not simultaneous with E, the topic of the discourse is a state of affairs after (or before) the situation in question, as in the perfect, pluperfect, and one interpretation of the future. A situation may be relevant to a later topic period by virtue of its results being observable there, as in the resultative perfect; but in the existential perfect, the past situation is
subsumed under the present period only because its original
time of occurrence is not known. An existential perfect typi-
cally contains an imperfective of isolated event, whereas most
resultative perfects are perfective.

The connection between aspectuality and temporal refer-
ence is due to the fact that reference can be made to a bounded
situation only from an external time point. Consequently, the
relation E simul R excludes events. On the other hand, the
absence of R in the aorist requires an event, since a state or
a process would not produce the progression presupposed by this
type of time reference. As for R placed outside E, it allows
both a bounded and an open situation. The much-discussed prob-
lem of the semantic nature of the aorist: imperfect opposition
in Bulgarian is solved: the opposition is temporal, and there-
fore aspectual; or aspectual, and therefore temporal.

As morphosyntactic systems, tense and aspect are quite
different in Bulgarian. The system of tenses is fruitfully
described in terms of the three operators PAST, FUT, and PERF,
with a definite scope hierarchy; but the split of the preterite
tense into two forms, the aorist and the imperfect, has to be
accounted for separately. The perfective : imperfective opposi-
tion cannot be considered truly inflectional, though its formal
exponents are more regular in Bulgarian than in most other
Slavic languages.

Bulgarian tense forms can convey various modal meanings.
The imperfect, pluperfect, past future, and past future perfect
possess counterfactual functions. The future marker ãte is also
a marker of epistemic or deontic modality. All the indicative
tenses are divided, according to their evidential modality,
into witnessed and neutral tenses; the reported evidential
modality has grammaticalized as a separate mood. All the indica-
tive tenses containing the PAST operator are witnessed; the
others are neutral. Therefore the preterite : perfect opposi-
tion is, besides being temporal, also modal. The perfect is
mainly conceived of as an evidentially neutral counterpart of
the aorist, which is why there have appeared new perfect-like
counterparts ("inferentials") for the imperfect and other wit-
nessed tenses, too.
The verb system of Modern Bulgarian is more complex than that of any other Slavic language, past or present. There are many temporal, aspectual, and modal niceties which are not directly relevant to Slavic as a whole; but in essence, the Bulgarian verb is a true representative of both the Slavic and Balkan verb. And the very complexity of the system ensures that the tools of description which work for Bulgarian are also likely to work for other languages, even for those beyond the Slavic group.
NOTES

Chapter 1

1 Cf. Esa Itkonen (1981: 106): "Semantic meaning is the abstract meaning at the level of langue whereas pragmatic meaning is the concrete meaning at the level of parole". See also Kempson (1975).

2 On the distinction between grammatical and pragmatic competence, see Chomsky (1977: 3, 35ff.). Perhaps the speaker must also possess a still larger communicative competence (Hymes 1977: 75) so as to be able to choose appropriate dialects, registers, terms of address etc.

3 Stankov (1980: 5) also distinguishes between the "meaning" and "use" of the aspects but does not elaborate this distinction.

4 They actually use the term "grammatical category", making it unnecessarily ambiguous.

5 Sometimes this practice has of course gone wrong; the Finnish "imperfect" tense and "passive" forms, for example, have received very misleading names. Better names could have been chosen; but no special terms are needed for Finnish alone.

6 A similar terminology has been suggested by Bernard Comrie in a lecture held in Helsinki (November 1983). He equated interpretations with conversational implicatures, which I do not find a good suggestion: the well-known maxims of conversation are too general to be of help here.

7 In "situation semantics", the term interpretation is only used for what I call interpretation token (Barwise & Perry 1981: 672).

8 This is reminiscent of the problematic status of some lexical derivatives: they may be both so regularly derivable that they need not be included in the lexicon, and yet recurrent enough to suggest that they should be included there.

9 Later we shall restrict the sense of the term action.

10 Esa Itkonen (personal communication) has pointed out that the deductive model presupposes a distinction between general laws and particular facts, whereas in the pattern model all facts are seen on the same level. I think the distinction between the general and the particular is somewhat subjective, yet real enough to make one or the other model of explanation practically inapplicable in certain cases.
12 Insofar as the study of interpretations involves pragmatics, it is questionable if the deductive approach will ever be possible here (cf. Esa Itkonen 1981, and 1984: 119ff.).

13 Cf. the following quotations: "In our present ignorance of how people accomplish this feat <of moving conceptually around in time -- JL>, we have chosen temporal logic as a formal notation for describing what the unknown psychological mechanism must accomplish" (Miller & Johnson-Laird 1976: 457; emphasis added). "Our discussion has centered on what one plans -- the particular articles, adjectives, and nouns selected for a particular purpose -- but not how one plans it. The process of planning is still largely a mystery" (Clark & Clark 1977: 257; orig. emphasis). But note that even if the psycholinguist knew more, he or she would still have to start from "what must be done" (this is a point Esa Itkonen has made repeatedly).

14 But notice that the speaker's declarative knowledge only pertains to rather elementary facts of grammar. The generalizations linguists make about language structure are not part of the native speaker's competence -- the traditional concept of "tacit knowledge" is utterly misleading.

15 When grammatical facts are related to ontology (as suggested in section 1.2.2), we are dealing not only with psycholinguistics but with the whole of cognitive psychology. The analysis of our common everyday ontology is an instance of non-empirical conceptual analysis; but the question why everyday ontology is such as it is is obviously an empirical problem.

16 According to Levinson (1983: 40ff.), explanations by means of facts "outside the scope of linguistic theory" are "functional". This definition may be too broad. Functional explanations of linguistic structures are only those which are made in terms of what the structures are used for (Kaplan 1964: 363ff.; Lyons 1977: 249; Clark & Clark 1977: 7ff., 439ff.; Dik 1978: 1ff.; Langacker 1982: 303, note 25; cf. also Esa Itkonen 1984: 31ff.). Such explanations could be sought in pragmatics, psycholinguistics, and sociolinguistics (which in fact overlap a lot). But the term "functional" has so many uses in linguistics that it should perhaps be avoided.

17 A situation is what a sentence denotes, or what an utterance refers to (see section 3.1.1).

18 Jakobson (1971c: 8) reports that similar ideas were already presented in the Russian grammatical literature of the nineteenth century.

19 Since not all situations are events (according to the terminology adopted in this book), "point of the situation" would be a more exact term. I have, however, retained the traditional abbreviation E.
<Ch 1> 20 Note that the English translations too would count as modal forms in another context; and so would the corresponding Finnish forms (olisi tehnyt and olisi valloitettanut).

21 There are of course no consecutio phenomena in Bulgarian that would justify the use of two R's. The analysis of the past future perfect is a natural extrapolation from the analyses of the other tenses and it can be justified by observing what time points temporal adverbials can refer to.

22 The scheme for the past future has not been given yet; obviously it would be R ... E ... S, with R ... S=E and R ... S ... E as secondary interpretations (Reichenbach 1966: 297).

23 A generalized form of all the three formulae would be E (rel R1) * (rel S). An additional indexing convention (R1, R2, ...) is of course needed so that the different R's could be differentiated.

24 Needham actually calls the two quantifiers "P" and "F", but these names would misleadingly suggest that we are dealing with iterations of "past" and "future", which Needham denies explicitly. The names "BEFORE" and "AFTER" would be more suitable, but I have not chosen to use them because "xBEFOREy" would be read more naturally as "x is before y" than "before x there is a y", and so we would be compelled to refer to a coming moment with "BEFORE" and to a preceding moment with "AFTER".

25 This does not mean that the hearer can always infer the date and hour of the situation; but he or she knows that the situation is not temporally separated from the other past situations the discourse has just been about. In this sense the use of the preterite (simple past) presupposes a particular past that the discourse is about (cf. 2.3.1).

26 I do not exclude the possibility of there being a language whose temporal grammatical category is mainly taxis-like and not tense-like; but I assume that taxis and tense cannot be independent categories in the same language.

27 In older grammars, the meanings of forms were often treated as part of "morphology". This is still the case in Bulgarian grammatical tradition: in spite of its title, the useful collection of articles on "verbal morphology" (Pašov & Nicolova, eds., 1976) mainly deals with problems of syntax and grammatical (as opposed to lexical) semantics.

28 Since there is no infinitive in Bulgarian, the first person singular of the indicative present is used as the citation form of a verbal lexeme. For several reasons it would be better to use the third person singular, as is customary in Macedonian grammars and dictionaries. I have, however, retained the old convention in this study.

29 The position of the Bulgarian "inverted" suffixal pairs (the type srešťam(I) → srešťna(P) where the perfective is derived from the imperfective and not vice versa) is not clear in this discussion. When -n- has a momentary meaning, as in the
derivational series bod(a)(I) -&gt; bod(na)(P) -&gt; bod(vam)(I) 'to prick', the perfective with the suffix -n- is obviously comparable with a prefixal derivative (as regards aspectual pairs). But in the sreštam(I) / sreštna(P) example the imperfective also assumes the function of the non-existing secondary imperfective (*sreštvam(I)), which is why such instances should perhaps be treated in the same way as suffixal pairs proper, despite the "wrong" direction of derivation. Maslov (1963: 75-76) even suggests that the direction of derivation is synchronically sreštna(P) -&gt; sreštam(I).

<Ch 1> 30 Kučera (1983: 180-181) suggest that the distinction between prefixal and suffixal pairs reflects the differences between various situation types, to be dealt with in 3.1.

31 It is the more surprising that Isačenko makes the lack of a secondary imperfective a criterion for calling the prefixal verb an Aktionsart of the primary verb (cf. 3.1.4).

32 A Bulgarian example would be kāsam(I) 'to tear' -&gt; otkāsna(P) 'to tear off, to pick', razkāsam(P) 'to tear (to pieces), to break', skāsam(P) 'to tear', nakāsam(P) 'to tear to pieces; to pick (flowers etc.).' These do not exactly cover the Russian verbs semantically. They all have corresponding secondary imperfectives, otkāsvam(I) etc.

33 M. A. Šeljakin (1979a) has pointed out that this explains why many abstract verbs, such as telefonirovat' 'to phone', issledovat' 'to investigate' and several others, tend to remain biaspectral in Russian: their meanings do not contain such concrete components that could be used for choosing the prefix; but since they do not accept a prefix, 'they cannot accept a suffix either, because the imperfectivizing suffix is normally attached only to a prefixed perfective. I think this is a much better explanation than the traditional, namely that loan words do not participate in aspect formation: in fact, not all of these verbs are loans.

34 The two latter pairs may seem suspect because also in English different lexemes are used. But in Russian the choice between the members of each pair is done in strictly aspectual terms, as is shown by the following examples in Rassudova (1982: 98) and Forsyth (1970: 160):

(i) - Nado skazat' (P) emu o sobranii. - Ja už gevedor(I).
  ' - We must tell him about the meeting. - I've already told.'

(ii) Počti kaźduju noč lovili(I) vora około ferty.
  'Almost every night they caught (or were trying to catch) a thief near the farm.'

In (i), skazat'(P) and govorit'I function as a purely grammatical pair; the change of the verb in the reply does not imply any difference between "saying" and "speaking". And (ii) is ambiguous between the meanings "catching" and "chasing" -- the perfective pojmat'P cannot be used in a habitual sentence.

35 In the Bulgarian example, the verbs also differ with respect to tense, to be sure: izlizax is an imperfect, sreštnax
an aorist. But in 2.6 it will be argued that in this case the
tense opposition merely copies the aspectual distinction.

<Ch 1> 36 This definition seems to be applicable only to the
"existential" variety of "simple denotation" (3.3.2), at any
rate.

37 This useful division is presented in Leinonen (1978).

38 The Bulgarian equivalent ?Toj napisa(P) kniga snošti would
naturally be none the better.

39 Some Slavic languages allow perfective verbs to be used in
the historical present. See 3.2.4.

40 Commenting on his example, Stankov argues that the perfec-
tive aorist presents the action "in a 'condensed' form, as an
action with clearly outlined limits and without any inner
development" ("v 'sbíti' vid kato dejstvie s jasno očertani
graniči bez kakávto i da e vatrešen razvoj"). Here, the mention
of "limits" is on the right track, but I think the idea of the
speaker canceling the inner structure of a long event is again
a circular "as if" argument. -- Incidentally, Magellan did not
sail round the Earth; only one of his ships did, Magellan
having been killed during the voyage. Yet sentence (13) is
generally held to be true. The relation of a sentence to its
denotatum cannot be conceived of too mechanistically.

41 The grammar is not clear at this point. Obviously the idea
is that a moment is necessarily a bounded interval.

42 As a general rule, everything said in aspectology has
already been said by somebody other (well, almost everything, I
hope). I do not claim that de Saussure was the absolutely first
person who formulated the meanings of aspects like this. Isa-
čenko (1962: 347-348) and Rassudova (1982: 5) attribute the
first formulation on these lines to Emil Černý, a Czech philol-
ogist who worked in Russia in the past century.

43 Here belongs also Andrejčin's (1938: 8-9, 15) definition of
Bulgarian aspect: the perfective presents the action "syntheti-
cally", the imperfective "analytically".

44 Bondarko (1983b: 107) has recently begun to call them
"functions", abandoning the notion of PAM.

45 It would be, however, wrong to claim that linguists de-
scribing French have universally adopted the aspectual point of
view in this question. Weinrich (1964) denies the usefulness of
the whole notion of aspect. On the other hand, some French
linguists use the term "aspect" in a very broad sense to com-
prise various kinds of phenomena.

46 As will be proposed in 3.1.2, the Slavic imperfective
denotes states and processes. The English progressive only
denotes processes, which is why stative verbs do not usually
appear in progressive tenses. And contrary to the Slavic imper-
factive, the English progressive cannot denote habituality
because habituality is a state.

<Ch 1> 47 Verkuyl's (1972) Dutch examples are instructive in this respect.

48 A grammatical category can be either inflectional or classificatory. Cf. the discussion about aspectual pairs in 1.4.2, and Bulygina (1980).

49 The passive is formed either combining the auxiliary sām 'to be' with the passive participle of the verb (as in English), or with the help of the reflexive pronoun se. These two constructions do not always have the same meaning and could be considered different voices. Contrary to Russian, the reflexive passive can also be formed from perfective verbs.

50 The literal translation of otglogolno sāštstvitelno would be 'deverbal noun', but it is more consistent to use this name for all nouns derived from verbs.

51 Janakiev (1977) contains some interesting observations about the stylistic role of finite verb forms in Bulgarian. In colloquial language, their percentage in running text is around 25 (p. 185). According to Janakiev, popular Bulgarian authors are characterized by a percentage approximating that of the colloquial (being at least above 17 or 18, p. 226). One writer with a high "verbal temperature", as Janakiev calls it, is Jordan Radičkov (p. 209).

52 I must also mention two morphological monographs which I have not consulted and which therefore are not included in the Bibliography: Petar Pašov, Bălgarskiyat glagol, I: klasifikacija, vidooobrazuvane, slovoobrazuvane, Sofija 1966; and T. V. Popova, Glagol'noe slovoizmenenie v bolgarskom jazyke, Moskva 1975.

53 But notice that /vv/ is a permitted sequence in the formation of "synthetic conditionals" (cf. 4.1).

54 Maslov (1963: 68) reports that there are some 80 ungraded verbal stems that are perfective or biaspectual.

Chapter 2

1 Znaja has, however, an obsolete (?) aorist form znàjajax / znajax. For its past participles, see 4.3.

2 For imam, see also 3.2.3. Another verb in which the distinction between the aorist and imperfect may be disappearing is iskam(I) 'to want'.

3 Galton's Serbo-Croatian example is worth citing: Ima ljudi kojima su dati traktori i oni ih voze, a nemaju upoště položen vozački izpit 'There are people who have been given tractors and they drive them, but they haven't taken a driving examina-
tion at all' (lit. "they don't have the driving examination taken at all").

<Ch 2> 4 For an interesting survey of the Balkan background of this construction, see Fiedler (1972). In Macedonian there are also other cases in which the past participle passive of an intransitive verb can be used with an active meaning (Galton 1976: 272).

5 Or also: 'I have had two pairs of trousers bought.' A similar reservation has to be made for the other translations, too.


7 Šte vzemex is marginally possible in Bulgarian, too (Maslov 1981: 239; Gramatika 1983: 345).

8 The concept of "pattern model of explanation" (see 1.2.3) should not be understood so that circular explanations are legitimate. The pattern must consist of interdependent facts, not of interdependent concepts.

9 The notion "context" comprises not only syntactic contexts but also particular combinations of grammemes in the word itself. Otherwise we could not say that "the conditional mood neutralizes the feature <PAST>".

10 According to the Academic Grammar (Gramatika 1983: 245-246), Štjax da bāda + PPP is only a past future, and the past future perfect is expressed with šte sām bil + PPP. Insofar as the latter form exists (no examples are given in the grammar), it can hardly have this meaning because it contains no marker of <+PAST> at all; it rather looks like an emphatic inferential perfect (see 4.3). The grammar of Andrejčin, Popov, and Stojanov (1977: 252) lists štjax da bāda + PPP for both meanings. Probably the passive form of the past future perfect is a marginal or even purely theoretical form anyway.

11 Kjetil Rå Hauge (personal communication) has pointed out that the question ti došāl li beše v 7 časa? 'had you arrived at seven o'clock' seems to only have the latter interpretation ('had you come by seven o'clock'). The adverbial can here be only linked with the auxiliary beše, not with the focused main verb.

12 Comrie (1976: 72) mentions the same view, but without references.

13 Including the instances in which the difference is only due to a shift of stress.

14 Galton points out that the Macedonian sentence
(i) Toj tamu veke živeše, koga bev ušte dete.
   'He used already to live there when I was still a child.'
does not exclude the possibility of his still living there now.

15 Stankov (1969: 6) calls non-boundedness "neprekrenost na
dejstvieto" ('continuity of the action'). This semantic feature characterizes those tenses in which the point of reference (orientacionnijat moment) coincides with the point of event.

<Ch 2> 16 Maslov (1959: 161) and Calton (1976: 173) reject the characterization of the imperfect as "the present in the past" because a past reference point cannot always be shown. Galton gives the following Macedonian example:

(i) Vo ednata raka toj go držeše čekanot so koj pred toa ko-veše nekakvi stari penčinj

'In one hand he held the hammer with which he had just been hammering some old soles.'

The case in point is the second imperfect koveše 'had been hammering'. This is an instance of an imperfective replacing a pluperfect, which I presume is as normal in Macedonian as in Bulgarian (see 2.2.5). As for the reference point, it is clearly indicated by the adverbial pred toa 'before that'.

17 It seems that the imperfect is often considered to be the problematic point and the meaning of the aorist is taken for granted. I am indebted to Petar Pašov for pointing me out that it is the aorist whose position must be clarified.

18 Certain qualifications are necessary here. When perfects are used as carriers of certain modal values (mainly inferentiality -- see 4.3), they can even form the main line of a (short) narrative. But basically the aorist (in the indicative or reported mood) is the main narrative tense in Bulgarian.

19 Cf. Needham (1975: 68ff.).

20 This does not mean that the aorist has an R: the notion of "occasion" will be clarified in 2.3.2. -- The example is further complicated by the fact that the perfect and aorist do not represent the same "evidential modality". Sentence (19b) also implies that the speaker was an eyewitness of the theft. If he or she was not, but cannot use a reported aorist, either, (19a) has to be employed, irrespective of the nature of the time reference; then the perfect in this sentence has an inferential interpretation (see 4.3).

21 The following discussion makes it clear why this one of the three interpretations of the future in (v) is the most relevant here.

22 It is not always the case that in the complement clauses the two tense alternatives have identical meanings, as sentence (22) showed. Stankov (1966: 63) also suggests that in a narrative, the forms observing consecutio represent the point of view of the author, and the simpler tenses that of the heroes.

23 Logically the imperfect should become E simul R before R but as this is clearly contradictory, I assume that R' must be used in the substitution. We could have done the same thing in (xi) so as to distinguish the perfect (E before R simul R') from the aorist, but I suppose these kind of distinctions would have been too fine for most purposes: the present tense would have appeared as E simul R simul R'.
<Ch 2> 24 This section tries to develop some of the ideas presented in Lindstedt (1983). For the general theory of the perfect, see McCoad (1978) and Comrie (1976: 52ff.). The Bulgarian perfect is discussed in Andrejčín (1976b, 1978: 199ff.) and Stankov (1969: 88–93), among others.

25 In many languages the perfect tense (or the past tense used with a perfect meaning) of certain verbs has begun to denote the mere resultant state without reference to any prior event (Comrie 1976: 57; Lindstedt 1983: 256, footnote 2). A case in point is the Russian Ja očen’ uстal(P) 'I am very tired', lit. 'I have gotten very tired'. Here Bulgarian would use an adjective: mnogo sǎm umoren.

26 Nowadays znæeli(I) sa (with an imperfect-based past participle) would be the usual form instead of znajæli(I) sa (where the participle is aorist based; see 4.3).

27 The inferential interpretation of the perfect is an exception: here the modal meaning really cancels part of the temporal meaning (see 4.3). Another (minor) exception are some strongly expressive cases like the following:

(i) Kupila(P) sǎm meso, sgotvila(P) sǎm mu go, složila(P) sǎm go na masata da jade(I) i toj pak nedovolen.

'I've bought meat, I've cooked it for him, I've put it on the table for him to eat, and he's still not satisfied!' (Stankov 1981: 54; cf. Gramatika 1983: 325)

But it is only shorter episodes that can be narrated in such expressive forms: after some more perfects the text would soon lose its breath.

28 I prefer to call the perfect a tense because it expresses time reference (though of a complex type, as this section attempts to show) and is not connected with such denotative properties as are typical of aspect (3.1).

29 Note that existential perfects are mostly found in interrogative and negative sentences. When used in positive declarative utterances they are often immediate answers to questions (see 3.3.2).

30 The Bulgarian equivalent of occasion would be slučaj, which also means 'case' (not in grammar), 'instance', and 'opportunity'.

31 For the definition of "course of events" in the framework of what is called "situation semantics", see Barwise & Perry (1981: 669).

32 Spears (1974) analyzes habituals in terms of occasions, rather than in terms of moments. He, too, seems to take "occasion" as a pretheoretical notion that need not be precisely defined.

33 Cf. also (i) in footnote 27, though (43) does not share its expressiveness.

34 Literally 'I learned' -- a further case in point!
35 This paragraph owes much to a discussion with Petar Pašov.

36 The inferential interpretation is much less developed in the pluperfect than in the perfect. It can be considered a variant of the resultative pluperfect.

37 There is one exception: when a flashback is introduced, the pluperfect can be employed to mark the change of the topic period. But after that the narrative continues in preterite tenses, which now refer to the new topic period.

38 It is Galton's habit to be overly critical towards other scholars' proposals, and to mix thorough descriptions with mere speculations in his own explanations. Although this is not the place for a book review, I suppose many aspectologists will agree with me that Galton's book is both very exciting and very frustrating.

39 Kato is here considered in its temporal meaning only. The future marker is also excluded after the complementizer da, even in cases where it is sometimes called a "particle". Predi da 'before' always takes the present tense. For dokato 'while, until', see 2.4.3.

40 Similarly in the ordinary future: toj šte si kupi knigata, kojato si izbere 'he will buy the book he chooses' (Stankov 1969: 27).

41 "... stava duma za edin ili njakolko slučaja između poveće vazmožni." Andrejčin shows that this cannot be a valid rule for all types of subordinate clauses, but unfortunately he fails to consider relative clauses as a separate group.

42 One instance of this can be found in (55), in the sentence beginning "gospodin generalnijat direktor...". For other examples, see Maslov (1959: 293).

43 Actually Andrejčin has found this sentence in the form kogato šte bādat obnarodvani, which he considers wrong from the normative point of view. Perhaps there are some cases in the colloquial language in which the future is permitted even in temporal clauses, after all.

44 As quoted in Andrejčin (1938: 41); for further examples, see e.g. Maslov (1959: 271) and Stojanov (1977: 373). Cf. the similar phenomenon in English: The baby-sitter said he would wait till the parents came home.

45 The source of this example is "Spomeni za Vapcarov", included in Nikola Vapcarov's Izbrani tvorbi (Sofija 1976).

46 Ascriptive structures are those of the type He is handsome, She is a lawyer (Lyons 1977: 469).

47 As defined in 3.1.2.

48 The term "scheduled" is taken from Forsyth (1970: 73, 149-
who discusses the corresponding phenomenon in Russian.

<Ch 2> 49 Remember I do not assume that the members of an asp ectual pair are necessarily members of the same lexeme.

50 Cf. Forsyth's (1970: 48) discussion of the Russian naxo-
dit’(I) / najti(P) 'to find'.

51 Such situations are called events (3.1.2). "Situation" is a
general term for anything a sentence can denote (or an utter-
ance can refer to).

52 Seljakin and Schlegel (1970: 63ff.) have developed a simi-
lar model in which aspect signals the relation between E and R
(the latter is called Bezugsmoment in their system). They,
however, do not envisage the possibility of there being no R in
aorist-like temporal reference, but rather assume that R is
then placed immediately after the situation itself. Their model
is briefly discussed in Leinonen (1982: 154ff.).

53 For more references on this discussion, see Hult (1981:
148, footnote 4).

54 There is more to the Slavic perfective than mere "bounded-
ness", however, because the aorist and the perfective presup-
pose slightly different concepts of event. This will be the
topic of section 3.3 below.

55 Even this traditional formulation must be regarded as
anachronistic. In fact there is only one preterite tense in
Sorbian, and it is a merely morphological fact that in the 2nd
and 3rd persons singular the Imperfective verbs take the ending
-ëše (in Upper Sorbian), while the perfectives take the zero
ending; in the 1st person singular and in all the dual and
plural persons the endings are identical (Michažk 1974: 497;

56 I.e., in the future time, not in the future tense: morpho-
logically, izliza is a present tense (cf. 2.4.1).

57 Cf. Comrie's (1981: 67) observation that the imperfective
"has much in common with relative present tense".

58 In the appendix to Dahl's article, the following languages
are reported to allow some kinds of perfective forms in the
reportive present: Tunisian Arabic, Amharic, Japanese, Geor-
gian, Kurdish, Punjabi, Persian, Oneida, Estonian, Finnish, and
Hungarian. Czech belongs to his sample but is marked negatively
with respect to this feature in the appendix; this probably
means that the "scenic present" (cf. below) is not taken into
account. -- Note, incidentally, that the "reportive present"
has nothing to do with the Bulgarian "reported present", i.e.
the present tense in the reported mood.

59 Galton (1976: 303, footnote 10) uses play-by-play accounts
to prove that there are no aspect distinctions in English. This
is not justifiable: even very similar grammatical categories of
two languages need not cover exactly the same range of inter-
pretations.

60 Note, however, that this example is originally from a translation of Maupassant, who used to employ the French *imparfait* for special stylistic purposes (Weinrich 1964: 172ff.). But Stankov does not question the validity of these sentences as examples, so I do not think that there has been distorting translation interference. The appearance of such reportive imperfects is rather due to the special type of discourse in these sentences, viz. "free indirect speech" (German "erlebte Rede", French "le style indirect libre"; cf. Banfield 1982 and Weinrich 1964: 234).

61 Cf. Galton's Polish example (p. 276)
   (i) Ta książka jest obecnie czytana(I) w szkołach.
   'This book is now read at schools.'
where the time reference is clearly *simul R*.

Chapter 3

1 "Linguistics is a science which studies not only language but also those aspects of thinking that are reflected in language" (my transl.). Recall that a conceptualization of reality can be used to represent reality itself (1.2.2).

2 In the terminology of Soviet functional grammar, aspectuality is a "functional-semantic field" ("funkcional'no-semantiche skoe pole"). For definition, see Bondarko (1983b: 40).

3 The term "situation class" should also be understood to cover distinctions made according to quantitative characteristics, such as semelfactivity vs. iterativity (cf. Hockett 1958: 237; Maslov 1973: 73-74). My definition of aspectuality is not meant to be in direct contradiction with definitions based on such concepts as the "course" and "temporal distribution" of the situation (Russian "protekanie i raspredelenie dejstvia vo vremeni", e.g. Bondarko 1983b: 76).

4 The use of the term "situation" in this sense in linguistics goes back to Reichenbach (1966/1947: 15); cf. also Lyons (1977: 483). Reichenbach gave "state of affairs" as an alternative term; it is now used in Dik's (1978: 32) functional grammar, and also by Bulygina (1982) in the Russian form *polozhenie veschej* or *polozhenie del*. We will reserve "state of affairs" for another use (see 3.3.1).

5 Physical objects are first-order entities. Lyons's classification is influenced by the philosopher Strawson. -- Vähämäki (1984: 71) has recently compared Lyons's trichotomy with Karl Popper's (1979: 151ff.) pluralist ontology consisting of World 1 (the physical world), World 2 (the mental world), and World 3 (the products of the human mind, including language). He argues that running, for instance, only exists in World 2. Were he right, there could not be genuinely denotive aspect theories. But equating Lyons's and Popper's trichotomies is simply wrong
and does not make justice to either; and Vähämäki's ontology, whereby in the objective physical world there exist only objects and properties but no events, contradicts the common sense that language encodes.

<Ch 3> 6 I.e., situation tokens are located in time (and indirectly also in space; see Vendler 1967: 144).

7 References will be to this later version.

8 In the framework of Dik's functional grammar, his classification has been further developed by other scholars. I will not review this work here.

9 In Russian and Bulgarian grammars the term dejstvie is often used so broadly that it is in fact equivalent to our "situation".

10 I assume Bulygina has just this reading of the sentence in mind. There are event readings as well, e.g. 'He has been to his country cottage'.

11 Even the grammar may of course be indeterminate. Carlson (1981: 39) points out that in English there is an intermediate class between Vendler's "states" and "activities" -- standing, for instance (cf. At seven o'clock, the caravan stood / was standing in its old place). Standing belongs to what we called "controlled states". In Chinese, some states that depend on the subject's will are classified as actions (Maslov 1973: 74, footnote 6).

12 There is pragmatic knowledge involved: apples are normally eaten one by one. Cf. she is eating mushrooms, where the mushrooms may have been chopped up so that there are no longer separate fungi to be eaten one after another.

13 This classification is made according to the predel'nost' of the verbs. For the meaning of this term, see below.

14 To die and similar verbs figure as borderline cases in quite a few aspect studies (cf. Koschmieder 1932: 59; Lyons 1977: 712-713; Bulygina 1982: 67-68).

15 More exactly: if the progressive can be used, it only has an iterative reading.

16 Predel'nyj is sometimes rendered as "terminative" (in Thelin's works, for instance), but "terminative" is an interpretation rather than translation of the Russian term.

17 A distinction similar both to Garey's telic / atelic and Vendler's activity / accomplishment was first formulated by Aristotle (Dahl 1981: 80; Bulygina 1982: 62, footnote 64).

18 Seljakin (1983: 7), adhering to the semantic (Maslov-type) definition of Aktionsart, calls these kind of derivatives "modificational verbs". He also uses the term "modifying Aktionsarten" ("modificirujuščie sposoby dejstvija").
More exactly: a non-prefixed stem that qualifies as perfective in word formation: the Russian determinate verbs of motion (such as idti (I) 'to go, to walk', exat' (I) 'to go, to ride') count as perfective stems in lexical derivatives. Incidentally, the claim that local prefixes derive new lexemes rather than procedurals can be supported, in Russian, with the very fact that in perfective derivatives the local prefixes are attached to determinate stems, as in vojti (P) 'to enter' (imperfective *vchodit' (I)); the true procedurals are of the type *poxodit' (P) 'to walk for a while'.

Cf. Dahl (1984: 18-19): "the Slavonic-type aspect categories are not proper inflectional categories but rather what could be called grammaticalized lexical categories" (orig. emphasis).

I.e., grammemes that express this concept besides also possibly expressing something else.

DeLancey (1982: 180) thinks that aspect as a point of view originates in the young child's concrete egocentric point of view.

Givón (1982: 135ff.) reports that in Bemba (a Bantu language), mailo means 'yesterday' and 'tomorrow', bulya-bushiku both 'the day before yesterday' and 'the day after tomorrow'. The tense system of Bemba is likewise arranged symmetrically around the present. Of course facts of this kind are rather exceptional in the world's languages; they only prove that it is possible to have a unified concept of "non-past" even in adult language.

In Lindstedt (1984), the phenomenon is called "nested aspects". But since "aspect" only means a grammaticalized opposition, "aspectual nesting" is a better term. The present version of my model is also more developed in some other respects.

For an application of Timberlake's scheme, see Leinonen (1984).

In T. Itkonen's (1976) description of Finnish aspect, the "resultative-irresultative" (i.e. telic) verbs constitute a central group.

In other contexts, *ebasileuse* and il fut roi mean 'he became a king'. Then reigning is conceived of as a special kind of situation where aspectual pairing is possible, analogous with the type *videt' (I) / uvidet' (P) mentioned in 3.1.3. This type would in fact require a fourth symbol of aspectual character besides (B), (O), and (X).

The English translation also has grammatical readings, but the Bulgarian sentence does not.

Thelin's (1978: 57) remark about the parallelism between
the Bulgarian imperfective aorist and the Russian delimitative and perdurative procedural is only approximately true, for there is no such translation equivalence. The Bulgarian imperfective aorist is no closer to the Russian than to the Bulgarian procedural of that type.

<Ch 3> 31 Galton (1976: 274) reports that in Serbo-Croatian, the past gerund cannot be freely used in the imperfective aspect without an expression of duration, e.g. čekavši(I) dva sata, on je otišao(P) kući 'having waited for two hours, he went home'. The notion of boundedness, a feature common to the perfective aspect and duration adverbials, is certainly of use here. Another case in point is Englund Dimitrova's (forthcom- ing) observation that although primary imperfectives, being non-bound, cannot normally be used in the præsens pro futuro (2.5.2), they sometimes become possible when connected with a duration adverbial.

32 The English for and in have other temporal uses that are not meant to be subsumed under these two cross-language types. In the sentences dojdox za edna sedmica = I came for a week, the temporal adverbial does not belong to the "in"-type though the Bulgarian preposition is za, nor does it belong to the "for"-type though the English preposition is for. (Cf. E. Andersson 1977: 45-46 on types of temporal adverbials.)

33 The prefixes in prekaram(P) and prodalza(P) are not procedural prefixes from the synchronic point of view. -- Compare also Heinämäki (1984: 161-163) on the aspectual behavior of verbs like pitää 'to keep' in Finnish.

34 Cf. also the following Russian example:

(i) Nu, puskaj poplačet(P), a ja pošu posužu(P).
   'Well, let her cry a little, I'll sit in the meantime.'

(Čexov)

35 The imperfect here refers to a situation anterior to the primary R and has to be rendered with a pluperfect in English. See 2.2.5 for an explanation.

36 In older language the imperfect could be used to carry the narrative forward (cf. Dejanova 1966: 36).

37 In Russian the use of the perfective preterite to express habituality is much more marked even in subordinate clauses (Forsyth 1970: 190-193). This must be partly due to the fact that since there is no aorist / imperfect opposition in Russian, the outer openness cannot be expressed morphologically. -- In Bulgarian grammars it is usually said that, in such subordinate sentences, the perfective expresses anteriority, the imperfective simultaneity with respect to the action in the main clause (Andrejčin 1978 (1944): 185; Stankov 1976d: 20; Gramatika 1983: 294). This rule does not take account of the influence of the verb's aspectual character and the semantics of the conjunction used; nor does it explain why we often can substitute imperfective for the perfective: cf. (51) and (55).

38 There is also a single-event reading: 'we had to wait,
whereas the teacher did not come' -- if a suitable context can be found for it.

<Ch 3> 39 There are still other possible wordings, because the clitic go can also be placed after the verb (all the four sentences then become somewhat more expressive).

40 In Russian it is possible to say: On každomu pomožet(P) 'he helps everybody' (Rassudova 1982: 84). But the morphological present pomožet(P) is normally interpreted as a future; this sentence is rather an example of a modal interpretation of the future tense (cf. 4.2), for the perfective present is not the standard way of reporting a habitual event in Russian.

41 The present tense alone cannot act as an unambiguous opener in those languages (such as Czech) in which the perfective present form can also be interpreted as a perfective future with a single-event reading. Moreover, when the habitual perfective present is paralleled by a habitual perfective preterite (Mönnesland 1984: 66ff.), the preterite tense cannot act as an opener at all, because the aorist / imperfect opposition is only found in Bulgarian, Macedonian, and (marginally) Serbo-Croatian. Adverbials and the context must then convey the information of the outer openness of the situation.

42 Ivančev speaks here of "homonymy". This is not a felicitous formulation, for homonymy is associated with randomness, whereas the coincidence of types 1 and types 2 has a systematic character; in fact, there may be no pure representatives of type 2, as sentences (64a) and (65a) show. "Syncretism" would perhaps sound better.

43 I.e., 'is on a resting position', not 'utters statements that he knows to be false'.

44 S časove 'for hours on end' might be considered an overt bound, though it is somewhat indeterminate.

45 There is a covert B in (69) if its reading is, say, 'it often happened that Moses found water in various areas'; I would then analyze the sentence as O(B(O(B))). If often and in various areas have an identical scope, (69) is simply O(O(B)) = O(B). Notice further that Heinämäki is not primarily discussing this sentence in her article, but rather its Finnish equivalent Mooses löysi usein vettä erilaisilta alueilta; but, as far as I can see, the possible analysis do not depend on which language is chosen.

46 This is not the only verb type in which we would like to assign two layers to the aspectual character. A verb like migam(I) 'to wink' denotes an open series of momentaneous events -- so, it rather means 'to be winking'. We could describe its aspectual character as O(B), with two layers. But this would not be different from the O(B) structure of migvam (I) 'to wink', a secondary imperfective derived from the momentaneous migna(P) 'to wink (once)'. Because migam(I) is not confined to the habitual use as is the case with migvam(I) and other O(B) verbs we have dealt with, I would rather describe it
as a simple open process 0.

47 Obaždam se / obadja se is a versatile verb, and a host of other translations than the one given here would be possible. But this one suffices for the present discussion.

48 Timberlake (1982: 310), too, suggests that the notions of "operator" and "scope" are relevant in describing aspectual structures of sentences. But it is the various aspectual parameters, such as "iterativity", that he conceives of as operators with scopes; he does not envisage the possibility of assigning scope to the markers of aspectuality themselves, as I consider to be more natural.

49 In Serbo-Croatian, there is an imperfective aorist but no perfective imperfect, but this is due to the fact that the loss of imperfect has been faster than the loss of the aorist has (cf. Maslov 1980: 60).

50 "World 1" in Popper's (1979/1972) terminology.

51 The same notion was used in 2.3.1 to describe the meaning of the perfect tense. -- Note that the initial state of affairs is sometimes only presupposed: a narrative may begin in medias res without an explicit Einleitung (Galton 1976: 146; Maslov 1980: 47ff.).

52 There is also a delimitative interpretation of this verb, discussed in 3.2.2 above. Examples (84a) and (84b) are dictionary examples, (84c) has been checked with informants. Of course these are all completely normal sentences.

53 I owe most of this explanation to the participants of the postgraduate seminar in general linguistics at the University of Helsinki, especially to Lauri Carlson.

54 This is based on the medieval perfecto procedit, imperfecto insistit oratio. Oratio 'discourse' is too general a term; and it is an idiosyncrasy of Latin that the perfect and aorist meaning are expressed by one and the same tense.

55 Question (87) would of course be answered affirmatively even if the person asked had seen the movie several times; it only implicates a single-event reading, and rather weakly at that. But it certainly excludes habituality -- it is not normally interpreted as 'have you been in the habit of seeing this film?'

56 Forsyth does not apply the notion of neutralization in such a crude fashion, to be sure, for he gives a detailed description of the contexts of neutralization. But I do not think that all of the aspectual meaning in such sentences can be assigned to the context only -- the imperfective verb makes a positive contribution of its own to the aspectual structure.

57 The impersonal use of može, as in (94), is much more typical of deontic and epistemic sentences than of sentences
expressing ability, but this is not a strict rule (Tomova 1983).

<Ch 3> 58 But habituality complicates the picture:
(i) V ètom kinoteatre nel'zja pokazyvat' (I) Širokoièkrannyè fill'my.
'In this cinema, wide-screen movies cannot be shown.'
(Mustajoki & Pirinen 1979: 49)
The ability reading derives from the inner boundedness of pokazyvat' (I) 'to show'.

59 Cf. the very similar example in Forsyth (1970: 86):
(i) V ètoj porternoj ja obdumyval(I) svoju dissertaciju i
napisal(P) pervoe ljubovnoe pis'mo k Vere. Pisal(I) karandašom.
'In this tavern I pondered my thesis and wrote my first
love letter to Vera. I wrote it in pencil.' (Čexov)
The following comments largely apply to this and Forsyth’s
other Russian examples, too.

60 Hopper (1979: 219) says that examples of this kind "have in
common the presupposition of the action itself and an assertion
only that the action itself did (as opposed to 'did not') take
place". I suppose this means that the type of the event is
presupposed, and the utterance focuses on whether an event of
the type presupposed took place or not. I do not think such a
distinction is fully justified; it seems to boil down to the
distinction between an isolated event qua an event type, on the
one hand, and an event token, on the other.

61 The verb xodja could be used, too, but since it is not a
simple question what its aspect is, I will not employ it in
this example (see 3.3.3).

62 The following passage from Dimov is slightly more difficult
to explain:
(i) Kak ne be zabeljazal(P) tija oči dosega! ... Toj si
spomnil(P,N), če gi be viždal(I) prez ljatoto ...
'How could it be that he had not yet noticed those eyes!
He remembered that he had seen them in the summer.'
But notice that be zabeljazal here implies a result, while e
viždal refers to an event that had no results -- "he" only saw
the eyes but did not become aware of their extraordinary
quality.

63 Cf. Bondarko (1983b: 167-170) on the perfect function of
the Russian "generalized-factual" imperfective. -- According to
Stankov (1976d: 83), the perfective is also preferred in Czech:
Kde jste si to koupili(P)? 'where have you bought that?'. There
is no perfect / preterite opposition in Czech, either, but of
course I do not claim that any Slavic language that has lost
this distinction must compensate for it with IIE’s. It is only
a possibility, utilized in Russian but not in Czech.

64 A possible example of a future IIE:
(i) Šte davaš(I) li učebnikata na sáučeničkata si?
'Are you going to give the textbook to your classmate <or not>?'
(Stankov 1980: 119)
(Admittedly, this can also be interpreted as a conative imperfective.) The futural IIE is a mirror image both of the existential perfect and of the IIE-aorist, though this is perhaps an instance of vagueness only rather than ambiguity (cf. 2.2.6 and 2.6 on time reference in the future tense).

<Ch 3> 65 Sreşta(I,A) could also be a third-person form: 'But didn't (s)he meet...'

66 This is because p => q entails not-q => not-p. The neutralization of the accusative / partitive opposition in Finnish negative sentence was explained by Leino (1978: 90) in a similar fashion.

67 The situation is not clear-cut in English, either: in American English we have variation between did you read it already? and have you read it already?.

68 For this notion, cf. Levinson (1983: 127ff.) and the references there.

69 Otivala li si is possible as an expressive IIE: Otivala li si v Moskva bez da znáš ruski ezik? 'did you <really> go to Moscow without knowing Russian?'. This example, and the examples (124) and (125) below, I owe to Petár Pašov.

70 As noted by Marja Leinonen (personal communication), an evolution parallel to xodja is found in the Finnish verb käydä. It now chiefly means 'to visit', but it used to also mean 'to walk', as it still does in some fixed expressions.

71 Morphologically the verb forms could be historical presents, too. But Aronson has certainly checked the context in order to see that they really are aorists.

Chapter 4

1 The last sentence is in the reported mood. Its content shows that it most probably refers to the past, but I have given alternative translations for the sake of completeness. For now on I will, however, only give one translation if the original context of an example sentence shows what temporal plane is referred to.

2 Weinrich (1964: 135).

3 Cf. Ultan (1978: 104). -- Maslov (1959: 259; 1981: 258, footnote) cannot be right in considering the conditional imperfect as a separate form homonymous with the ordinary imperfect. Homonymy is associated with randomness, whereas the cross-linguistic parallels attest to a conceptual connection between the grammatical meanings in question. This need not mean, however, that these meanings should necessarily be regarded as
interpretations of a single grammatical meaning in each language.

<Ch 4> 4 Instead of quoting the form for the first person singular (možex), as usual, I quote the third person singular, because možeše can sometimes be used in all the persons (as in (7)), especially if it expresses epistemic or deontic modality, and not ability (Tomova 1983).

5 As noted in 2.4.1, šte can be considered to be an auxiliary even when it is not conjugated in persons and does not take da between it and the main verb.

6 The short story Taralež, which is in fact the source of practically all examples from Radičkov in this study.

7 All men must die might be a counterexample; but there is also something epistemic to it.

8 Would have been gone is perhaps the closest equivalent.

9 The oldest attested conditional in Slavic is the bimba-conditional, whose auxiliary apparently goes back to an Indo-European optative form (Vaillant 1966: 95). But it was soon replaced by the byx3-conditional, in which byx3 is the aorist of byti 'to be'. The past participle of the main verb did not make the whole form a pluperfect, because the past participle was also used in the analytic future formed with bodě 'will be, will become'. (Gošćan bases his hypothesis on A. Musić’s earlier work.)

10 This use can be compared to a similar function of the Russian perfective present-future (Forsyth 1970: 174-176; Leinonen 1982: 112).


12 Among the errors not mentioned by Kucar is Roth's suggestion (p. 152) that since the frequency of the reported forms is positively (albeit not strongly) correlated with the education of the informants, those forms are typical of "elaborated code" (as opposed to "restricted code"). Bernstein’s "codes" should not be so simplistically equated with "registers" or "styles".

13 Gerdžikov (1982) suggests that the verb can have different modal categories, the traditional mood being only one of them. According to him, the opposition of reported and non-reported forms exemplifies a category he calls modus dicendi actionis, whereas mood is called modus actionis. But the latter term is too close to "Aktionsart", which is something entirely different (3.1.4); and I cannot see why the imperative, for instance, could not also be called one modus dicendi actionis.
Akatsuka McCawley (1978) uses a somewhat similar trichotomy in her description of the epistemic implications of the Japanese complementizers.

15 Friedman (p. 114) seems to think that the tendency to omit the auxiliary is strongest in complements of verba dicendi, but actually that is just the context in which the use of the reported mood is facultative, even according to normative grammars. Roth (1979) commits a similar mistake, as Kucarov (1981) shows. -- It is, of course, possible to regard the whole reported mood, together with the "inferential forms" or "secondary perfects" (cf. below), as a unitary system of "secondary tenses" (Feuillet 1980), and to account for the omission (or perhaps insertion) of the auxiliary in the third persons with a largely context-dependent rule within this system. Ivančev (1976b, 1984) has argued quite convincingly that the auxiliary in the third persons of the indicative perfect is not a direct continuation of its counterpart in the Old Bulgarian perfect, but has only been secondarily restored. Feuillet's and Ivančev's analysis is very attractive, because it would nicely simplify the verbal paradigm, but it has its cost: there would be no perfect, only a "secondary aorist". And I still think that the temporal properties of the perfect are not identical with those of the aorist -- cf. the discussion of (39) below.

16 The perfect refers to past situations and can therefore be called a past tense, although it is not a <+PAST> tense in our feature system.


18 "Mogal e v minaloto, njama smisal da se ukrepjavat." Other explanations were, for instance, along the lines "specific occasion" vs. "in general", or "in fact" vs. "the Bulgarians' assumption".

19 The normal passive perfect would be e napraveno, which is homonymous with the present tense (see 2.1.3). But the inferential interpretation is more clearly associated with the alternative form e bilo napraveno.

20 As far as I know, these forms have not yet been described in the grammatical literature. They were mentioned by Petar Pašov in a lecture delivered at the University of Helsinki in May 1983.

21 Formally, xodel e can be compared with the English has been going. But the English form lacks just the interpretation which is typical of xodel e, viz. the inferential.

22 The normal pluperfect bjaža živeli would probably not be grammatical, either, because it is a <+PAST> tense with witnessed evidential value. But my data are not sufficient at this point; it is not clear whether the witnessed evidential value of the pluperfect pertains to its R (i.e., the results observed in its topic period) or to its E.
**APPENDIX:**

**REFERENCE TABLE**

_of Bulgarian verb conjugation_

xòdja 'to go' (bispasctual); vljàza 'to enter' (perfective);
glédom 'to look at' (imperfective).

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<tr>
<th>present</th>
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<tr>
<td>SG 1</td>
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</tr>
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</tr>
<tr>
<td>SG 3</td>
<td>xòdi</td>
</tr>
<tr>
<td>PL 1</td>
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</tr>
<tr>
<td>PL 2</td>
<td>xòdïte</td>
</tr>
<tr>
<td>PL 3</td>
<td>xòdjat</td>
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<table>
<thead>
<tr>
<th>aorist</th>
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<tbody>
<tr>
<td>SG 1</td>
</tr>
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<td>SG 2</td>
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<td>SG 3</td>
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<tr>
<td>PL 1</td>
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<tr>
<td>PL 2</td>
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<td>PL 3</td>
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<table>
<thead>
<tr>
<th>imperfect</th>
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<tbody>
<tr>
<td>SG 1</td>
</tr>
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<td>SG 2</td>
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<td>SG 3</td>
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<tr>
<td>PL 1</td>
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<td>PL 2</td>
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<td>PL 3</td>
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<table>
<thead>
<tr>
<th>perfect (masculine)</th>
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<tr>
<td>SG 1</td>
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<td>SG 2</td>
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<td>SG 3</td>
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<tr>
<td>PL 1</td>
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<tr>
<td>PL 2</td>
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<td>PL 3</td>
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</table>

<table>
<thead>
<tr>
<th>secondary perfect with imperfect stem (masculine)</th>
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</thead>
<tbody>
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<td>SG 3</td>
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<tr>
<td>PL 1</td>
</tr>
<tr>
<td>PL 2</td>
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<tr>
<td>PL 3</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>pluperfect (feminine)</th>
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</thead>
<tbody>
<tr>
<td>SG 1</td>
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<tr>
<td>SG 2</td>
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<td>SG 3</td>
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<tr>
<td>PL 1</td>
</tr>
<tr>
<td>PL 2</td>
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<tr>
<td>PL 3</td>
</tr>
</tbody>
</table>
(For the sake of conciseness, only forms of xodja and vljaza will be given in the remaining paradigm:)

| future | SG 1 | šte xodja | šte vljaza |
|        | SG 2 | šte xodiš | šte vlezesh |
|        | SG 3 | šte xodi | šte vleze |
|        | PL 1 | šte xodim | šte vlezem |
|        | PL 2 | šte xodite | šte vlezete |
|        | PL 3 | šte xodjat | šte vljazat |

(Negated future njama da xodja, njama da vljaza etc.)

| future perfect (masculine) | SG 1 | šte sām xodil | šte sām vljazāl |
|                            | SG 2 | šte si xodil | šte si vljazāl |
|                            | SG 3 | šte e xodil | šte e vljazāl |
|                            | PL 1 | šte sme xodili | šte sme vlezli |
|                            | PL 2 | šte ste xodili | šte ste vlezli |
|                            | PL 3 | šte sa xodili | šte sa vlezli |

(Or šte bāda xodil etc.; negated forms njama da sām xodil etc., or njama da bāda xodil etc.)

| past future | SG 1 | štjāx da xodja | štjāx da vljaza |
|            | SG 2 | šteše da xodiš | šteše da vlezesh |
|            | SG 3 | šteše da xodi | šteše da vleze |
|            | PL 1 | štjāxme da xodim | štjāxme de vlezem |
|            | PL 2 | štjāxte da xodite | štjāxte da vlezete |
|            | PL 3 | štjāxa da xodjat | štjāxa da vljazat |

(Negated forms: njamašē da xodja etc.)

| past future perfect (feminine) | SG 1 | štjāx da sām xodila | šjāx da sām vljazala |
|                                | SG 2 | šteše da si xodila | šteše da si vljazala |
|                                | SG 3 | šteše da e xodila | šteše da e vljazala |
|                                | PL 1 | štjāxme da sme xodili | štjāxme da sme vlezli |
|                                | PL 2 | štjāxte da ste xodili | štjāxte da ste vlezli |
|                                | PL 3 | štjāxa da sa xodili | štjāxa da sa vlezli |

(Negated forms: njamašē da sām xodila etc.)

reported present and imperfect (examples)
SG 1 feminine: xodela sām, vlezela sām
SG 3 masculine: xodel, vlezel

reported aorist (examples)
SG 1 feminine: xodila sām, vljazla sām
SG 3 masculine: xodil, vljazāl

reported perfect and pluperfect (examples)
SG 1 feminine: bīla sām xodila, bīla šām vljazla
SG 3 masculine: bil xodil, bil vljazāl
reported future and past future (examples)
SG 1 feminine: štjala sâm da xodja, štjala sâm da vljaza
SG 3 masculine: štjal da xodi, štjal da vleze
(Negated forms: njamalo da xodja, etc.)

imperative
SG 2: xodi, vlez
PL 2: xodete, vlezte

(old analytic) conditional (masculine)
SG 1 bix xodil bix vljazâl
SG 2 bi xodil bi vljazâl
SG 3 bi xodil bi vljazâl
PL 1 bixme xodili bixme vlezli
PL 2 bixte xodili bixte vlezli
PL 3 bixa xodili bixa vlezli

participles
active present: xodešt, -a, -o, -i; (not from vljaza)
active aorist: xodîl, -a, -o, -i; vljazâl, vljazla, vljazlo, vlezli
active imperfect: xodel, -a, -o, -i; vlezel, -a, -o, -i
passive past: from transitive verbs only, e.g. voden, -a, -o, -i
from vodja 'to take (someone somewhere)'.

gerund
: xodejki (not from the perfective vljaza)

verbal noun
: xodene (not from the perfective vljaza)
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ABBREVIATIONS USED:

AB = Aspect Bound
(de Groot & Tommola, eds., 1984)
Pomagalo = Pomagalo po bъlgarska morfologija. Glagol
(Pašov & Nicolova, eds., 1976)
SS14 = Syntax and Semantics, 14. Tense and Aspect
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