

---

INSTITUT FÜR SPRACHWISSENSCHAFT  
UNIVERSITÄT ZU KÖLN

---

**ARBEITSPAPIER NR. 40** (Neue Folge)

Recent Activity in the Theory of Aspect:  
Accomplishments, Achievements, or just Non-progressive State?

*Hans-Jürgen Sasse*

Juni 2001

ISSN 1615-1496

**Prof. Dr. Hans-Jürgen Sasse**  
Institut für Sprachwissenschaft  
der Universität zu Köln  
D-50923 Köln  
**ISSN 1615-1496**

© beim Autor

## 0. Introductory Remarks

It has become commonplace to introduce works on aspect with the remark that there is hardly another field in linguistics so much plagued by terminological and notional confusion<sup>1</sup>. The semantics of time has served as a playground for mental exercise to many generations of philologists, linguists, philosophers, and logicians, resulting in an impenetrable thicket of definitions, theories, and models. Yet there is no land in sight. While a detailed systematization of approaches to aspect is still lacking, the theoretical literature in this field keeps growing. About 20 major books claiming a comprehensive treatment have come to my attention during little more than the past half decade, not to mention the vast amount of shorter theoretical articles and the many descriptions of aspect systems in particular languages. Among these books are five that form the subject of this paper in a narrower sense, given that the present article originally started out as a combined review of these five works:

(1) Bertinetto, Pier Marco, Valentina Bianchi, James Higginbotham & Mario Squartini (eds.) 1995. *Temporal Reference, Aspect and Actionality*. Vol. 1: Semantic and Syntactic Perspectives. Torino: Rosenberg & Sellier.

(2) Bertinetto, Pier Marco, Valentina Bianchi, Östen Dahl & Mario Squartini (eds.) 1995. *Temporal Reference, Aspect and Actionality*. Vol. 2: Typological Perspectives. Torino: Rosenberg & Sellier.

(3) Bertinetto, Pier Marco 1997. *Il dominio tempo-aspettuale*. Demarcazioni, intersezioni, contrasti. Torino: Rosenberg & Sellier.

---

Acknowledgments: My deepest thanks go to Leila Behrens, Fritz Serzisko, Elvira Veselinović, and Pamela Perniss for reading and commenting on an earlier draft of this paper (the latter also for correcting my English style), and to Frans Plank for his inexhaustible patience. Thanks are also due to the audience of two talks on aspect in Canberra and Melbourne in 1999. Needless to say that I assume full responsibility for any mistakes or misinterpretations.

My apologies go to those authors whose contributions I have not fully appreciated here (both in the general parts and in the review sections of this paper). The whole area is so variegated that it is almost impossible to do justice to every facet of it.

<sup>1</sup> Complaints about terminological confusion are found as early as in Pedersen (1901:152); see also Jespersen (1924:286). Some more recent statements of this kind are quoted in Kortmann (1991).



(4) Hewson, John & Vit Bubenik (eds.) 1997. *Tense and Aspect in Indo-European Languages*. Theory, Typology, Diachrony. Amsterdam / Philadelphia: John Benjamins Publishing Company.

(5) Smith, Carlota S. 1997. *The Parameter of Aspect* (Second Edition). Dordrecht / Boston / London: Kluwer Academic Publishers.

In spite of the obvious overlap in authorship / editorship, there is no particular affinity among the five books under review or any common feature that ties them particularly closely together, except that they are fairly typical representatives of the current heterogeneous scene<sup>2</sup>. Taken together, they amount to a reading of approximately 1730 pages on every possible view on aspect.

Even if one is not at all keen on monocultures, it is clear that the obvious disunity in fundamental points of view makes the situation increasingly difficult for the "ordinary working linguist". It is getting impossible to keep up with the many different issues raised in the theoretical literature when, for instance, writing a chapter on aspect for a descriptive grammar of a language. As a result, a tremendous gap between descriptive and theoretical work has arisen. This has not gone unnoticed in the literature. There are several recent publications in which explicit attempts are made to bridge this gap, for example Bybee et al. (1994), Bache et al. (1994), Bertinetto et.al. (1995b), Smith (1991, 1997), Bhat (1999) and Breu (2000), all of them trying to add a typological perspective to aspect theory and to free it from its purely truth-conditional embedding, which was the dominant paradigm in the 70ies and 80ies. But again, these works are often themselves cast into specific theoretical frameworks, more often than not ignoring other approaches to the field if they do not fit their persuasions.

I will therefore avail myself of the opportunity of this review article by briefly sorting out the differences in the fundamental assumptions and theoretical primitives of the various approaches, in order to come to grips with the aspectological landscape. A general, chiefly historically oriented assessment is presented in the first part of this paper (see section 1). The second part is then devoted to a detailed discussion of the books under review against the background established in this survey (see section 2). At the end, I will try to draw some conclusions and hint at some directions

---

<sup>2</sup> This statement must be relativized with respect to two of these books (Bertinetto 1997 and Smith 1997), in which relatively rigorous versions of a bidimensional approach to aspect are proposed. Although these versions differ in many respects, their general attitude of assuming two independent components of aspectuality is similar. For details see 1.6 and section 2.



for future work with aspect in a descriptive and/or typological context (see section 3).

## 1. Theories of Aspect: A Brief Survey

### 1.1. Consensus and Disagreement

To establish a general basis from which the discussion of aspect theories can proceed, we will begin by enumerating a few points where consensus and disagreement manifest themselves most conspicuously in the literature.

There are three points on which most aspectologists today agree:

(1) There is general consensus that “aspectuality” is a matter of “boundaries” (or “initial and final endpoints”, Smith (1997:3); “transitions”, Bickel (1997) and others). The basic distinction is that between unbounded and bounded situations: situations may be conceived of as including their starting points or endpoints or both, or may be conceived of as persistent situations with no boundaries implied. Common concepts such as “phases”, “intervals”, “telic vs. atelic situations”, etc. derive from the metaphor of boundaries (cf. Lyons 1977:710-11). The basic component of any theory of aspect is thus concerned with the modeling of the linguistic encoding of situations with respect to their boundaries.

(2) Most of the recent studies seem to agree that aspectuality (including tense and “Aktionsart”, where it is distinguished) is a larger “domain” strongly characterized by the interaction of categories both within the grammar and between grammar and lexicon. The tendency to assume an interactive aspect domain was observed a few years ago by Bache (1994:1-2) who says: “...it is interesting to note that, although the authors [of Bache et al. 1994] clearly work within different national and international traditions... many of them share a preoccupation with the nature of categorial “interaction” (or “intersection”, “interplay”, “compensation”) and the place or “scope” of tense, aspect and action in verb systems”. As Smith (1997:5) puts it, “aspect is a semantic domain which is expressed in linguistic categories”; Bertinetto (1997) calls it “il dominio tempo-aspettuale”.

(3) A further point of consensus was noted by Higginbotham in the introduction to Bertinetto et al. (1995a): “There is general agreement... that explicit, formalizable, theories of syntactic structure; of the

contribution of syntax and the lexicon to semantic interpretation; and of the deployment of contextual information, are all required if the phenomena of tense and aspect are to be understood" (p.5). This is, of course, strongly related to the previous point: the observation that there are many interacting factors that contribute to "aspectuality" necessitates a theoretical approach that transgresses the boundaries of linguistic subdisciplines.

Within these general confines, there are contradictory positions on almost any of the basic issues: there are considerable differences in the various underlying models of "time logic"; there are divergent views on what constitutes "atoms" of an aspect theory (i.e. the granularity of distinctions); there is disagreement on the interpretation of the different semantic effects observed (truth-conditional values, pragmatic implications, universal semantic categories, etc.). It is not possible to go into these details here. I will concentrate on what I think is perhaps the most fundamental point of disagreement in recent (and not so recent) literature on aspect. This is the divergence with respect to the following interrelated issues:

- the acceptance or non-acceptance of a dichotomic distinction between two categorial dimensions within the aspectual domain;
- the conceptual foundation of this distinction;
- the nature of interaction between these dimensions;
- their association with different levels of analysis or representation;
- the role of overt grammatical cues in their identification.

There are unidimensional approaches proceeding from the assumption that there is only one set of aspect-relevant semantic primitives, a single conceptual dimension in terms of which aspectual phenomena on all representational levels can be analyzed and described. In their strongest form, they employ the same set of categories with the same labels on all levels or, in a different version, assume only one level (the sentence) where aspectual distinctions manifest themselves. By contrast, bidimensional approaches insist on the distinction of two such dimensions, but differ widely in their assumptions about the conceptual independence of these two dimensions. For some, they are separate semantic values and may therefore apply cumulatively; for others they are categories situated on different levels but with an intimate correspondence relationship

among each other, which is sometimes taken account of by using the same labels and/or similar representation formats on each level.

The term "aspect" is often used for different types of phenomena, irrespective of whether a unidimensional or a bidimensional approach is taken (for a historical explanation of this practice see 1.3.1). However, in those models where a differentiation between two dimensions is made, one of the two sets of categorial distinctions is often referred to as "aspect proper". Other terms found are "viewpoint", "viewpoint aspect", "perspective point", or the like. This pertains to "viewpoint" distinctions of the perfective / imperfective type and thus continues the classic notion of morphological aspect as found in the aorist / imperfect opposition of Greek, the passé simple / imparfait opposition in French, and their kin. Aspectual distinctions on this dimension are not always stated in terms of a strictly binary dichotomy. Some scholars work with additional categories, such as an "habitual aspect", a "progressive aspect", etc., others assume a "neutral viewpoint" as a third category. In the following, I will refer to this dimension as "ASPECT<sub>1</sub>" (= the perfective/imperfective dichotomy and its associates).

The second semantic dimension continues features of the classic "Aktionsart" notion and comprises any type of intrinsic temporal characteristic of situations, such as dynamicity, stativity, durativity, punctuality, telicity, etc. A rich array of terms is available for designating this dimension: "Aktionsart", "action", "verbal character", "aspectual character", "aspectual potential", "verb class", "taxonomic category", "intrinsic meaning of the verb", "situation type", "state-of-affair type", "aspectual type", "event sort", etc. I will refer to this dimension as "ASPECT<sub>2</sub>" (= intrinsic types of temporal characteristics of situations formerly classified as "Aktionsart", such as those enumerated above). I will strictly avoid the term "Aktionsart" for ASPECT<sub>2</sub> (except when quoting approaches where this term plays a central role).<sup>3</sup>

The current situation in the field is such that for some, it is self-evident that ASPECT<sub>1</sub> and ASPECT<sub>2</sub> must be carefully distinguished, while for others such a distinction will barely make sense. Moreover, for those who adopt the latter view, the traditional ASPECT<sub>1</sub> and ASPECT<sub>2</sub> concepts are often amalgamated into their single "aspect" category. This amalgamation

---

<sup>3</sup> This is done for a certain reason which will hopefully become obvious in the course of this paper: the term "Aktionsart" was invented to indicate a strict division between lexicon and grammar (or lexicalization and grammaticalization), which was coupled with the assumption that the two constitute different (and in a way unrelated) compartments of language, each of which was associated with their distinct semantic characteristics. This is something against which I will argue here, especially in the context of cross-linguistic investigations. Lexicon and grammar are intimately related and they are not the only "strands" of aspectuality (cf. section 3).



may be of different kinds. Some models are predominantly viewpoint (ASPECT<sub>1</sub>) oriented and assume a general binary perfective / imperfective opposition (sometimes labelled differently) under which facets of ASPECT<sub>2</sub> distinctions (durativity, telicity, and the like) are subsumed. Others take the opposite route. Their theoretical orientation is basically ASPECT<sub>2</sub>-related. A perfective / imperfective opposition is either just added as a further binary distinction to the list of features commonly employed in the semantic decomposition of ASPECT<sub>2</sub> types (punctual/durative, telic/atelic, static/dynamic, etc.), or the perfective / imperfective distinction is taken to be irrelevant altogether, its semantics being covered by the above-mentioned ASPECT<sub>2</sub> type features. Finally, even those who adhere to the bidimensional view, do not necessarily agree on which phenomena belong to which dimension. For example, Bertinetto (1997) and Smith (1997), both passionate advocates of the bidimensional approach, disagree on the status of habituality. For Bertinetto, it is part of the ASPECT<sub>1</sub> domain; for Smith, it belongs in the ASPECT<sub>2</sub> domain. The inevitable result is that adherents of the opposed approaches usually fail to take notice of each other and/or reprimand the other camp for confusing notions.

In the remainder of this section, a few words need to be said about the association of ASPECT<sub>1</sub> / ASPECT<sub>2</sub> distinctions with different levels of analysis or representation and the role of overt grammatical cues in their identification. 19th and early 20th century aspect theory was mainly interested in one level, viz. morphology. It was more or less exclusively concerned with ASPECT<sub>1</sub> distinctions with overt grammatical manifestations (see 1.2). There was a parallel line of research identifying types of ASPECT<sub>2</sub> distinctions, in particular durativity / punctuality and atelicity / telicity, which were overtly manifested in the presence or absence of preverbs of complex verb lexemes in Indo-European languages. These were regarded as "Aktionsarten" and distinguished from "aspect". This tradition, then, exclusively rests on overt distinctions on two different levels of description: ASPECT<sub>1</sub> distinctions manifested morphologically (by inflection) in the grammar, and ASPECT<sub>2</sub> distinctions manifested morphologically (by word-formation) in the lexicon.

Today, ASPECT<sub>2</sub> is no longer regarded as dependent on overt word-formation processes<sup>4</sup>. This is legitimate in so far as semantic characteristics such as dynamism, telicity, and the like can be viewed as intrinsic properties of predicates that do not need an overt formal "carrier". Moreover, ASPECT<sub>2</sub> is no longer regarded as something

---

<sup>4</sup> Indo-Europeanists now make a difference between "verbal character", which is inherent, and "Aktionsart", which is an overt derivational mechanism by means of which verbal character is changed (cf. Strunk 1994).

exclusively confined to verb lexemes; it is variously described as a property of lexical verbs, of verb phrases (irrespective of whether regarded as lexicalized or not), of propositions, or of sentences. Associating ASPECT<sub>2</sub> with different degrees of complex expressions is also legitimate in so far as the semantic properties of different elements of verb phrases (NPs, adverbials, etc.) may induce different ASPECT<sub>2</sub> characteristics. Whether it makes sense to associate ASPECT<sub>2</sub> with the sentence level remains an open question to which we will return later on in the discussion.

As for ASPECT<sub>1</sub>, the “viewpoint” distinction, there is likewise a tendency to abandon its dependence on overt marking and to assume that the difference between perfective and imperfective viewpoints can be “read into” a sentence, for example on contextual grounds. This is somewhat more complicated than the assumption of intrinsic ASPECT<sub>2</sub> features. A fundamental question that arises here is whether it is possible to legitimate a universal category or dimension of “viewpoint” which is sufficiently different conceptually from ASPECT<sub>2</sub> distinctions to be regarded as a separate semantic primitive.

It seems certain that the semantics of an ASPECT<sub>1</sub> dimension cannot reasonably be stated in terms of the traditional psychological definitions of perfectivity and imperfectivity (“external vs. internal viewpoint”, etc., cf. 1.2 below) because of their insufficient operationalizability. It is precisely the vagueness of such definitions that has led many scholars to abandon the ASPECT<sub>1</sub> notion altogether. To my knowledge, there are few people today that resort to such definitions when attempting to motivate an ASPECT<sub>1</sub> / ASPECT<sub>2</sub> bidimensionality. Rather, the ASPECT<sub>1</sub> definitions proposed by more recent adherents of a bidimensional approach all rely, explicitly or implicitly, on the notion of boundaries and thus establish semantic distinctions closely related to ASPECT<sub>2</sub> distinctions. And in fact, everything we know so far about aspect systems in the languages of the world points to an intimate relationship (often stated in terms of markedness) between “perfectivity” and “telicity” or “punctuality” on the one hand and “imperfectivity” and “stativity” on the other. The former affinity is often interpreted in terms of a general notion of “boundedness”, while the latter is interpreted in terms of “unboundedness”. Table 1 gives a simplified account of these correlations.

ASPECT <sub>2</sub>	stative	telic/punctual
ASPECT <sub>1</sub>	u imperfective	u perfective
cover term	non-bounded	bounded

Table 1: Purported markedness relationship between ASPECT<sub>2</sub> and ASPECT<sub>1</sub>

The heavy burden of motivating two separate and independent semantic dimensions would thus rest on the shoulders of the bidimensionalists, whereas unidimensionalists would claim that it is precisely this affinity that their theory captures in terms of a single set of primitives.

Nevertheless, a good case can be made for a distinction between two types of boundedness, which can be associated with the dimensions of ASPECT<sub>2</sub> and ASPECT<sub>1</sub>: ASPECT<sub>2</sub> involves inherent boundedness ("BOUNDEDNESS<sub>2</sub>"), while ASPECT<sub>1</sub> involves grammatically established boundedness ("BOUNDEDNESS<sub>1</sub>"). This would provide us with an operationalizable distinction, with which the traditional incomprehensible definitions can be replaced.

Evidence comes from at least one predicate class where we find an equilibrium of perfective and imperfective viewpoints independent of inherent boundedness features. This is the class of intrinsically durative predicates known as activities: in languages that have an overt perfective / imperfective marking system, activity predicates may be presented in two forms understood as signalling an opposition between an ongoing activity with no boundaries implied (*I was working*) and a delimitative version including the whole event with its initial and final boundaries (*I worked (and then...)*). This opposition is heavily discourse-sensitive and tied into a system called "taxis" (cf. 1.8). For example, the "ongoing" viewpoint of a predicate is textually relevant mainly in relation to another predicate that defines the focalization point whose background the ongoing activity constitutes; similarly, the delimitative viewpoint is textually relevant particularly in a sequence of actions following one another, etc. Such a system, if present in a language, can be regarded as a genuine "viewpoint marking system", and it differs from the boundedness characteristics induced by intrinsic boundaries in one important respect. It prototypically operates in the field of activities (as, for example, language-specific equivalents of *work, sing, run, eat, walk*, etc.), an ASPECT<sub>2</sub> class for which the absence of intrinsic boundaries is typical. For such predicates the perfective aspect can be regarded as a secondary boundary-setter: it establishes the (arbitrary) temporal endpoints of the activity. For other ASPECT<sub>2</sub> types an operation establishing a temporal endpoint is largely irrelevant or redundant: stative predicates are generally unbounded<sup>5</sup>, while in telic predicates the temporal endpoint typically coincides with the intrinsic one. This is why the strong "markedness" associations between intrinsic boundaries and boundary-sensitive operators usually hold even in

<sup>5</sup> Basically this is true only of genuine permanent ("individual-level") states. Many languages have generalized this to all types of states. But there are languages where temporary states behave like activities in admitting a delimitative reading signalled by a perfective aspect form (e.g. Spanish). This is conceptually related to the English practice of allowing the progressive with temporary states, though the effects on the system are different.



viewpoint-marking systems (no intrinsic boundary with states = no perfective aspect; intrinsic boundary with telic predicates = unmarked use of perfective aspect). It is this peculiar mechanism, the “secondary bounding” of activities, that gives so-called aspect languages their “special” flavor. Table 2 summarizes this constellation.

ASPECT <sub>2</sub>	stative	activities	telic/punctual
ASPECT <sub>1</sub>	u imperfective	imperfective vs. perfective	u perfective
cover term	non-bounded	arbitrarily bounded	bounded

Table 2: Markedness relationship between ASPECT<sub>2</sub> and ASPECT<sub>1</sub> in ASPECT<sub>1</sub> marking languages

It goes without saying that such a system is entirely dependent on the presence of overt aspect markers that achieve the effect of secondary bounding; otherwise it would be difficult to recognize whether an activity predicate in an actual utterance is secondarily bounded or not. It therefore remains an open question whether it makes sense to distinguish viewpoint as a covert category, assignable “by interpretation”, if there are no overt “viewpoint operators” in the form of morphological categories or function words. This will have to be addressed further below.

In the following sections 1.2-1.8 we will discuss a selection of well-known aspect models. There are several ways of classifying approaches to aspect. One is given by different stages in the historical development with reference to the theoretical role of ASPECT<sub>1</sub> / ASPECT<sub>2</sub> distinctions. This is the one I will chiefly follow here because it suits the discussion in section 2 best. After a concise survey of the classic viewpoint approach (1.2), I will briefly characterize approaches to aspect in the Anglo-American tradition and show how they gradually developed from a basically ASPECT<sub>2</sub>-oriented monodimensional approach to more differentiated versions (1.3). A radically different monodimensional approach is described in 1.4. Section 1.5 deals with Radical Selection Theories, which presuppose an ASPECT<sub>1</sub> / ASPECT<sub>2</sub> distinction, though they maintain an intimate representational relationship between the two. Genuine bidimensional approaches claiming that ASPECT<sub>1</sub> and ASPECT<sub>2</sub> constitute two independent semantic systems are treated in section 1.6. In 1.7 I will briefly discuss a multidimensional multi-level approach.<sup>6</sup>

<sup>6</sup> It goes without saying that this is an extremely coarse and selective classification and it is certainly not intended to fulfill the desideratum of a detailed systematic assessment of aspect theories, as I am unable to do justice to the specifics of the many individual variants within these coarse categories.

There is another parameter along which aspect theories may be classified and which is, in principle, orthogonal to the classification given above, though there are certain affinities. This parameter pertains to the level of linguistic analysis on which aspect theories are supposed to be valid. Accordingly, aspect theories may be classified as morphological, syntactic, lexicogrammatical, discourse-based, "cognitive", etc. I will use these labels occasionally when referring to the affinities between these two parameters in the architecture of different models. Moreover, my discussion of discourse theories of aspect (section 1.8) will rely on the level-of-linguistic-analysis parameter rather than on the question of how many semantic dimensions are distinguished. In terms of the latter, it could be said that (at least some) discourse approaches to aspect show signs of a tridimensional approach.

## 1.2. The Viewpoint Approach

The traditional theory of aspect was predominantly concerned with the semantics of inflectional aspect categories in the verb. It could therefore also be called the "morphological aspect approach". It can be traced far back to very early times (probably as far back as classical antiquity) and was the predominant approach in Slavic and Indo-European linguistics in the 19th and early 20th centuries, gradually also penetrating the fields of Romance, Semitic linguistics, and others<sup>7</sup>. Initially, ASPECT<sub>1</sub> and ASPECT<sub>2</sub> were not distinguished; nevertheless, the 19th century aspect approach is a theory of ASPECT<sub>1</sub> rather than of ASPECT<sub>2</sub>. This is due to the fact that the description and explanation of one particular binary opposition in Slavic called the "viewpoint" (Russian *vid*) opposition<sup>8</sup> was applied by Indo-Europeanists to morphological categories such as the aorist and the imperfect. The terms "aspect" and "Aktionsart" were used indiscriminately to designate this opposition. (Another term common among German scholars of that time was "Zeitart" - in contradistinction to "Zeitstufe" = temporal location). A very important assumption of such theories is that "viewpoint" oppositions are grammatical categories like tense, so that, in principle, any situation can be looked at either way, though there are some "defective" cases.

Facets of ASPECT<sub>2</sub> began to be discussed after Agrell (1908) made a case for the distinction between "aspect" and "Aktionsart". However, this did

<sup>7</sup> For an excellent concise history of the classic approach to aspect see Pollak (1988). An informative overview of different approaches to "time constitution", aspect and Aktionsart is also given in Krifka (1989a: 95ff.).

<sup>8</sup> The first descriptions of aspectual oppositions in Slavic languages go back to the early 17th century. The Russian term *vid*, which provided the basis for the loan-translation 'aspect', was first used by N.I. Grech in his Russian grammar of 1827.

not lead to the concept of an aspectual domain comprising the two in the form of two interrelated subdomains. If “Aktionsarten” played a role at all in the debate, they were either subsumed under “aspect” in the sense of ASPECT<sub>1</sub> or treated as something different and allegedly of no concern to a theory of aspect. It was only in the later stages of classic aspect theory that the relevance of verbal lexical semantics (e.g. the punctual/durative distinction or the telic/atelic distinction) to the interpretation of morphological aspect categories were more systematically taken into account, but even then this was usually treated as a side-issue. Since the earlier approach was entirely form-oriented, much work concentrated on the proper distinction between derivational “Aktionsart” and inflectional “aspect” categories, mainly in order to sort out phenomena considered irrelevant to aspect theories, which were held to be concerned exclusively with “grammar”. Such a distinction was felt to be particularly important in those cases where similar formal devices seemed to blur it (as in several of the Slavic preverbs, which were taken by some scholars to indicate aspect, by others to indicate “Aktionsarten”). “Aspects” were defined as grammatical categories that do not change lexical meaning, while “Aktionsarten” were taken to be devices of word-formation and thus a matter of lexical enrichment outside the scope of grammatical description (see, e.g. Jacobsohn 1926, Hermann 1927, 1933, Porzig 1927, Koschmieder 1928/29, among many others; for historical assessments of the aspect / Aktionsart distinctions see also several contributions in Veters & Vandeweghe 1991).

Aspects, in the morphological sense, were regarded as holistic categories, constituting a morphological opposition between **imperfective** and **perfective** aspect, usually defined as the “uncompleted and completed viewpoints” of an action.<sup>9</sup> These viewpoints were taken to be manifest in the verbal paradigms of individual languages, for example in the “aspectual pairs” in Russian, the aorist / imperfect distinction in Greek, or the distinction between passé simple and imparfait in French. They were cognitively or psychologically explained in various ways. Typical definitions that found their way into textbooks and teaching grammars are, for example, “the perfective aspect describes an action as a whole, while the imperfective aspect describes the action as having internal structure”, or: “the perfective aspect describes the action as seen from outside, the imperfective aspect describes the action as seen from inside”, or: “the imperfective aspect describes an action whose subject moves with the flow of time, while the perfective aspect describes an action where the flow of time comes towards its subject” (whatever all this means - that

---

<sup>9</sup> The terms are loan translations of Russian *nesoveršennyj vid* ‘uncompleted viewpoint’ and *soveršennyj vid* ‘completed viewpoint’. Older terms, coined by Curtius, were “dauernd” vs. “eintretend”.



traditional aspect definitions were largely incomprehensible to outsiders was already noted by Jespersen<sup>10</sup>).

To these two aspectual categories some 19th century Indo-Europeanists (e.g. Curtius and Brugmann) had added a third one, the **perfectal** aspect, whose status as a distinct category has long remained controversial. The Slavist Erwin Koschmieder defined the perfectal aspect, manifested by perfect categories such as the English “present perfect”, or similar categories in European languages using the auxiliary *have*, as a combination of perfectivity and imperfectivity: the perfectal aspect associates a change of state (perfectivity) with its resultant subsequent state (imperfectivity).

Some scholars working in the perfective / imperfective paradigm distinguished several readings or interpretations of perfectivity and especially imperfectivity. An imperfective aspect form, for example, may have the episodic (“actual”) reading of “progressive” or “hic et nunc present” (or its equivalents in the past or the future), but it may also have one of several non-episodic (“inactual”) readings such as “universal” (also called “generic”, e.g. *Tigers eat meat*), “habitual” (*I get up at 7 every morning*), etc. A very obvious reason for these differentiations is that many languages express these semantic nuances by distinct morphology, but it was also observed that there is a systematic affinity between the potential of interpretation exhibited by a certain aspect form and the “Aktionsart” of the verb. (It was this observation that has ultimately led to the selection theories of aspect, see 1.5). Nevertheless, the binary opposition between perfectivity and imperfectivity is usually taken for granted so that in most of these approaches it is not claimed that there is, say, an “habitual aspect” distinct from an imperfective one; habituality would normally be taken as a semantic nuance of imperfectivity (cf. Comrie 1976:25).

Aspect selection was often regarded as “subjective” (in contrast to “objective tense” in the sense of temporal location, i.e. present, past, and future, but also in contrast to “objective” Aktionsart), in that it was assumed that the choice between an imperfective or a perfective way of expressing a certain state of affairs in an actual utterance is frequently a matter of speaker’s preference. This is intrinsic to the idea of ASPECT<sub>1</sub> representing a “viewpoint category”, which is already inherent in the terminology (Russian *vid* = Latin *aspectus* ‘view’).<sup>11</sup>

<sup>10</sup> “...nowadays it would be possible, had one time and inclination, to give a very long list of terms, many of them with two or three or even more definitions, some of which are not at all easy to understand” (Jespersen 1924:286).

<sup>11</sup> A favorite example of this “subjectiveness” is the fact that in many languages with perfective / imperfective morphology, one may use both forms with durative time adverbials (He reigned (perfective ~

From a typological point of view, a distinction between aspect languages and tense languages was posited on the basis of the primary semantic orientation of the verbal paradigm (whether it was basically tense-oriented (perhaps with added aspectual distinctions), or whether it was basically aspect-oriented). It has often been hotly disputed among philologists working on particular languages whether their languages were "tense" or "aspect" languages (for example, the controversy over Hebrew, Arabic, and other Semitic languages fills a whole library, see e.g. Rundgren 1959, 1961, Moscati 1964, Tyloch 1978, among many others; similar discussions have been going on in Romance linguistics and can probably be found anywhere, see, for example, König 1993:60 on Maasai).

The approach briefly outlined above is the dominant classic approach, but it hardly has any significant repercussions in modern theoretical, especially formal, literature. As a matter of fact, it has never been very widespread in the English literature on aspect. In contrast, it was the dominant framework for German works on aspect, to a certain extent also in the Slavic-speaking world. A frequently quoted standard work was Koschmieder (1929); his aspect theory was elaborated on by several authors in applying it to specific languages (e.g. Denz (1971) on Arabic), though its idiosyncratic psychologically-based time logic has not appealed to many scholars. Important contributions have also been written in French (Holt 1943). More recent or contemporary representatives are - at least in part - Comrie (1976), and Dahl (1985), both standard works predominantly concerned with morphological aspect categories. But in spite of the minor interest this approach now enjoys in certain formal theoretical circles, it still plays an enormous role in the descriptive practice: the verbal systems of very many languages continue to be described in terms of a basic morphological imperfective/perfective distinction (even if other terms are sometimes used), while at the same time little or no reference is made to any other possible semantic components that may contribute to aspectual (or "Aktionsart"-related) distinctions.

### 1.3. Approaches to Aspect in the Anglo-American Tradition

The approach or family of approaches to which we will turn now is the Anglo-American answer to the continental, perfective/imperfective-based, morphological aspect theory. The central interest of the approaches

---

imperfective) for thirty years). Comrie (1976:17) has shown that the confusion raised by such phenomena stems from the incorrect assumption that the perfective / imperfective distinction has to do with durativity. At any rate, aspect choice is no more subjective than, say, the choice between a nominalization and a finite verb form.



discussed in this section lies in the inherent temporal characteristics of predicates with respect to duration, boundedness, etc. In the following, these temporal patterns will be called “time-schemata”, a term adopted from Zeno Vendler’s classic work (see below). This is not to say that Vendler invented time-schema theory. Like the perfective / imperfective distinctions of traditional aspect theory, the most fundamental time-schema distinctions go back to classical antiquity (Aristotle): in *Metaphysics* he distinguishes between actions that are directed towards a goal (*kineseis*) and actions that are not so directed (*energeiai*). Some scholars have attributed other distinctions to Aristotle as well, e.g. that between states and events (or “dynamic situations”): states last for a period of time and are unbounded, while events occur in time and are potentially or actually bounded.<sup>12</sup>

### 1.3.1. Prehistory

The basic roots of the time-schema approach’s prehistory lie exclusively in the English-speaking tradition. First and foremost, the term “aspect” as used in this tradition stands mainly for the chief semantic ingredients of what the continental tradition had termed “Aktionsart” (ASPECT<sub>2</sub>). This use of the term probably goes back to several sources. For one thing, it is based on the open, indiscriminate use of the term “aspect” as traditionally found in the linguistic literature written in English. It seems that for the English-speaking linguistic world, “aspect” was from the very outset not so narrowly interpreted as the translation of the Slavic grammatical term *vid* with its typical fixation on the binary distinction between perfectivity and imperfectivity (ASPECT<sub>1</sub>), as it was during the same period for the Germans or the French. It appears to have been much closer to the everyday usage of the word “aspect”. For example, in earlier grammars of non-Indo-European (for example, African) languages written in English it is common to designate any kind of grammaticalized verbal categories, including temporal location, modality, polarity, etc., as aspect. One therefore often finds categories such as “prospective aspect”, “contemplative aspect”, “affirmative aspect”, “negative aspect”, and the like.<sup>13</sup> It is true that this terminological practice was sometimes criticized

---

<sup>12</sup> It is for this reason that some scholars speak of the “Aristotelian” classification of situation types. How much of today’s set of distinctions is really found in Aristotle’s work is controversial; cf. Kenny (1963:173-183), Dowty (1979:52-53).

<sup>13</sup> This is paralleled by the extensive use of the term “tense” to cover a similar range of meanings (even including things like a “relative tense” for a verb form occurring in relative clauses). It is possible that the use of “aspect” instead of tense was once introduced to capture the insight that many of the paradigms comprised by the term tense do not have temporal semantics in the narrower sense; the term “aspect” is less transparent and thus avoids misunderstanding in this respect.



as misuse, but it explains why authors brought up in this tradition were much less militant with respect to terminological distinctions in this field.

Second, the ASPECT<sub>2</sub> reading of the term “aspect” was found in the works of leading authorities. It seems that the most influential contribution to the reinterpretation of the term “aspect” as “ASPECT<sub>2</sub>” comes from Jespersen (1924: 286ff.). Not only does he explicitly propagate the use of the term “aspect” in the sense of “Aktionsart”, pointing to the already existing tradition, but he also explicitly subsumes ASPECT<sub>1</sub> under this general cover by listing 6 aspectual distinctions: “(1) the tempo-distinction between the aorist and the imperfect; (2) the distinction between conclusive and non-conclusive verbs; (3) the distinction between durative or permanent and punctual or transitory; (4) the distinction between finished and unfinished; (5) the distinction between what takes place only once, and repeated or habitual action or happening; (6) the distinction between stability and change” (Jespersen 1924:287).

It is therefore quite easy to understand why English and continental aspectology evolved in diametrically opposed ways: the English tradition continued the 19th century comprehensive use of the term “aspect”, which predates the differentiation between “aspect” and “Aktionsart”, and took great pains in consolidating it theoretically<sup>14</sup>, while the continental tradition was concerned during most of the 20th century with the theoretical elaboration of the aspect/Aktionsart distinction.

Another conceptual input to the Anglo-American aspectological tradition is the central interest of English-based linguistics in syntax rather than in morphology, obviously driven by the structure of English as opposed to the structures of the heavily inflecting Classical, Romance, Slavic, etc. languages with which many of the linguistic traditions on the continent were concerned. As a result, the chief subject of investigation are the semantic notions usually associated with ASPECT<sub>2</sub>, because it is these that are relevant at the syntactic level (cf. the role of adverbials, argument structure, etc. in “boundedness”), rather than the perfectivity / imperfectivity distinction, which is nowhere clearly manifested in

<sup>14</sup> One notable exception is Lyons (1977:703ff.). After introducing the term “aspect” for grammaticalized aspect categories (ASPECT<sub>1</sub>), he enters into a splendid discussion of the inadequacy of the notion of “Aktionsart”. He rejects this term, but notes that some facets of what it tries to cover are extremely important for any theory of aspect. For these, he proposes the term “aspectual character”: “The aspectual character of a verb, or more simply its character, will be that part of its meaning whereby it (normally) denotes one kind of situation rather than another. For example, ‘know’ differs from ‘recognize’ in English, as ‘kennen’ differs from ‘erkennen’ in German or ‘znatj’ from ‘uznatj’ in Russian, by virtue of its aspectual character. ‘Know’ ... normally denotes a state, whereas ‘recognize’ ... normally denotes an event. It is generally accepted nowadays that any discussion of aspect from a semantic point of view must also take account of what we are referring to as the character of particular verbs. ... Aspect and character are interdependent in this way because they both rest ultimately upon the same ontological distinctions” (p.706).

English: it is easy to make out different interpretations in terms of punctuality, durativity, telicity, and the like on the level of larger phrases or sentences, while there is no way of describing formal distinctions related to the perfective / imperfective opposition. At the same time, the focus of interest shifts from “completion”, the traditional key concept underlying the perfective / imperfective approach, to “continuousness” or “progressivity” and its relation to stativity, given that one of the few verbal categories in English where aspectual distinctions show up most obviously is the progressive. This places new emphasis on the aspectual problems of the “present tense”, whereas the main focus of the perfective / imperfective approach was on distinctions in the past or in the future.

### 1.3.2. The Time-Schema Approach

The time-schema approach begins with Gilbert Ryle (1949), culminates in the work of Zeno Vendler (1957, reprinted in Vendler 1967), and finds its theoretical and formal explication in David Dowty (1977, 1979). Further important contributions came from Anthony Kenny (1963), Alex Mourelatos (1978), and others. The basic tenet of these early approaches was to set up classes of situations according to a logical concept of temporal constitution, which defines the different inherent temporal characteristics of states, events, processes, etc. in a coherent way, by referring to basic ontological distinctions. Vendler's work was most influential in this respect; theoretical research based on his ideas has therefore occasionally been referred to as “post-Vendlerian aspectology”. His four time-schemata **states**, **activities**, **accomplishments** and **achievements** have become standard in this kind of literature, be it as holistic concepts, or as names for configurations of features such as [ $\pm$ punctual], [ $\pm$ durative], [ $\pm$ telic], [ $\pm$ dynamic], etc.

Vendler's approach was readily adopted and elaborated on by formal semanticists and computational linguists (Hinrichs 1986, Moens 1987, Moens & Steedman 1988, and many others). Dowty 1979 has become an extremely influential reference work for scholars working in these fields. Nevertheless, the approach is nowadays also found outside these circles. Via formal semantics, it has found its way into the “semantic components” of the various generative approaches (cf. Bach 1981, 1983, Tenny 1989, 1994, etc.). Some of the basic characteristics are also found in Langacker (1987, 1991), even though his approach rests on quite different theoretical foundations. He does not employ Vendler's terms but his subcategories of “atemporal and temporal relations” roughly translate into time-schemata, though he confusingly uses the imperfective/perfective

terminology for what is usually called atelic/telic. Incidentally, this is relatively widespread in the English-speaking tradition.

Post-Vendlerian aspectology is so diversified that it is impossible to sum up its basic make-up in a few lines. It is perhaps necessary to distinguish a "classic" variant, which is largely unidimensional and uses Vendler's four time-schemata as its basic categorial inventory, from reductionist attempts to boil down Vendler's categories to fundamental dichotomies (of various sorts), and more recent "postmodern" offshoots allowing more categorial complexity. It will be sufficient here to briefly enumerate some outstanding characteristics of the classic approach, leaving the discussion of other issues raised in this research context to section 1.3.3. The principal features of this approach can be characterized as follows. The terms "aspect" or "aspectual" are used for any kind of features of temporal reference (including temporal location), wherever these lend themselves to explicit description. No differentiation between grammatical ASPECT<sub>1</sub> and lexical ASPECT<sub>2</sub> is regularly made.<sup>15</sup> Instead, the research perspective is oriented toward something usually called "sentence aspect", which comprises anything that may contribute to the actual time reference of a sentence. This is regarded as compositional. Thus, the heuristic is such that one basically starts with the time-reference properties of the sentence as the explanandum and then gradually proceeds to a decomposition of the various factors that contribute to it. In actual fact the models proposed are largely bottom-up; i.e. they successively assemble sentence aspect out of aspectually relevant constituents, starting from the intrinsic time-schema of a verb or a verb phrase (a "predicate").

The basic semantic distinctions are usually set up in terms of Vendler's time-schemata. The same time-schemata are typically employed at any level of analysis; thus, a lexical verb may be found characterized as an "accomplishment" in the same way as a phrase or a whole sentence. Recategorization (i.e. change in aspectual value between different levels of analysis) is also assumed; for example, a verb may be characterized inherently as an "activity" but become "recategorized" as an

---

<sup>15</sup> Dowty, whose work is too sophisticated to fall under the rubric of the classic time-schema approach, although he undoubtedly was the most prominent figure in disseminating it, discusses the problem briefly. He admits that the term *verb aspect* for the time-schema-related classes of verbal predicates "is not a wholly appropriate term, since *aspect* in linguistic terminology is usually understood to refer to different inflectional affixes, tenses, or other syntactic "frames" that verbs can acquire (aspect markers)...". He nevertheless points to the fact that "in all languages, semantic differences inherent in the meanings of verbs themselves cause them to have different interpretations when combined with these aspect markers". He therefore comes to the conclusion that "it is because of this intricate interaction between classes of verbs and true aspect markers that the term *aspect* is justified in a wider sense to apply to the problem of understanding these classes of verbs as well... If it is necessary to distinguish the two uses of *aspect*, we can ... distinguish the *aspectual class* of a verb ... from the *aspectual form* of the verb" (1979:52).



“accomplishment” by the addition of further material (e.g. a PP or NP). Another way of “recategorizing” is through aspect morphology; thus, it is common to find statements to the effect that, for example, the progressive recategorizes an event into a state. It is generally common to assume that the traditional distinctions attributed to aspect morphology (perfective vs. imperfective) can be analyzed in terms of time-schemata. This assumption is often implicit, but has also sometimes been expressed quite bluntly, for example by Herweg (1991:363), who states that “perfective” and “imperfective” are synonymous with “event sentence” and “state sentence”, respectively (see 1.3.3 below); cf. also Moens & Steedman 1988, and others. Thus, progressives are analyzed as states<sup>16</sup>; habitual expressions are likewise regarded as states<sup>17</sup>; aorists with inceptive reading are analyzed as achievements, and so forth.

Aspectual tests play a central role in ascertaining the semantic changes and differences that are caused by the addition of adverbials, in determining compatibilities and incompatibilities between aspectual values of constituents, in pinning down aspectual effects of argument structure, etc. Aspectual tests are discussed in extenso in Dowty (1979).<sup>18</sup> Many of these tests were already proposed by Vendler and his predecessors, such as the adverbial tests with “almost”, “suddenly” or with time adverbials such as “in an hour”, “for an hour” to differentiate telic and atelic events.<sup>19</sup> It has also become fashionable to use the potential of a verb (phrase) to occur with certain morphological aspect categories as a test (“progressive test”: \**I am knowing* is odd, because *know* is a state, *I am pushing the cart* is fine, because *push the cart* is an activity).

One of the most problematic aspects of the literature in the time-schema tradition is its general vagueness with respect to the level of linguistic analysis on which the time-schemata obtain. There are some differences in usage, and it is often difficult to reconstruct an individual author’s stance on this point. The fact that Vendler refers to “verbs” (even in his title) has often been misinterpreted as his proposing a classification of verb lexemes. This is definitely not the case, as his examples clearly show. On the other hand, authors working in the post-Vendlerian paradigm are predominantly concerned with the time-schemata shown by complete sentences. In actual fact, it is neither verb lexemes nor sentences that bear

<sup>16</sup> This is stated explicitly particularly often, e.g. Vlach (1981:274): “The function of the progressive operator is to make stative sentences, and, therefore, there is no reason for the progressive to apply to sentences that are already stative”. Similar passages could be cited from many other authors. For further discussion see section 2.

<sup>17</sup> Cf., for example, Leech (1971), Mittwoch (1988), Partee (1984), and many others.

<sup>18</sup> Cf. Behrens’s very enlightening critical analysis of aspectual tests (1998: 289ff.).

<sup>19</sup> For example, a durative time adverbial such as *for an hour* cannot occur with telic predicates. Thus, \**He was drawing the circle for an hour* is odd, while *He was pushing the cart for an hour* is fine.

the time-schemata in Vendler's approach, but abstract verb phrases or constructions (*to stop running, to get exhausted, to draw a circle, to be able to see*, etc.), called 'terms' by Vendler<sup>20</sup>. This threefold interpretation of the scope of time-schemata may give rise to considerable confusion, especially when a particular aspect theory fails to provide explicit rules for the interpretation of the compositional hierarchy. What is the linguistic level of phrases and constructions and how does it relate to the lexicon? Does a verb lexeme have a default time-schema which may be changed when it enters a certain construction or does the construction bear the time-schema from the outset? How is it possible to test the putative time-schema of a certain minimal sentence  $S_1$  against the addition of an adverbial, when, at the same time, it is assumed that adverbial semantics is part of the time-schema of sentences? Isn't the resulting sentence  $S_2$  then a different sentence? We will come back to these and similar queries in section 2 below.

### 1.3.3. More Recent Developments in Post-Vendlerian Aspectology

I have already pointed out that the time-schema approach is in some sense predominantly concerned with semantic facets of ASPECT<sub>2</sub> rather than ASPECT<sub>1</sub> (cf. Dowty's explicit statement quoted in footnote 15). This is certainly due to the interest of the initiators of this kind of research in defining situation types in terms of temporal constitution, something which is traditionally considered to be the topic of Aktionsarten semantics.<sup>7</sup> But it is also driven by the grammatical circumstances of English and other Germanic languages (German, Dutch), which are the most frequently treated object languages in this type of literature - languages that would not at all or only marginally count as "aspect languages" on the traditional view. It would be interesting to see how such theories cope with languages with heavy aspect morphology of the perfective / imperfective type. Since the focus is on the compositional nature of the aspect values of sentences, the basic theoretical makeup could be elaborated to be applicable to such languages as well. For example, aspect morphology could be viewed as an additional factor contributing to sentence aspectuality, along with adverbials, arguments, etc. Unfortunately, too little work has been done on morphological aspect languages in this research tradition to see how such an approach could work. Such languages most often form the subject of bidimensional theories.

Nevertheless, during the late eighties and early nineties scholars have become more conscious of the fact that they are working in an ASPECT<sub>2</sub>-related dimension, which is distinct from the concept of the classical

<sup>20</sup> See also Behrens (1998: 296ff.).



ASPECT<sub>1</sub> dichotomy and should not be confused with the latter. Hence, there is an increasing tendency to speak of “sentential Aktionsart”, “sentential situation type” (or the like) rather than of sentence aspect. This is not restricted to mainstream post-Vendlerianists but found in other circles as well (e.g. Depraetere 1995, Bickel 1997, Boogaart 1995, Smith 1997). This is sometimes confusing, especially when the semantic effects described on the sentence level are not identical with ASPECT<sub>2</sub>-related distinctions e.g. in the verbal lexicon, but are stated in terms of a dichotomic boundedness / unboundedness opposition reminiscent of the ASPECT<sub>1</sub> concept of perfectivity vs. imperfectivity. There is, in principle, nothing that speaks against “sentence Aktionsart” (in the sense of the BOUNDEDNESS<sub>2</sub> features of a sentence in terms of telicity, etc.) as long as this is opposed to “sentence aspect” (described in terms of BOUNDEDNESS<sub>1</sub> features as envisaged in section 1.1). In this sense “sentence Aktionsart” may trigger “sentence aspect”, but they are not identical and should not be mixed up.

It is not surprising, therefore, that the status of the aspectual value of the actual sentence vis-à-vis the inherent aspectual characteristics of its predicate has gained prominence among the more recent research questions of the post-Vendlerian approach: is sentence aspect something different and how can it be correlated with the inherent temporal features of predicates? A variety of theoretical answers has been provided, all of them inevitably leading away from strict unidimensionality. One line of research is characterized by the abandonment of the unidimensional application of Vendlerian time-schemata in favor of a more differentiated classification of aspectual phenomena, ultimately ending up in different types of bidimensional or even multidimensional approaches (cf. 1.6, 1.7, 1.8 below). Another possible way of reconciling ASPECT<sub>2</sub> notions with ASPECT<sub>1</sub> notions is their association with different representational levels (ASPECT<sub>2</sub> with the phrasal level and ASPECT<sub>1</sub> with the sentence level) and the assumption of an operator-operand relationship between ASPECT<sub>1</sub> markers (e.g. the progressive) and inherent ASPECT<sub>2</sub> types, such that ASPECT<sub>1</sub> markers operate on the ASPECT<sub>2</sub> values of abstract phrases and shift the final switches for sentence aspect, which would then be stated in terms of ASPECT<sub>1</sub> notions. This leads to a preliminary version of a selection theory, though certainly not in the rigorous way radical selection theories would have it (cf. 1.5), since the selectional relationship could still be held to operate only in those cases where sentence aspect does not come from the inherent ASPECT<sub>2</sub> characteristics.

A radically different line of thinking was inspired by the projection of Davidson’s (1967) “logical form of action sentences” onto Vendler’s time-



schemata in the circle of formal semanticists.<sup>21</sup> Disregarding the divergences in the views of the many different authors that participated in this discussion, it boils down to a dichotomic approach to the ASPECT<sub>2</sub> domain, in which states and events are posited as the two major categories, which creates the possibility of correlating these immediately with the conventional ASPECT<sub>1</sub> dichotomies in terms of a general delimited / non-delimited distinction, also called culminated / non-culminated and bounded / non-bounded. These ideas have not improved the classic approach since they still rest on the belief that ASPECT<sub>1</sub> dichotomies can be analyzed entirely in terms of ASPECT<sub>2</sub> notions. However, after Bach (1981, 1983, 1986), Mourelatos (1981) and their followers collapsed Vendler's accomplishments and achievements into one class of "events" opposed to states, the specific status of non-delimiting activities (and accomplishments!) - often called "processes" - still remained unaccounted for. Numerous attempts have been made to get rid of this unpleasant intermediate category, but none of them have proved to be completely satisfactory. (For a radical dichotomic approach to sentence aspect see 1.4.)

Before closing this section, it is necessary to point to an area where the Anglo-American tradition has really provided major insightful contributions to aspect research. This is its focussing on the compositionality of the aspect values of sentences, wherever these components come from. While classic Aktionsarten research centered around the inherent characteristics of verbs, the contribution from other constituents of the sentence have now become a concurrent research subject: argument structure, determination and quantification, elements of causation, or adverbials. The order of compositional steps is not seldom unclear or controversial (cf. discussions about "aspectual scope"): does the adverbial operate on the verb + object phrase or the object on the verb + adverbial phrase? Or, if aspect morphology such as the progressive is taken to be part of the compositional hierarchy, at which point in the hierarchy does it operate? At any rate, the compositional idea has by now become an integral part of almost all contemporary approaches to aspect.

A central issue in research on aspect composition is the contribution of arguments and their semantic properties to sentence aspect. For example, many non-stative verbs can give rise to either a telic or atelic interpretation according to whether their theme argument has quantized or cumulative reference (Krifka 1989a, b): "mass nouns" and "bare plurals" have cumulative reference and induce a durative reading, while those which have a quantized reference (e.g. count nouns with an

---

<sup>21</sup> An excellent concise discussion of the relevant issues is found in Bäuerle (1994), cf. also Tenny (1994:4-5).

indefinite article or a numeral) induce a telic reading (e.g. *Mary ate apples* vs. *Mary ate an apple*). Thematic roles are also significant: much effort has been invested into showing that the occurrence of aspectual shifts is in covariation with thematic affectedness (e.g. “unaccusatives” differ from “unergatives” in their aspectual behavior, cf. Sanfilippo 1991, 1995, Zaenen 1993, Tenny 1994, Abraham 1996, and many others).

#### 1.4. Verkuyl’s Unidimensional Approach

Henk Verkuyl, one of the earliest initiators of the compositional approach (Verkuyl 1972), propagates (a bit surprisingly, one could almost say) a radical unidimensional aspect theory which is concerned exclusively with logical structure on the sentence level and operates in terms of a strict dichotomy of “terminative” vs. “durative” (or “bounded” vs. “unbounded”) aspectuality (Verkuyl 1993). In all the years from 1972 until 1993 (and later), Verkuyl’s approach has remained basically syntactic, notwithstanding his rebuttal to Dowty, Hinrichs, Krifka, and others who have criticized him on this point (1993:17). Compositionality is analyzed in terms of verb + NP configurations; time adverbials do not seem to play a major role as components but are used for tests. This practice was also criticized by Dowty; it seems to be linked to the idea that English verb morphology unambiguously allows interpretation in terms of one of the two values of a binary aspectual distinction once determinational and quantificational characteristics of certain argument NPs are also taken into consideration.

One of the central points in Verkuyl’s argumentation is his refusal of Vendler classes, and hence of anything that leads to a more differentiated view of ASPECT<sub>2</sub> features on the lexical or abstract phrasal level. This is motivated, among other things, by the goal of doing justice to traditional viewpoint theory: “In my view, Vendler’s classification runs afoul of the evidence emerging from the linguistic tradition in the first half of this century that aspect is essentially a non-lexical property of sentence structure, both in non-Slavic and Slavic languages” (1993:4). It is highly questionable, however, whether the practice of lumping everything together into two sentential aspects “terminative vs. durative” is suitable to achieve this goal. It is precisely in “the linguistic tradition in the first half of this century”, as we have seen above, that aspectologists have become conscious of the fact that a pure morphosyntactic approach to aspect falls short of recognizing the importance of the interaction between the organization of the verbal lexicon and the aspect markers and/or aspectual interpretation cues operating on the morphosyntactic level.

Verkuyl expresses his stance on this point quite clearly: “lexical-semantic considerations” have to be avoided because they often “slip into ontological considerations” (1993:11). It is hard to understand, first of all, what is wrong with ontological considerations in lexical semantics. Since lexical units denote objects and situations, they reflect ontological categorizations. Second, in what respect are Verkuyl’s notions of durative, terminative, unbounded, bounded different from the ontological entities underlying the Vendlerian approach? In actual fact, these notions characterize intrinsic properties of “predicates” and do not capture the intuition of traditional aspectologists that perfective / imperfective “viewpoint” (ASPECT<sub>1</sub>) distinctions pertain to a different layer of boundedness (“BOUNDEDNESS<sub>1</sub>”, see section 1.1 above), which is manifest on the sentence level and obeys discourse-pragmatic regularities. Verkuyl rightly reprimands ASPECT<sub>1</sub> theoreticians for their clumsy definitions, but seems to have completely misunderstood the tenet of traditional research on the aspect / Aktionsart distinction. In sum, Verkuyl’s theory is not an elegant theory of sentence aspect in the sense of ASPECT<sub>1</sub> (avoiding ASPECT<sub>2</sub> considerations), as he seems to believe it to be; it is a theory of “sentence Aktionsart” without recognizing “lexical Aktionsart” or “phrasal Aktionsart”.

This brings us back to the discussion of activities (cf. 1.1.), a class figuring prominently in Verkuyl’s work without being recognized as a class. Consider an example such as *?Judith ate sandwiches in an hour*. He comments: “*ate sandwiches* cannot occur with adverbials like *in an hour*, which evidently require something bounded” (p.6). However, this type of “boundedness” is not to be equated with the one expressed by perfective verb forms in morphological aspect languages. In Modern Greek (and many other languages having similar systems) one may very well use the perfective form in a sentence such as *Judith ate sandwiches* (e.g. *I Maria efaje biskota* ‘Mary ate (PERF) biscuits’<sup>22</sup>); yet the adverbial specification (*mesa*) *se mia ora* ‘in an hour’ is not possible. This is because *troo biskota* ‘eat biscuits’ is an ASPECT<sub>2</sub> type (“activity”) in which the perfective aspect designates the entire situation with its arbitrary temporal boundaries. The in-an-hour test pertains only to intrinsic boundaries, i.e. boundaries inherent in a telic situation.<sup>23</sup> I take it that *ate sandwiches* in English is ambiguous between a bounded and an unbounded reading in the sense of BOUNDEDNESS<sub>1</sub>, at least in an isolated sentence. To mark an unbounded<sub>1</sub> reading in a narrative context, one should probably use the progressive. Thus, the bare plural is compatible with a bounded<sub>1</sub> predicate, while the

<sup>22</sup> *Sandwiches* was replaced by *biscuits* in this example because the Greek equivalent *sanduits* has no overt plural form. A sentence like *I Maria efaje sanduits* would thus be ambiguous; it could also mean ‘Mary ate a sandwich’.

<sup>23</sup> The test is therefore suitable to distinguish between “aspect” and “actionality” in Bertinetto’s sense, cf. 2.3.



adverbial is not compatible with a bounded<sub>2</sub> predicate. In any case, English does not have a grammatical device to distinguish unambiguously between the bounded<sub>1</sub> and unbounded<sub>1</sub> "viewpoints" of an activity predicate such as found in the perfective / imperfective distinctions of Greek and similar languages; consequently, compatibility effects in aspect composition differ considerably. This typological difference is completely underestimated in Verkuyl's approach, as the distinction between activity and telic predicates on the one hand, and that between an unbounded<sub>1</sub> and a bounded<sub>1</sub> sentence aspect on the other is not an integral part of the theoretical machinery.

It is not surprising, therefore, that Verkuyl and other researchers working in a similar paradigm find a theoretical problem with Dutch sentences such as *Jan liep naar de winkel* (Verkuyl 1993:9) 'John walked to/towards the store', which may express completion but also allow a non-completion interpretation (*Jan liep in vijf minuten naar de winkel* vs. *Jan liep naar de winkel, maar halverwege werd hij geraakt* 'John walked to/towards the store in five minutes' vs. 'John walked to/towards the store but halfway he was hit')<sup>24</sup> In German and Dutch, it is precisely this class of predicates that oscillates between different aspectual interpretations because these languages have no proper ASPECT<sub>1</sub> operators: it is activities that are most hotly disputed with respect to different aspectual readings when found in isolated sentences; it is activities that result in "accomplishments" when bounded by quantized NPs, giving rise to the so-called "imperfective paradox"; and it is activities that allow both a perfective and an imperfective interpretation in the presence of in-an-hour type adverbials, giving rise to the confusion of BOUNDEDNESS<sub>2</sub> and BOUNDEDNESS<sub>1</sub> (activities are inherently unbounded<sub>2</sub> but may be contextually interpreted as bounded<sub>1</sub>)<sup>25</sup>. These problems can hardly be solved in a strictly unidimensional approach by lumping together the semantic distinctions of both ASPECT<sub>1</sub> and ASPECT<sub>2</sub> into a single binary syntactic opposition; their solution requires a more differentiated theory taking the interaction between lexicon and grammar into account.

<sup>24</sup> The English *John walked to the store* is different in that it is claimed to admit only the telic reading. This is probably due to the difference between the prepositions *to* and *naar*. The Dutch preposition *naar* is activity-affine and obviously sets no boundary in contrast to English *to*. - The translation 'but halfway he was hit' is Verkuyl's; 'but was hit halfway there' would probably be more elegant.

<sup>25</sup> In English, some of the indeterminacy of activities with respect to BOUNDEDNESS<sub>1</sub> is remedied by the progressive, a genuine ASPECT<sub>1</sub> marker. For example, the most normal way of uttering a situation like that expressed by the second Dutch example above would probably be *John was walking to the store, when...*, which brings English a step closer to the "viewpoint" marking languages. Nevertheless, many other cases of ambiguity between perfective and imperfective readings remain. On this view, it seems to me to be beside the point to consider the addition of adverbials as a "test" to visualize the covert viewpoints of isolated forms. Adverbials are part of the composite structure themselves and frequently seem to be the chief cues to making an interpretation possible. Cf. remarks on Depraetere in section 2.1.

### 1.5. Radical Selection Theories of Aspect

In the following two sections we will deal with various types of bidimensional approaches. As we have seen in sections 1.2 and 1.3, bidimensionality always seems to be a feature of a later stage in the development of aspect theories. Two separate semantic layers are distinguished here, which may be equated with the semantic areas of ASPECT<sub>1</sub> and ASPECT<sub>2</sub> as described above. ASPECT<sub>2</sub> is traditionally conceived of as a lexical property of verbs, but the recognition of aspect compositionality has led to the assumption of ASPECT<sub>2</sub> as a feature of phrases in these models as well. Note that bidimensional approaches sometimes avoid the bare term “aspect” for ASPECT<sub>2</sub> but introduce some sort of terminological distinction (as a rule, “aspect” is reserved for ASPECT<sub>1</sub>, while there is a distinct term such as “situation type”, “aspectual character”, “actionality” or the like for ASPECT<sub>2</sub>).

In the group of approaches claiming bidimensionality, the dominant paradigm is what Bickel (1997) called “Selection Theories of Aspect”<sup>26</sup>. To differentiate the models under discussion here from a subgroup of basically unidimensional time-schema approaches in which a selectional relationship between time-schemata and aspect morphology plays a certain role amongst many other things, I have renamed them “Radical Selection Theories”. These models grew out of the perfective / imperfective approach by increasingly taking into account the relevance of “Aktionsarten”. The latter were no longer regarded as derivational or word-formation categories, but were reinterpreted as the temporal characteristics of the semantics of verbs or verb phrases (ASPECT<sub>2</sub>) with which the morphological aspect categories (ASPECT<sub>1</sub>) interact in systematic ways. Whereas traditionally this interaction was often played down, as in the morphologically-oriented perfective / imperfective viewpoint theories (cf. 1.2), it now becomes the core concept in the “selection theories”. ASPECT<sub>1</sub> and ASPECT<sub>2</sub> are conceived of as being in a strict correspondence relationship (called an operator-operandum relation by some scholars) such that ASPECT<sub>1</sub> operators are phase-selectors that “pick out” or “select” matching phases (= temporal extensions on the time-axis) provided by ASPECT<sub>2</sub>. The latter is most often said to be a lexical property of verb senses (as in the “Aktionsart” tradition). Occasionally it is also conceived of as a property of verb phrases or even whole propositions (e.g. by Bickel 1997 and Csató 2000), though work on ASPECT<sub>2</sub> compositionality is underrepresented in selectionalist circles and even if it is recognized, ASPECT<sub>2</sub> properties are usually regarded as being lexically predetermined.

---

<sup>26</sup> The following heavily relies on Bickel’s excellent brief sketches of these models (Bickel 1997, 2000).



In order to establish a mapping relationship between ASPECT<sub>1</sub> and ASPECT<sub>2</sub>, ASPECT<sub>2</sub> properties cannot be stated in terms of holistic notions. They have to be decomposed in such a way that the matching phases to which ASPECT<sub>1</sub> operators have access become clearly visible. The two semantic ingredients in terms of which ASPECT<sub>2</sub> is modeled are the situation boundary (transition) and the phase between the boundaries, symbolized here by  $\tau$  and  $\phi$  respectively, following Bickel (1997). The meanings of verbs or verb phrases are said to possess different types of  $\tau + \phi$  configurations, defining their potential phase structure on the time-axis. For example, some verbs are characterized in their lexical-semantic structure by a  $[\tau\phi\tau]$  configuration, others may be  $[\tau\phi]$  or  $[\phi\tau]$ , while still others may simply lexicalize  $[\phi]$  or  $[\tau]$ . ASPECT<sub>1</sub> operators are then said to spell out appropriate parts of the underlying phase structure. For example, when the language in question has a general perfective / imperfective opposition, the imperfective aspect is the  $\phi$ -aspect and selects the  $\phi$ -part of the situation, while the perfective aspect is the  $\tau$ -aspect and picks out the  $\tau$ -part.

The interaction of ASPECT<sub>2</sub> configurations with the semantics of the ASPECT<sub>1</sub> operator gives rise to the different readings of aspect forms. For example, for “telic”  $[\phi\tau]$  verbs, the perfective aspect ( $\tau$ -aspect) has completive reading (the endpoint is reached), while for “inceptive”  $[\tau\phi]$  verbs, it has the inceptive (also called ingressive) reading of getting into the phase. The corresponding imperfective forms ( $\phi$ -aspect) express the stage before the endpoint (not necessarily implying that the endpoint must be reached) in the case of  $[\phi\tau]$  verbs, and the situation after having entered it in the case of  $[\tau\phi]$  verbs. The following is an example from French (taken from Garey 1957 and repeated for illustration by Bickel 1997), demonstrating how the semantic interpretation of aspect forms and the resulting verb classification are usually set up.

The French imparfait in *Il se baignait*. ‘He was bathing.’ and *Il se noyait*. ‘He was drowning’ has two different pragmatic implications (interpreted as truth-conditional effects by some authors). In the first case, it implies that the subject referent has already done some part of the action by the time of reference. In the second case, an analogous inference is not supported. In a selection theory this difference is explained in the following way: the imperfective  $\phi$ -aspect contained in the French imparfait selects  $\phi$  in different configurations. For the sake of argument, let us say that the ASPECT<sub>2</sub> configuration of *se baigner* is  $[(\tau)\phi(\tau)]$ , which would be a typical configuration for an activity. That is, it has temporal extension and is not specified for any obligatory boundaries, though it



may have arbitrary temporal boundaries.<sup>27</sup> This would then explain that, at whatever point within  $\phi$  the situation is “caught”, some part of it will always already have happened. By contrast, the ASPECT<sub>2</sub> configuration type of *se noyer* ‘to drown’ is  $[\phi\tau]$ , i.e. it contains a final transitional boundary  $\tau$ , which is taken to be an integral part of a “telic” verb’s meaning. Selection of  $\phi$  in the  $[\phi\tau]$  configuration has the effect that the  $\tau$  part is explicitly excluded and is therefore not implied by the aspect form.<sup>28</sup>

Selection theories account for the fact that ASPECT<sub>1</sub> and ASPECT<sub>2</sub> “rest ultimately upon the same ontological distinctions” (cf. fn.5) by providing the same representational format for the two: both pertain to the phase vs. change of phase distinction, but on different levels of analysis. The different readings of ASPECT<sub>1</sub> operators (both episodic readings such as inceptive, delimitative, completive, etc. for the perfective aspect, progressive, prestadial, iterative, etc. for the imperfective aspect, and non-episodic readings such as generic, habitual, conative, etc.) are largely explained through rules of interaction between ASPECT<sub>1</sub> and ASPECT<sub>2</sub>. Some authors even explicitly speak of “interaction meanings”.

Selection theories of aspect are relatively heterogeneous and one may easily split them up into several categories of approaches, whose differences can be touched on only very briefly here. There are considerable differences depending on whether or how strongly a specific theory relies on truth-conditional propositional semantics. I will not go into this issue here. There are also differences with respect to how the primitives of the theory are defined. Some define ASPECT<sub>2</sub> types in terms of features (e.g. telic, dynamic, durative). The hierarchical relationship between these features may be different depending on the approach. Others define the types immediately in terms of the  $\phi/\tau$ -distinction, but the representational formats differ widely. The number and nature of the ASPECT<sub>2</sub> types also vary; most approaches elaborate on the Vendlerian time-schemata, with certain additions. The dividing line between ASPECT<sub>2</sub> type and ASPECT<sub>1</sub> is likewise not entirely clear: for instance, Bache’s ASPECT<sub>2</sub> types (he calls them “action”) include punctual, telic, directed, iterative, habitual, i.e. he incorporates among his ASPECT<sub>2</sub> types some of

<sup>27</sup> Note that even in these theories, the status of activities is controversial. The description above rests on Breu’s and Sasse’s approach, while Bickel’s treatment of activities is different.

<sup>28</sup> A weak point in most of the radical selection approaches is the insufficient differentiation between accomplishments, in particular composite ones such as *build a house*, and those subgroups of Vendler’s achievements that allow a preliminary phase such as *drown*. In most of the selection accounts (e.g. Bickel, Breu, Sasse), both would have to be represented as  $[\phi\tau]$ . This is due to the fact that the effects of aspect compositionality have not been sufficiently taken into account, because they play a minor role in the object languages commonly treated in these frameworks.

the semantic nuances that other models count as senses of ASPECT<sub>1</sub> oppositions.

Prominent representatives of the selection approach are, among others, Johanson (1971, 1996, 2000a, 2000b), Timberlake (1985), Breu (1984, 1985, 1994), and Bickel (1996, 1997, 2000). An entire collection of articles written in different selection theory frameworks has just appeared (Breu 2000).

### 1.6. Composite Theories of Aspect

Radical selection theories can be said to exhibit only moderate bidimensionality insofar as they recognize two distinct components of aspectual relevance, one which continues the traditional “viewpoint” aspect opposition (ASPECT<sub>1</sub>) and one which continues the “Aktionsart” tradition (ASPECT<sub>2</sub>), but the two “dimensions” ultimately result from the distribution, over two distinct levels, of what are assumed to be basically the same cognitive categories: ASPECT<sub>1</sub> features systematically realize parts of ASPECT<sub>2</sub> schemata, i.e. serve to exploit the inherent aspectual potential of verb lexemes in systematic ways. By contrast, the models here called composite theories of aspect are genuine bidimensional approaches in assuming that ASPECT<sub>1</sub> and ASPECT<sub>2</sub> are semantic variables that are applied cumulatively.

Bertinetto (1997) and Smith (1997) are examples of this type of approach. Both propagate a strict distinction between ASPECT<sub>1</sub> and ASPECT<sub>2</sub> (Bertinetto: “aspect” and “actionality”; Smith: “viewpoint aspect” and “situation type”). There is no strong representational relationship between the two as is the case in the selection theories. Instead, they assume that the two layers or components of an aspectuality domain are associated with distinct semantic characteristics, consequently work independently and contribute different shades of aspectual meaning to sentences additively. Nevertheless, both authors define their ASPECT<sub>1</sub> categories in terms of boundedness. One might therefore ask whether such a cumulative approach is only a notational variant of the selection approach in so far as the cumulation is often redundant: inherent bounding characteristics of predicates are associated with the corresponding bounding characteristics of ASPECT<sub>1</sub> categories. Affinities between situation types/actionalities and the semantics of morphological aspect (such as the affinities between telicity or punctuality and the perfective aspect, and between states and the imperfective aspect), which are captured in selection theories by the interaction principles, would probably have to be treated in a cumulative approach by means of

redundancy rules (of the type “state implies imperfective” or the like), which, in effect, amounts to almost the same thing. And in fact, these theories often have a certain flavor of the selection approach. There are significant differences between Bertinetto’s and Smith’s work in this respect, which will be discussed in extenso in section 2 below. The general question of the empirical motivation for treating boundedness vs. unboundedness on two independent dimensions will be touched on in section 3.

Apart from these two authors and their disciples, there are relatively few scholars that have independently developed a full-fledged composite bidimensional theory of aspect. One is Bache (1985, 1995a, 1995b), who defines “aspect” (ASPECT<sub>1</sub>) and “action” (ASPECT<sub>2</sub>) as two independent sets of categories, the former non-propositional, the latter propositional. Some authors seem to oscillate between a composite and a selection approach. A composite approach is also envisaged in some recent work in the DRT framework, though this might be regarded as a transitory stage toward the development of a tridimensional theory; cf. 1.4 below.

### **1.7. A Multidimensional Approach: Functional Grammar**

A multidimensional approach to aspect is taken in the framework of Simon Dik’s Functional Grammar (FG). The following brief description relies on Casper de Groot (1995); cf. also Dik (1994). FG is explicitly designed as a multi-level “bottom-up” mechanism. Its treatment of aspect goes beyond the distinction between unidimensional and bidimensional theories in that aspect-relevant semantic units are distributed over a considerable variety of levels. It starts with the “state-of-affair types”, which are roughly equivalent to the ASPECT<sub>2</sub> notion and are stated in terms of binary features such as [ $\pm$  dynamic], [ $\pm$  momentaneous], [ $\pm$  control] and [ $\pm$  telic]. There are entailment rules taking account of feature redundancies, such as [- dynamic] > [- telic]. State-of-affair (SoA) types are assigned to predicates in the lexicon. Four further levels are distinguished. Each level has its own set of operators (indicated by  $\pi$ ) and a set of semantic functions of satellites (indicated by  $\sigma$ ). This is schematically shown in table 3.



LEVEL	OPERATOR	OPERATES ON	SATELLITE
1	$\pi_1$	Nuclear predication	$\sigma_1$
2	$\pi_2$	Core predication	$\sigma_2$
3	$\pi_3$	Extended predication	$\sigma_3$
4	$\pi_4$	Proposition	$\sigma_4$

Table 3: Levels of FG

ASPECT<sub>1</sub> (“the perspective on the internal time structure as one complete, indivisible whole (perfective), or as being non-complete or in progress (imperfective)” (de Groot 1995:36) is captured by operators such as PFV and IPFV on level 1. Note that de Groot uses the traditional terms “perfective” and “imperfective” here, but it is unclear how they interrelate with state-of-affair types or other aspectual dimensions.

There is a second set of aspect-relevant operators on level 1, called “inner phasal aspects”, which “bear on the phase in which a certain entity finds itself in relation to the occurrence of some SoA [state of affairs] in which that entity participates” (de Groot 1995:37). Inner phasal aspects operate within the temporal domain of SoAs. Three such operators are assumed: Ingressive (*John starts crying*), Progressive (*John is crying*), Egressive (*John stops crying*).

Aspect operators having scope over core predications (level 2) include “outer phasal aspect” and “quantificational aspect”. Other, non-aspectual operators on this level are polarity, tense, and different modal operators. Outer phasal aspect operators “specify some phase outside the temporal domain of SoAs” (de Groot 1995:37), for example Prospective (*John is going to cry*), Recent Perfect (*John has just cried*), and Perfect (*John has cried*). Quantificational aspect operators are grammatical means to quantify over SoAs. While iterativity and semelfactivity are regarded as inherent to the semantics of predicates, two other traditional notions of “verbal plurality” are captured by quantificational aspect: habituality and frequentativity (p. 38).

No genuine aspect operators are posited for levels 3 and 4, but aspect-relevant effects may perhaps emerge from the interaction with propositional-oriented modality, which operates on level 3, and speech act operators on level 4. Operators are hierarchically ordered, scope differences allegedly being reflected in the order of grammatical morphemes with respect to the position of the verb (“ $\pi_4 \pi_3 \pi_2 \pi_1$  predicate  $\pi_1 \pi_2 \pi_3 \pi_4$ ”, p. 40).

In spite of all its multidimensionality, it appears that the model is still not differentiated enough, as it has little to say about the interaction of “SoA type” and “perspective operators”, the core problem of aspectology. Moreover, the examples given in de Groot (1995) and other publications in the same framework reveal that the delimitation between the two is not entirely clear. For example, if Hungarian preverbs such as *fel-* ‘up-’ and *be-* ‘into-’ - which are parts of lexical verbs with their own specific lexical semantics, i.e. something that would be attributed to “predicate formation” in the FG framework - are also regarded as manifestations of PFV-operators on level 1, one may ask what their contribution to SoA type on the level of predicate formation is and how this contribution can be differentiated from its function as a PFV-operator on level 1.

### 1.8. Discourse Theories of Aspect

Classic comprehensive works on aspect in discourse from a functional perspective are Hopper (1982) and Thelin (1990b). Adherents of discourse approaches to aspect proceed from the assumption that “aspect ... cannot be fully understood unless treated as a function of discourse organization assigned only secondarily to individual propositions or sentences” (Thelin 1990a:22). In functional discourse approaches, aspect is usually analyzed in terms of the notions of “foreground” and “background” (Hopper 1979, Reinhart 1984, Thelin 1990a, Payne 1992, etc.). Foreground properties are typically attributed to or equated with the story line of a narrative discourse, which depicts events in a sequence. The scenery, in which the story line is embedded, constitutes the background.

It has long been known that morphological aspect categories are crucially involved in the temporal organization of units of narrative discourse, such as paragraphs. For example, in the successive predications that constitute part of a cohesive text, situations may not only be presented in a sequence, as typical for the story line, but also as simultaneous or as intersecting each other. The relationship between situations in cohesive discourse is known by the term “taxis”, introduced by Jakobson (1957/1971:135: “Taxis characterizes the narrated event in relation to another narrated event and without reference to the speech event”). The notion of taxis also plays a role in the more recent Russian literature on aspect, cf. Maslov (1988), who proposes a definition that is perhaps a bit more intellegible than Jakobson’s: “Taxis is a category which defines the “action” denoted by the predicate in terms of its relations with another “action”, named or implied in the given utterance, that is, the chronological relations between them (simultaneity, precedence or sequence), and also the opposition of

the secondary "action" to the principal one" (1988:64). The three principal taxis configurations relate to the perfective / imperfective distinction in the following way: **sequence** = PERF + PERF (in an "anteriority/posteriority" relationship, associated with the foregrounded story line); **simultaneity** = IMPF + IMPF (associated with the background); **incidence** (PERF + IMPF; foreground + background; main foreground event cutting into background event). - A taxis-related concept is Declerck's (1991) notion of "boundedness" (though conceived of from a slightly different theoretical perspective); we will come back to this in section 2.1 below.

In functional discourse theories of aspect, it is often (explicitly or implicitly) assumed that taxis is a factor independent of aspect and tense, and that it is the hierarchical relationship between these components that generally determines phenomena of temporal reference in texts (Thelin 1991). A serious problem of functional discourse theories of aspect, however, is their failure to explicate the various discourse structures that allegedly give rise to aspect configurations. If taxis is a "category" superordinate to aspect, how does it come about? In other words, there is no proper theoretical bridge between the results of text analysis, which is usually a post festum act (i.e. an analytical rather than a generative procedure), and observations about the behavior of categories of conventionalized grammar. It is difficult to see how the conventionalized interaction of aspect-relevant components in a specific language just "emerges" from discourse conditions. Another problematic characteristic of functional discourse theories of aspect is their general inclination to restrict their research interest to the narrative text type. Nevertheless, we have already pointed out (1.1.) that taxis is an important, perhaps the most important criterion for the assumption of an ASPECT<sub>1</sub> dimension as distinct from ASPECT<sub>2</sub>.

There is a different approach to aspect in discourse using the formal framework of Discourse Representation Theory (DRT). Serious aspect research in DRT begins with the reaction to a number of papers by Lascarides and others (e.g. Lascarides 1992), demonstrating the insufficiency of Kamp's (1981) original assumption that the interpretation of temporal relations in a discourse can be entirely predicted on the basis of linguistic information provided by the syntactic analysis of the sentences of that discourse. In other words, discourse is conceived of as totally "compositional" in the original version. Lascarides and his associates propose a set of "specific rules" which are needed for the interpretation of "exceptional cases", in which world knowledge plays a prominent role. Little by little, several authors have shown that the burden of world knowledge rules can be considerably relieved if rules



relating to ASPECT<sub>1</sub> distinctions (e.g. Castelnovo 1991, 1995, who calls them “perspective points”) and rules relating to ASPECT<sub>2</sub> (usually referred to as “Aktionsart”, e.g. Vet 1995), are incorporated.

DRT, at least in its original conception, is distinct from the functional models discussed above because it proceeds from the sentence level rather than from the structural characteristics of larger discourse units such as the paragraph or text, in terms of which functionalists seek to explain aspectual phenomena. DRT constructs an ongoing, dynamic representation of discourse, in which the meaning of a sentence contributes to the meaning of the text. The perspective is thus sentence → text, while the functional models adhere to a text → sentence perspective. However, there are interesting studies in the DRT framework showing that both ASPECT<sub>1</sub> and ASPECT<sub>2</sub> features can be overruled by yet another type of aspect, something which is called the **discourse aspect** of a sentence, a notion due to Caenepeel (1989). For example, Boogaart (1995) shows, citing examples from Dutch, that the initial and final bounds of a situation are constituted, at text level, by other situations; “more specifically, they are constituted by situations that are known to be incompatible with the situation at hand on pragmatic grounds. The clause-level, linguistic contribution of Aktionsart is in this analysis restricted to specifying whether the final bound of a situation is in fact the ‘well-defined endpoint’ that was already implied at clause-level, in the case of telic situations, or rather a relatively arbitrary one, in the case of atelic situations” (Boogaart 1995:233): The notion of discourse aspect (ASPECT<sub>3</sub>, as it were) is obviously related to the “taxis” concept. It is not surprising that it is brought into the discussion by scholars working on Germanic languages, where ASPECT<sub>1</sub> features are largely a matter of interpretation on the basis of interclausal or intersentential relations, as Bäuerle (1994) has already noted. In any event, this adds a new perspective to DRT research on aspect in that aspectual features are reinstated into the sentence from the discourse.

Since two of the books reviewed below (Bertinetto et al. 1995a and Smith 1997) present detailed accounts of aspect in DRT, we will defer further discussion until section 2.

### 1.9. A Brief Interim Stocktaking

We have seen that the history of contemporary aspect research originates in two fundamentally different strands of research traditions. Originally both of them are unidimensionally oriented. One is concerned with a temporal viewpoint opposition (called ASPECT<sub>1</sub> above), which it detects in

the morphological systems of certain languages but not in others. The aim of research in this tradition is to describe and functionally or cognitively explain this viewpoint opposition in those languages where it is morphologically manifest. The other tradition is concerned with the elaboration or refinement of the Aristotelian state/event etc. distinctions (called ASPECT<sub>2</sub> above). The aim of research here is to formulate statements about the temporal reference properties of sentences in terms of these distinctions. These statements are intentionally universal, but in actual fact the object languages on which the research is based are confined to a very small number of (mostly Germanic) languages.

Over the course of time, group 1 researchers have come to the conclusion that the temporal viewpoint oppositions expressed in morphological categories cannot be properly analyzed without reference to the inherent temporal characteristics of verbs related to such ontological distinctions as the state / event or the boundedness / unboundedness distinctions. They realize that they already have a tool at hand, which may prove helpful in investigating the interplay of viewpoint oppositions with such inherent ontological characteristics: the theory of Aktionsarten. The latter is now freed of its Slavacist background and amalgamated with the Vendlerian time-schema approach. Vendler classes turn into the modern makeup of Aktionsarten. This leads to bidimensional theories of aspect, particularly selection theories.

In the other camp, the affinity between the time-schemata and Aktionsarten has also not gone unnoticed. More and more researchers familiar with the continental tradition are ill at ease with the term "sentence aspect", as they realize that what they are talking about has little to do with temporal viewpoints but is in fact related to traditional Aktionsarten distinctions. Some leave it at that and (unduly) relabel their "sentence aspect" as "sentence Aktionsart", but others go a step further. As soon as researchers begin to look at aspect morphology languages, such as French, Italian, Spanish, Greek (not to mention Navaho or Iroquoian), semantic distinctions relating to viewpoint re-enter the scene. Moreover, a considerable number of scholars have developed the idea that viewpoint aspect is not necessarily restricted to morphological categories or overt function words ("aspect operators"), but may also be looked upon as a "covert" category manifest in the semantic interpretation of a predicate. Traditional "non-ASPECT<sub>1</sub> languages" such as German or Dutch would be of the latter type and thus suddenly become "aspect languages": ASPECT<sub>1</sub> is not morphologically expressed but is part of the semantic interpretation of a sentence's predicate distinct from its ASPECT<sub>2</sub> characteristics. This leads to a different type of bidimensional theory,

which incorporates ASPECT<sub>1</sub> as a separate semantic level into a basically time-schema oriented approach.

What we are faced with, then, is a conglomeration of different degrees and different kinds of approximation of two fundamentally different erstwhile unidimensional approaches, one basically ASPECT<sub>1</sub> oriented, the other basically ASPECT<sub>2</sub> oriented, with the one gradually incorporating elements of the other. The original association of ASPECT<sub>1</sub> with inflectional morphology (or otherwise, overt grammaticalized aspect operators) and ASPECT<sub>2</sub> with the lexicon has only been partially (and sometimes inadequately) abandoned. This results in diverging ideas about the relevance and scope of the two semantic domains. Given the additional discrepancy between the different underlying semantic models (non-formal, neo-Reichenbachian, Davidsonian, etc.), it is at present unclear whether it could ever be possible for these approaches to meet somewhere in the middle.

We will now turn to the review of five recent books on aspect. Let us see whether any of these offers a way out of the dilemma.

## **2. Evaluation of Five Recent Books on Aspect**

### **2.1. Bertinetto et al. (1995a)**

This and the following volume, reviewed in 2.2, originated in a large workshop on "Temporal Reference, Aspect and Actionality", held in 1993 at Cortona in northern Italy in conjunction with a meeting of the EUROTYP (European Science Foundation Programme on Language Typology) Theme Group on Tense and Aspect. The first volume contains more abstract and theoretically-oriented papers, while the second volume (see section 2.2.) is intended to deal with the cross-linguistic perspective. Papers come from both the workshop and the EUROTYP group. Some of them have been considerably revised for publication and incorporate the feedback from the meetings. The conference brought together a considerable variety of approaches, represented by internationally renowned scholars of different persuasions. It is therefore safe to say that they represent the state of affairs in the mid-nineties.

The first volume divides into four major parts: (1) "Actionality", with contributions by Bertinetto & Squartini, Brinton, Depraetere, Desclès & Guentchéva, and Paducheva; (2) "Semantics and Syntax", with contributions by Bonomi, Chierchia, Delfitto & Bertinetto, Lenci, Pustejovsky & Busa, Sanfilippo, and Verkuyl; (3) "Discourse Relations",



with contributions by Boogart, Castelnovo, Castelnovo & Vogel, Lo Cascio, and Vet; (4) "Syntax and Semantics", with contributions by Bianchi & Squartini & Bertinetto, Dini, Giorgi & Pianesi, Nunes & Thompson, Stowell, and Zagona.

*Part 1.* "Actionality" is the name given to the dimension we called ASPECT<sub>2</sub> in the preceding section. The term was invented to replace the German "Aktionsart", which is nevertheless still used by many contributors to this volume. The term "Aktionsart" even appears to spread into circles where it was less well-known formerly (e.g. DRT, see comments on Part 3 below). It is interesting to note how diversified the association of this notion (whatever it is called) with the various levels of linguistic structure is in the different contributions. For Bertinetto, the notion of "actionality" is limited to "verb classes which exhibit a distinct and prominent behaviour w.r.t. elements (such as temporal adverbials) which are also relevant in the definition of tense-aspect categories" (p.23). Some writers in the DRT framework in Part 3 also define "Aktionsarten" as part of "the hearer's knowledge of the lexicon, and more especially of the properties of the verbal classes" (Vet, p.305). Brinton examines the "Aktionsart of deverbal nouns in English" (p.27). Depraetere talks about the "effect of temporal adverbials on sentential Aktionsart" (p.43). In Part 2, Pustejovsky & Busa (p 159ff.) are concerned with what they call "event sorts" on the phrasal level (V + theme argument). All this reflects a very important attainment in the field of contemporary ASPECT<sub>2</sub> research, already hinted at in section 1, viz. the relevance of the ASPECT<sub>2</sub> dimension both on different compositional levels (verb, predicate, phrase, sentence) and on different levels of linguistic analysis generally (basic lexicon, word-formation, syntax). - Some brief comments on the contributions to the first part follow.

Brinton clearly shows that the different noun-forming devices in English (Romance derivational suffixes such as *-age*, *-al*, *-tion*, etc.; gerund; conversion) have different "Aktionsart"-preserving properties. Moreover, using the well-known analogy between the mass / count distinction and imperfectivity / perfectivity in terms of "grinding" and "packaging", she also claims that the "secondary" unbounding / bounding effects of ASPECT<sub>1</sub> distinctions are not only found in aspect markers on the verbal morphological level, but also in certain nominalization devices: "In English, both Latinate derivational suffixes and the native zero affix serve to perfectivize or package the aktionsart of the verb, much as the simple tense does in the verbal domain, with events [sic!]<sup>29</sup> presented as bounded

---

<sup>29</sup> This is a good opportunity to lament about the many readings of the term "event", which are so horribly confusing. Here, "event" obviously means telic situations, excluding activities. Elsewhere, it is

wholes, activities treated as either indeterminately or determinately bound, and states remaining inherently unbound. The gerund serves to imperfectivize or grind the aktionsart of the verb, much as the progressive does in the verbal domain, resulting in unbounded situations” (p.39).

Depraetere points to the importance of temporal adverbials as ASPECT<sub>2</sub> components, an issue often neglected in compositional aspect theories. She demonstrates that, in addition to argument NPs and PPs and their quantificational and thematic properties, both time-position adverbials and adverbials of span and duration influence values of telicity and boundedness (in Declerck’s sense, which is akin to, but not identical with, our BOUNDEDNESS<sub>1</sub>, see section 1.1 and below) in English. Bertinetto’s above-mentioned definition of “actionality” falls short of this insight, as do many of the aspect models discussed in section 1, in which adverbials are chiefly used to test predetermined aspect values of constructions rather than being regarded as integral parts of constructions bearing these values.

Desclès & Guentchéva ask “Is the notion of process necessary?”. Yes, it is; processuality in the form of imperfective activity (as opposed to perfective, i.e. secondarily bounded activity) is among the most important ingredients of ASPECT<sub>1</sub> distinctions, as repeatedly pointed out in section 1. The authors add the interesting observation that there are linguistic and conceptual differences between “states of activity” (*The airplane is in flight*) and processes in progress (*The airplane is flying*). In states of activity “all phases of the denoted situation SIT are construed as being effectively equivalent”, while in processes in progress “all phases of SIT are construed as being different” (p.60). This difference has its repercussions in the compatibility with adverbials; for example, gradual and intensive adverbials can be combined with a process in progress but not with a state of activity. More on progressives and states is given below (section 2.3).

The goal of Paducheva’s paper is to show that the application of Vendler classes (called “taxonomic categories”) to Russian is considerably facilitated if (1) the system is enlarged by taking agency properties into account (e.g. controlled activity vs. non-controlled process), (2) a distinction is made between primary categories and derived categories, the latter serving secondary bounding and unbounding effects in the syntax (having an ASPECT<sub>1</sub> function in our terms), and (3) a consistent format of meaning definition with reference to semantic components is

---

found to designate one level higher up in the hierarchy, namely dynamic situations including activities but excluding states. Other writers even use it as a synonym of “situations”.



developed. The article is difficult to read because of stylistic deficiencies and the lack of translations of Russian examples in many cases, but to the extent that it is comprehensible the approach sounds reasonable. Of particular importance is the lexicologically-oriented view, according to which both primary and derived classes are looked upon as parts of the organization of the verbal lexicon, but with strong grammatical effects.

Bertinetto & Squartini establish a new "actional" class, that of "gradual completion verbs". It is a nice example of Bertinetto's method of defining verb classes on the basis of their behavior with respect to adverbial co-occurrence restrictions, for exposition of which see section 2.2.

*Part 2.* Two hotly debated issues constitute the leitmotifs of the articles in this part, the complex comprising universality, habituality, or genericity on the one hand, and the effects of split intransitivity on the other. As for the first complex of questions, there is a tendency, reflected in some of the papers, to delve more deeply into the compositional problems of habituality, leading to the distinction of several types of habituality depending on the contribution of the various elements (quantificational adverbials, NPs). Incidentally, it is interesting to note that all authors that stress, in one way or another, the idea that habituality belongs to the ASPECT<sub>1</sub> dimension and thereby differs semantically from inherent aspectuality (e.g. by arguing that habitual states are not identical conceptually with inherent states) are native speakers of Italian, where habituality is expressed by the imperfective aspect.

Bonomi deals with the three readings of the temporal conjunction *quando* 'when' in Italian and their equivalents in other languages: "universal" ('every time that...'), "existential" ('there is a time such that...'), and "background" ('in the period in which...'). The main idea is that despite the different readings, the conjunction should not be considered as an ambiguous lexical item, because these readings can be explained on the basis of a systematic connection between aspectual (i.e. ASPECT<sub>1</sub>) categories and "quantificational structures" (by which she means the relationship between the restrictive clause, which identifies a set of entities, and the main clause, which assigns predicates to these entities): imperfective in both clauses determines the universal, perfective in both clauses the existential, and the sequence of imperfective + perfective the background reading. A proper formal treatment of these facts requires what she calls a "relational" approach to aspect, which goes beyond the simple clause (cf. discourse approaches below).

Delfitto & Bertinetto take the two main readings of the Italian imperfect (progressive and habitual) as a point of departure to present their



bidimensional aspect theory, according to which the interpretations of morphological aspect forms are due to the interaction of “aspect” (ASPECT<sub>1</sub>) and “actionality” (ASPECT<sub>2</sub>). We defer the discussion of this theory to section 2.3. Suffice it to say here that habituality is said to be one of the manifestations of the imperfective aspect, which “generally involves the introduction of a strong (universal) quantifier over times” (p.129). Reference to so-called “familiar” times (as in the progressive reading) depends on discourse-linking, i.e. on “restricting the interpretation of the universal quantifier to contextually prominent times” (id.). By contrast, the habitual reading allegedly corresponds to regular universal quantification over times, i.e. quantification that does not involve discourse-linking.

Lenci devotes his contribution to the semantic representation of non-quantificational habituals. The difference between habitual sentences with and without a quantificational adverbial is not unknown; it is also touched on in Bonomi’s article quoted above: the imperfective determines the habitual (in her terminology “universal”) reading only in the absence of a quantificational adverb, otherwise it is the adverbial that determines the reading. In formal treatments of habituality, non-quantificational habituals are traditionally accounted for by means of a generic operator, whose semantic content resembles a quantificational adverbial. But, as Lenci now shows convincingly, non-quantificational habituals are subject to all kinds of restrictions, especially with respect to the inherent temporal characteristics of the predicates involved (i.e., in our terms, their ASPECT<sub>2</sub> sensitivity), while quantificational ones are possible with every kind of predicate. The solution offered proposes that habituality must be explained as a non-quantificational phenomenon for those sentences which have no overt quantifier. Such an explanation is given by invoking a “function of stativization”: habitual sentences without a quantifier form a particular kind of stative, because they predicate permanent properties of the subject (in the form of a potentially unlimited set of events). This idea is not new; in fact it underlies Carlson’s generic operator, criticized by Lenci, which induces the change of a s(tage)-level predicate into an i(ndividual)-level one. However, original i-level predicates hold for their subjects in all cases, while derived (“stativized”) i-level predicates do not imply this. Thus, Lenci’s function of stativization is very different from the standard version of Carlson’s generic operator: while the latter simply changes the type of a predicate, the function of stativization produces a stative sentence without cancelling the original type-specific peculiarities of its predicate. In the final part of the paper, a formal representation accounting for these observations is presented in DRT notation.

Verkuyl elaborates on the distinction between different sorts of habituality. In English, “there seem to be two structural places where habituality may arise: (a) the verb itself; (b) the internal argument NP whose reference is not restricted to just the specified quantity of objects..., but rather to tokens of one or more categories” (p.196). Thus, *Mary walked to the church* may pertain to a habit in which one specific church is involved, but it may also involve different churches<sup>30</sup>. In addition to investigating the relation between the two types of habitual interpretation, the paper has the further goal of giving a technical explanation, in terms of Verkuyl’s model of “PLUG-grammar”, of the alleged fact (probably not uncontroversial) that sentences in the past such as the above are forced into their habitual reading rather than having it *sui generis*. Unfortunately, the paper has little to say about the intricate question of systematic ambiguities resulting from the semantic properties of the NPs in such sentences (specific vs. non-specific reading, sort vs. non-sort reading, generic vs. non-generic reading, etc.), which also seems to be at issue here.

The contrast between individual-level and stage-level predicates is brought into the “Aktionsart” discussion in Chierchia’s contribution. The author is known for his “Inherent Genericity Hypothesis”, which says that i-level predicates only admit generic uses, while s-level predicates can have both episodic and generic uses. German data from Kratzer and Diesing are discussed in the light of this hypothesis. It turns out that the potential of differentiation between generic and existential readings by word order in certain constructions can be predicted by this hypothesis.

The relationship between aspectuality and split intransitivity, which forms the subject of Pustejovsky & Busa’s and Sanfilippo’s papers, has already been touched on in section 1.3.3. Subjects of intransitive verbs are known to differ in the way they can effect durativity and telicity. For example, a subject with “cumulative reference” may induce a durative reading on an unaccusative verb which would otherwise be telic, while no such aspectual shifts are possible with unergative verbs. Both contributions offer formal solutions for these facts in different frameworks: Pustejovsky & Busa present a treatment in terms of “event composition” in the generative lexicon context, while Sanfilippo presents an HPSG analysis.

*Part 3* is devoted to “Discourse Relations”. The five articles compiled here are all more or less strongly committed to some version of DRT; cf. section 1.8 for a general assessment of work on aspect in this framework,

---

<sup>30</sup> Not all native speakers of English would agree to this. As a matter of fact, those whom I have consulted all claimed that a reading involving different churches is not possible with the definite article, though it is perfectly acceptable with the bare singular (*walked to church*).

which seems to be developing into an increasingly differentiated and increasingly multidimensional type of approach.

Boogaart argues that, first of all, temporal relations in texts, in the absence of explicit markers such as adverbials, are determined by “aspect” (in the sense of the traditional perfectivity / imperfectivity dichotomy, i.e. our ASPECT<sub>1</sub>) rather than by “Aktionsart” (here understood as Vendler classes), as assumed in earlier versions of DRT. In languages that have grammaticalized forms of aspect these will always overrule the contribution of “Aktionsart” in determining the temporal ordering of situations. Second, the contribution of both “Aktionsart” and aspect may be overruled by the “discourse aspect” of a sentence. The notion of discourse aspect envisaged here is in some sense a blend of the functionalist notion of “taxis” and Declerck’s (1991) “boundedness” concept. Several points remain problematic with this approach, however. There are at least four types of boundedness that will be involved here: from section 1.1 the reader will remember BOUNDEDNESS<sub>1</sub> (associated with ASPECT<sub>1</sub>) and BOUNDEDNESS<sub>2</sub> (associated with ASPECT<sub>2</sub>). From Declerck’s discussion the taxis-related interpretation of boundedness (bounds of situations determined by one another) enters in as a third type. Finally, there is also boundedness by temporal location in the past. These different strands of boundedness have to be disentangled before one can put such a model to work. Moreover, I have always found it extremely difficult to understand how boundedness, in particular “initial bounding”, can be ascertained exclusively in terms of contextual interpretation (in the absence of overt marking devices).<sup>31</sup>

Vet’s paper once more points to the importance, in DRT treatments of tense/aspect relations, of the interaction between aspect markers and “Aktionsarten”. Here, “Aktionsarten” are not only taken in the sense of Vendler classes, but are generally viewed as constituted in “the hearer’s knowledge of the lexicon” and more specifically of the properties of verbal classes. This knowledge “can contribute to a considerable reduction of the set of possible interpretations of a given fragment”. Examples are given (mostly from French) to show how certain predictions in this respect can be made on the basis of the difference between “non-agentive and agentive transitional verbs”.

---

<sup>31</sup> For instance, it is commonly held that in an example such as *Jameson entered the room, ...and switched off the light. It was pitch dark around him...* the first clause of the second sentence (*it was pitch dark around him*) is an inchoative, “bounded to the left”, because the state of darkness is not unbounded here; it is initiated by the event of switching off the lights. But according to my intuition, inchoativity (= *it became pitch dark around him*) is not necessarily the meaning conveyed by the text. In fact, such constructions evoke the impression of a narrative leap: the inchoative phase is skipped and the protagonist immediately finds himself immersed in the state of darkness.



The other three articles in this part are concerned with the analysis of a number of topics in the framework of a specific version of a post-Reichenbachian time theory advocated by the authors and sharing some basic ideas with the treatment of tense and aspect elaborated in the framework of DRT. In this context, Castelnovo discusses the Italian adverb *ora* 'now' (and its counterparts in other languages) in terms of its property of referring to a "perspective point"; Castelnovo and Vogel show how the *consecutio temporum* in reported speech can be explained in terms of this theory; and Lo Cascio presents a general account of the treatment of tense and aspect in Romance and other languages in this framework.

*Part 4.* The common denominator of the articles in this part, headed "Syntax and Semantics", and its delimitation from the preceding ones remains unclear. The six articles united here deal with various syntactic, semantic, and discourse perspectives, using a variety of formal frameworks.

Bianchi, Squartini & Bertinetto discuss the interplay of the syntactic position of punctual adverbs of the type "at time X" with the aspectual interpretation of whole sentences. The phenomena observed (e.g. that the Italian progressive and perfect both require a punctual adverb to occur in peripheral positions, not inside the predicative nucleus) are explained by the proposal that the external adverbials denote the "perspective point" (cf. Castelnovo and Lo Cascio above), "a vantage point by means of which the speaker creates a particular perspective on the event" (p.321). It is shown that the syntactic relevance of this perspective point is related to its relevance in the informational structure of the text, the external positions always requiring some kind of textual linking.

The rest of the papers are marginal with respect to the main topic of the present survey and I will only briefly enumerate them here. This is not to say, however, that they do not offer valuable contributions.

Dini deals with ambiguities in Italian elliptical constructions involving the comparative (*Giovanni ama sua moglie più di Antonio*), proposing a solution in terms of a combination of a "theory of higher order unification and a GB framework" (p.325), two approaches that are hard to reconcile; I wonder how this may work. - Giorgi & Pianesi treat differences in the imperfective past reading ("present-under-past-reading") between Italian on the one hand and German and English on the other hand in a neo-Reichenbachian framework. - Nunes & Thompson discuss interclausal tense relations using Chierchia's version of DRT. - Finally, the contributions by Stowell and Zagana deal with the

representation of tenses in a generativist syntactic framework. Both authors are adherents of a basically “predicative” (as opposed to “referential”) theory of tense construal, in which tenses are considered as predicative expressions, “expressing a relation of temporal ordering between the UT [= utterance time] and the time of the event or state expressed by the verb phrase” (p.389).

The present volume offers a wealth of interesting observations and a rich array of applications of contemporary models. Its focus on Romance languages, in particular Italian, is extremely welcome, as it extends the traditionally English-centered empirical basis of formal research on aspect. What is missing is some kind of summarizing essay, pointing to similarities and dissimilarities in the various approaches and linking them to one another and to the traditions they stand in. It would have been nice if someone had assumed the role of the ranger to guide the reader through the jungle by means of a comprehensive introductory article. Higginbotham’s two-page preface is all too short to achieve this.

## **2.2. Bertinetto et al. (1995b)**

The second volume of the “Temporal Reference, Aspect, and Actionality” collection bears the subtitle “Typological Perspectives”. It contains contributions by Dahl, de Groot, Thieroff & Budde, Bache, Gebert, Lindstedt, Smith, Tommola, Heinämäki, König, Metslang, Ebert, Boulle, Fici Giusti, Janssen, Mittwoch, Aksu Koç, and Giacalone Ramat. Readers interested in the cross-linguistic investigation of aspect systems should not take the subtitle too seriously: the typological relevance actually displayed is disappointing. Some of the contributions even lack the mild comparative perspective promised in the preface by Östen Dahl. There are several articles dealing exclusively with English (such as Bache, Mittwoch, etc.) or predominantly with English, citing just a handful of examples from other languages (de Groot, Smith, Janssen, etc.). Admittedly, the second volume contains articles treating languages such as Finnish and Estonian, but is the comparison of Finnish or Estonian with English more “comparative” or more “typologically comparative” than the comparison of Spanish, Italian, Dutch, Russian, and Greek with English, which is the subject of many of the articles in the first volume? The rationale for the distribution of the articles remains obscure, at least to me; the only possible parameter I can think of is that the contributions to the first volume are more closely affiliated to what we called, in section 1, the “Anglo-American tradition” (= postmodern offshoots or repairs of, or elaborations on, the Vendlerian approach, cast into some formal framework), while the second volume also permits representatives

of other persuasions to raise their voice. It would be worrying if such a distinction came to be equated with labels such as "theoretical" vs. "typological".

Let us first quickly go through the less typologically-oriented articles. - [For de Groot's paper on aspect in Functional Grammar see 1.7]. - Thieroff & Budde set the scene for a methodological exercise (long overdue) by asking "Are tense and aspect categories?". This is a commendable effort; unfortunately, it is perhaps not straightforward enough in the way it is carried out here since the relationship between linguistic categories, categorizations, semantic concepts, and phenomenological areas open to comparison across languages has yet to be sufficiently clarified. - Bache takes "Another Look at the Distinction Between Aspect and Action", advertising a strict bidimensional approach where "aspect" (ASPECT<sub>1</sub>) and "action" (ASPECT<sub>2</sub>) are defined as two independent sets of categories, the former non-propositional, the latter propositional (cf. 1.6). - Lindstedt discusses different types of perfectivity in terms of a distinction between "material bound" (telicity) and "temporal bound". In my estimation, it would have been wise to attribute this distinction to the different dimensions as envisaged in this paper ("material bound" = ASPECT<sub>2</sub>, "temporal bound" = ASPECT<sub>1</sub>), since they may both be relevant in the same language, rather than associating them with distinct language types (e.g. Slavic vs. Romance), as the author seems to imply. - Smith's paper is concerned with a similar distinction, called "intrinsic bound" vs. "independent bound" here, terms going back to Heinämäki (1984). On the difficulty of keeping track of all these different concepts of boundedness see section 3.

Lack of space prevents me from giving more detailed comments on the interesting collection of four papers on the "perfectal" aspect: Boulle revitalizes the classic distinction between "perfective" and "perfectal", resulting in a narrower definition of perfectivity than is usually proposed; Fici Giusti throws some light on the frequently neglected perfectal categories of Slavic languages; Janssen deals with the interpretive difference between the sequences "pluperfect + preterit" and "pluperfect + pluperfect" in English; Mittwoch presents a neo-Reichenbachian analysis of the English perfect tenses (present, past, and future perfect).

There are two further papers without any closer thematic affiliation: Aksu-Koç's look at the interrelation between tense and modality in Turkish, and Giacalone Ramat's study of the acquisition of Italian tense-aspect distinctions by second language learners.



This leaves us with seven aspect-related articles with a stronger typological or cross-linguistic perspective and in which new empirical data are brought into the discussion.

Three of these articles deal with Baltic Finnic (Finnish and Estonian). Tommola discusses the semantics of verbs of becoming and remaining and their role in the interaction between ASPECT<sub>1</sub> and ASPECT<sub>2</sub> in these languages, which have no genuine ASPECT<sub>1</sub> markers. Unfortunately, the paper suffers from a lack of terminological transparency and it is not clear whether the author pursues a unidimensional or a bidimensional approach. - The intricate interrelation of different aspectual strands - aspect markers or constructions on the syntactic level and verb semantics as a lexical property - is much more obvious in two papers on the progressive periphrasis in these two languages (Heinämäki on Finnish and Metslang on Estonian). Both languages are of extreme interest for a historical-typological investigation into the evolution of progressives. As is well-known (cf. Heine et al. 1991 passim, esp. 214-215), progressives often develop from periphrastic constructions using the copula (or a similar predicate marker) + a verbal noun marked as locative. In the languages under discussion, this is the *ma*-infinitive in the inessive (Finnish *olla tekemässä* 'to be in doing'). For Finnish, it can be clearly shown that this construction is grammaticalized, though apparently not as deeply integrated into the verbal system as the English progressive. Its acceptability and interpretation depends on the ASPECT<sub>2</sub> characteristics of the respective verb. In particular, the progressive is best with purposeful (agent-controlled) activities, and ungrammatical with states and non-agentive events. - In Estonian, the progressive is in an earlier stage of grammaticalization. It is still optionally interchangeable with the simple present (which is the "unmarked" construction in all cases), but the factors that favor or disfavor its use are very similar to those found with more thoroughly grammaticalized progressives. Interestingly, in both languages, the locative character of the construction is still important for a number of pragmatic constraints on its use (for example, the correspondence of *I am in doing...* to the question *where are you at the moment?*, whereas the progressive is not normally used in an answer to the question *What are you doing?*).

A different aspect of the progressive, its use in non-verbal predication, is examined in König's paper. As is well-known, the English progressive can be employed with the verb *be* in sentences indicating "wilful temporary behavior" (*You are being rude*). This seems to be a rare phenomenon in the languages of the world; only two languages have been found so far that use a progressive periphrasis (*be* + gerund) in similar contexts: Spanish (marginally) and spoken Brazilian Portuguese. How is

this use of the progressive related to its other, more central uses? Discussing a number of analyses put forward in the literature, the author proposes - at least for English - to abandon the idea of looking for a "Gesamtbedeutung" of the progressive and to assume instead that it is used in a variety of different, albeit related meanings. This is presented as an alternative to Partee's analysis of the phenomenon in terms of an activity interpretation of those *be* + *adj* predicates which allow the progressive, which was apparently intended to keep the restriction of non-applicability of the progressive to statives intact. I sympathize with König's solution, since it is certainly not possible to cover every language-specific use of a category in terms of a cross-linguistically established "Gesamtbedeutung". Nevertheless, there is a possibility, hinted at by König himself, of reconciling both positions. The two components of "temporariness" and "wilful behavior", which render the ASPECT<sub>2</sub> type of such expressions activity-like, may be explained by the assumption that "in order to restrict a property over a limited period of time... one has to have control over it" (p. 165). Cf. also fn. 5 on the activity-like character of temporary ("stage-level") states.

An interesting phenomenon, found in many languages of the world, is addressed by Ebert: one and the same form is employed to express a perfect and a progressive. Sometimes the form is reported to have the two meanings with one and the same verb (Japanese *hon o yonde iru* '(s)he has read / is reading a book'), sometimes it is claimed to have a perfect interpretation with some verbs and a progressive one with others. The author shows that a satisfactory cross-linguistic interpretation of the facts is hampered by the multiplicity of historical constellations, many of them still underexplored, that lead to this ambiguity in the individual languages. Nevertheless, some generalizable results emerge from Ebert's study. In most cases, the progressive reading is due to a reinterpretation of an erstwhile resultative form, but there are also cases where a general stative form develops both meanings. At any rate, there are interesting correlations between the type of a verb and the interpretation of the common perfect / progressive form as either the one or the other. Moreover, the specific correlations found are not independent of the grammaticalization path forming the historical origin of this ambiguity.

The basic tenet of Gebert's paper is to show that very many imperfective forms in the languages of the world have their historical origin in constructions with basically stative semantics. She takes this as evidence in favor of considering imperfective forms "as a systematic realization of the stative semantic value" (p.91). While I agree on the first point (stative constructions being a frequent historical source of imperfectives), I have serious problems with the second. I am afraid this is just another example

of the illegitimate simplification brought about by a strictly monodimensional approach: the “imperfectives” quoted here are either at a very early stage of grammaticalization - in which case they are probably not imperfectives but genuine inherent states - or they are integrated into the verbal tense system, in which case they belong to the grammatical, secondary, arbitrary (un)bounding devices (ASPECT<sub>1</sub>), which are quite distinct from the situation-inherent properties among which states are counted (ASPECT<sub>2</sub>).

The most obviously “typological” contribution to this volume is Dahl’s. Using the GRAMCATS sample of Bybee et al. (1994), he presents an investigation of areal tendencies in tense-aspect systems. The building blocks of such systems, referred to as “grams”, belong to a limited number of “gram types”, such as a perfective / imperfective opposition, past tenses, future tenses, perfects, progressives, etc. Even though the sample is small (75 languages), it clearly reveals a number of areal tendencies. For example, with respect to the presence of morphology marking the perfective / imperfective opposition, Africa scores highest with 73 %, closely followed by Northern Eurasia with 66 %, while North America is represented only by a few languages (33 %). Dahl points out that only the most global tendencies can be identified in this investigation; nevertheless it sets the stage for the elaboration of “areal profiles” for a number of smaller linguistic areas.

In summary, the papers in this second volume present a more colorful picture of aspectual phenomena and their theoretical interpretations than those of the first one, though the theoretical problems discussed remain largely the same. Most of the contributions are again concerned with the notorious questions of the ASPECT<sub>1</sub> / ASPECT<sub>2</sub> relationship, with a wide range of views taken by the different authors. Any of the possible positions can be attested on the basis of this volume alone: from the one extreme, stressing the strong affinity between imperfectivity and states on the one hand and perfectivity and achievements on the other (Gebert), via attempts to explain the difference between ASPECT<sub>1</sub> and ASPECT<sub>2</sub> in terms of distinct types of boundedness (Smith, Lindstedt), to the other extreme of positing two completely independent conceptual strata (Bache). But it is precisely by virtue of this diversity that the two volumes discussed so far represent a major contribution to our understanding of current problems in research on aspectuality. They constitute an excellent introduction to the field and should be given high priority on the reading lists of all those who want to work their way through the contemporary aspectual landscape.



### 2.3. Bertinetto (1997)

In the preceding sections we have encountered Pier Marco Bertinetto in his capacity as organizer, editor and contributor to the Cortona enterprise. We will now be concerned with his own theory. For many years now, Bertinetto has been explicitly advocating a bidimensional approach to aspect, claiming that a bipartition of the “tempo-aspectual domain” into “Aspect” (*aspetto*) and “Actionality” (*azionalità*, equated with German *Aktionsart*, p. 18) is indispensable. His “Aspect” is a dichotomy roughly corresponding to our ASPECT<sub>1</sub> (the perfective/imperfective type), though it is not necessarily tied to morphological categories in that it can also be a matter of interpretation.<sup>32</sup> It is defined as follows: “Questa nozione esprime la particolare prospettiva, o punto di vista, assunto dal locutore rispetto al evento descritto” (p.16). Several subspects are distinguished within this dichotomy: the “aoristic” aspect and the “completive” (= the traditional “perfectal”) aspect in the realm of perfectivity, and the “progressive”, “continuous”, and “habitual” aspects as subcategories of the imperfective aspect. “Actionality” is a lexical property of verbs or verb phrases (commonly called “predicates” by Bertinetto; see below). It is set up in terms of the four Vendlerian time-schemata, which are reinterpreted as predicate classes. These are in turn decomposed in terms of three binary features (cf. pp.18-19), which results in the following matrix:

predicate class	durative	telic	stative
STATES	+	-	+
Italian examples: <i>possedere, essere malato, comportare</i>			
ACTIVITIES	+	-	-
Italian examples: <i>camminare, piangere, scrivere</i>			
ACCOMPLISHMENTS	+	+	-
Italian examples: <i>digerire, mangiare una mela, risolvere un dilemma</i>			
ACHIEVEMENTS	-	+	-
Italian examples: <i>partire, restituire, nascere</i>			

Table 4: Feature decomposition of Bertinetto’s “actionalities”

The two aspectual subdomains of aspect and actionality are “spesso indebitamente confuse”, though their fusion or formal neutralization is a

<sup>32</sup> Consider, for example, Bertinetto’s threefold aspectual interpretation of *I was very hungry* in the following examples:

- Every morning, at the end of the school, I was very hungry.* (HABITUAL)
- When John arrived home yesterday, I was very hungry.* (PROGRESSIVE)
- Yesterday morning, between 10 and 12, I was very hungry.* (PERFECTIVE)

It was already pointed out (section 1) that such a view, if generalized across a system, is problematic. Interpretation is not the same as overt marking, and there is the danger of confusing different types of “boundedness”. Incidentally, the analysis of this example stands in contradiction to Bertinetto’s usual practice of regarding English simple tenses as perfective.

matter of typological variation (p.8). The confusion is said to be due to the particular structure of Slavic languages, which constituted the most frequently discussed subject of earlier aspect theories. Slavic languages are said to be basically actionality-based (with the exception of Bulgarian and Macedonian, which are known to have both aspect and actionality categories): "I believe that even the basic opposition 'Perfective / Imperfective' [in Slavic] belongs to the domain of actionality rather than aspect proper, although it is intricately interrelated with the latter" (p.28). The system of Slavic languages is said to be a peculiar case, rarely found outside that family (p. 28).<sup>33</sup> In Slavic, aspects are regarded as a "word-formation process which is part of the grammar", or in "Dahl's [1985:89] formulation, the so-called Slavic aspectual pairs may be regarded as grammaticalized lexical categories" (p.49). Thus, according to this view, Slavic (except Bulgarian) has no aspect morphology proper, but exploits its derivational actionality morphology for the marking of grammatical aspect resulting in intertwining aspectual and actional values. The problem is discussed in detail in chapter 2 (pp.48-60). Although the basic idea is appealing and one understands what is meant (cf. Paducheva's paper discussed in section 2.1 for a similar idea), this treatment remains theoretically unsatisfactory unless it is backed up by a theory of lexicon-grammar interaction, which replaces the traditional lexicon vs. grammar opposition and in terms of which notions such as "derivational category which is part of grammar", "grammaticalized lexical category", etc. receive a principled interpretation. It is certainly possible to design a theory of lexicon-grammar which provides a framework for the proper description of the grammatical effects of lexical categories. Unfortunately, such a theory is not developed here. Instead, the perspective is largely syntactic, embellished with certain formal semantic ingredients (hence the term "predicates" and the uncertainty with respect to their status as lexical or syntactic units).

In order to avoid confusion with terms used in Slavicist and other traditions, the author comes up with a new terminological proposal: he suggests replacing the perfective / imperfective terminology with "terminative / non-terminative" and proposes the terms "bounded-unbounded" for the lexical opposition in Slavic (p.30-31), while the terms "telic / atelic" remain for the actionality distinctions. I do not find this particularly helpful and I will retain the traditional terms "perfective" and "imperfective" here for the sake of clarity.

---

<sup>33</sup> This is a fact that has also been noted recently and not so recently by other scholars, though, as Bertinetto himself notes, systems found in Hungarian, and particularly in Baltic (e.g. Lithuanian) and Kartvelian (e.g. Georgian) come close to those found in Russian or Polish.

The basic aim of the book is to demonstrate the status of aspect and actionality as independent semantic variables from various perspectives and in various languages. There are ten chapters (two of them written in collaboration with Denis Delfitto), of which the first four lay out the theory and try to present various types of evidence for the distinction; the following three deal with phenomena of neutralization and interaction, while the final three present contrastive analyses of particular phenomena, mainly between Italian and English.

Next to the Introduction (chapter 1), which presents terms and definitions, one of the most important parts of the book is chapter 2 ("Aspect vs. Actionality"). The author begins by explaining that the chief task of aspects, in contrast to actionalities, which are intrinsic, is "contextual reclassification". For example, *scrivere la tesi* 'write the thesis' is a "lexically telic event". But "telic predicates fulfill their inherent character only in perfective situations. Thus, although *scrivere la tesi* is, from the standpoint of its intrinsic lexical meaning, a telic event, *scrivevo la tesi* ['I was writing the thesis'] depicts, strictly speaking, a detelicized situation, i.e. a situation in which the inherently telic predicate loses its distinctive feature" (p.30). This is the well-known "imperfective paradox": the "actional qualification of telic events [is] viewed imperfectively".<sup>34</sup> Even though this reminds us of the selection theories of aspect, Bertinetto's theory is not intended to be selectional since it does not provide any straightforward matching mechanism between "actionalities" and "aspects".

The hypothesis put forward in chapter 2 is the following: (a) "in a considerable number of cases, the two oppositions ([± telic] as a typical actional discriminator and [± terminative] [= perfective / imperfective, see above] as an aspectual discriminator) behave as two completely independent variables" and (b) this can be demonstrated with temporal adverbials which "enable us to differentiate clearly between Aspect and Actionality" (p.32). This is a new approach, which to my knowledge has not been exploited before (though the behavior of temporal adverbials has notoriously been used to provide tests for assessing aspectual values, see section 1.3.2), and it is therefore worthwhile to look at the results.

To be honest, it is difficult for me to fully appreciate the evidence adduced by the author to prove the difference by means of adverbial co-occurrence restrictions. This is regrettable, since the combinatorics of adverbials may in fact occasionally make this distinction transparent (cf.

---

<sup>34</sup> It is hard to understand why this must be so complicated. Why should the imperfective aspect "detelicize"? Given the bidimensional nature of the approach, one could simply say that *scrivevo la tesi* is telic and imperfective. The "detelicization" hypothesis is misleading.



fn. 23). I therefore believe that Bertinetto is on the right track, though the examples offered here and their discussion do not elucidate this sufficiently. One point that clearly emerges from the discussion is the fundamental difference between Italian (and other Romance languages), on the one hand, and English, on the other, with regard to the role of adverbials. In English, changes in ASPECT<sub>2</sub> values, for example “detelicization” effects, are triggered by adverbials independently of the frequently not overtly marked ASPECT<sub>1</sub> value (as in *Mary painted the wall until midnight*), whereas in Italian “detelicization” is said to be entirely due to the “non-terminative” (= imperfective) aspect, rather than to the adverbial. This is a very important typological difference. However, it is unclear how this may reveal a fundamental distinction between aspects and actionalities in a language like English. The sentence *Mary painted the wall until midnight* is analyzed as “detelicized + terminative (=perfective)”, detelicized by the adverbial, perfective probably on the assumption that simple tenses in English are always perfective. But this is controversial; in an isolated sentence such as this the simple past may just express an aspectually neutral past tense. But even if we assume that the sentence has to be interpreted perfectly, it is likely that this is not effected by an “independent” ASPECT<sub>1</sub> value, but is intimately connected with the pragmatic implications of the adverbial. The adverbial not only “detelicizes”, it also delimits the action with respect to a specific temporal endpoint. It is therefore not at all clear which of the many different types of “boundedness” referred to in the preceding sections is at issue here.

However, the real problem lies in the adverbials themselves. In many cases, language-specific ambiguities and idiosyncrasies make it difficult to compare the behavior of adverbials across languages. Durative time adverbials of the type of English (*for*) *X time* are particularly tricky. According to the author, the imperfect is inappropriate in Italian with the adverbial *per X tempo*. (No information is provided for alternative adverbial constructions.) He concludes that “the actional and aspectual inclinations of “for X time” adverbials are as follows: atelic, terminative” (p.40). However, it is precisely expressions involving this type of adverbial that have served as classic examples to show that in many languages with morphological aspect oppositions, both perfective and imperfective forms can be used in such contexts (cf. section 1.2, fn. 11). Since I do not assume some sort of aspectual metaphor to be at work in all these languages (such as the so-called “narrative imperfect”, which, according to Romance philological tradition, metaphorically reinterprets basically perfective situations as “stretched” ones), I conclude that the “for X time” adverbial is usually not aspectually biased. Moreover, different constructional types of adverbials in basically identical (or overlapping)

semantic classes may behave differently. The following examples from Modern Greek may serve to demonstrate this.

Modern Greek possesses several types of construction for durative time adverbials usually described as more or less synonymous.<sup>35</sup> There are adverbials of temporal duration in the “adverbial accusative” without a preposition such as *tris óres* ‘three hours’. These admit both the aorist and the imperfect with activity predicates:

IMPERFECTIVE: (IMPERFECT) *dhúleva tris óres*

PERFECTIVE: (AORIST) *dhúlepsa tris óres*

‘I worked (for) three hours.’

The semantic effects are the same as described by Comrie (1976:17) for Ancient Greek, French, and other languages: ‘I was working during three hours’ (imperfect) vs. ‘my working, as a single event, lasted three hours’ (aorist).

There is another type of adverbial using the preposition *ja* ‘for’: *ja tris óres* ‘for three hours’. If this is used, the same interpretations are obtained for the aspectual difference as above, though the aorist variant does not sound very good:

IMPERFECTIVE: (IMPERFECT) *dhúleva ja tris óres*

PERFECTIVE: (AORIST) ?*dhúlepsa ja tris óres*

‘I worked for three hours.’

There is a third variant with the preposition *epí*, which places slightly more emphasis on the duration: *epí tris óres* ‘for three hours’ or ‘for the duration of three hours’. The aorist is not compatible with this variant.

In Greek, telic verbs can also be connected with adverbials of temporal duration. The bare “adverbial accusative” can be used with “detelicized” accomplishments in the imperfective verb forms just like activities, but the aorist is not good here. It cannot be used with achievements, though its alleged synonym with the preposition *ja* ‘for’ is quite common with such verbs. However, in this case only the aorist is appropriate and the adverbial refers to the duration of the time span of the resultant state (the so-called “final state”):

*o íljos kríftike* (AOR) (\**krivótan* (IMPF)) *ja dhío óres*  
ART sun hid for two hours

<sup>35</sup> I am indebted to Katerina Stathi for the discussion of these examples.

'The sun clouded over for two hours.' (i.e. after having been covered it remained overcast for two hours)

This is due to a subtle ambiguity in the preposition *ja* when used with temporal expressions ('during X time' vs. 'for the purpose of remaining so for X time'), which seems to be independent of the aspectual characteristics of a sentence (cf. *tis to edhine* (IMPF) *ja dhio ores* 'he usually gave it to her for two hours' (meaning 'he usually let her have it for two hours')).

A number of important points emerge from these examples. (1) Adverbs of temporal duration are not immediately comparable across languages, even if they exhibit similar structures. Differences in semantic nuances and pragmatic implications are to be expected. Thus, the behavior of the Greek adverbials appears to differ considerably from that of their Italian counterpart *per X tempo*, and both differ considerably from English *for X time*. (2) Even within a single language, different types of construction may be associated with different constraints of usage. (3) With telic verbs, durative time adverbials may pertain to the duration of the resultant state after the transgression of the telic endpoint. (4) It does not seem to be cross-linguistically correct that durative time adverbials are perfectly oriented; in Modern Greek some of them have an imperfective bias, while others are compatible with both aspects. (5) Adverbial constructions have their language-specific ambiguities (i.e. may have distinct readings), which have to be taken into account when testing their compatibility with aspect forms or "actionality" types.

The problem of different readings of adverbials is touched upon several times in Bertinetto's discussion. However, he seems to believe that different readings of adverbials usually result from their interaction with aspect and actionality. Though I admit that this might be possible, I do not think the examples adduced provide exceedingly good evidence.

I cannot follow the arguments about the ambiguity of *already* on pp. 41-42, since a perfective reading of *Mary already danced the polka* (*sometimes in the past*) does not make any sense to me. Had it been *Mary already danced the polka* (*at that time in the past*), I would get a habitual reading, but this would not be congruent with Bertinetto's arguments. However, the discussion of Italian *ancora* (p.42) quite clearly reveals two distinct senses, namely 'still' (in the sense of German 'immer noch') and 'once more' (in the sense of German 'noch einmal'), which may be obtained independently of aspectual values, e.g. in all aspectually neutral tenses. Of course, the confrontation of temporal-semantic factors inherent in the different components (aspect/actionality and adverbial) may result



in compatibility restrictions. Thus, it comes as no surprise that only the sense 'once more' is compatible with the perfective past since the 'still' sense requires an ongoing action which is not implied by the semantics of this verb form:

*Maria ballò ancora la polka, prima di andarsene.*  
'Mary danced the polka again / \*still, before leaving.'

To sum up, language-specific peculiarities and ambiguities have to be clarified first before relevant, especially cross-linguistically valid, statements can be made about the interaction of components, for example the interaction between aspectual values and adverbials in morphological aspect languages.<sup>36</sup> Here one is faced with the problem that for most of the languages under discussion, extensive studies of subtle semantic phenomena in the adverbial domain, which are needed as a prerequisite, are simply not available. This makes an enterprise such as the author undertakes extremely difficult. Nevertheless, the interaction and cumulative effects of the three components relevant in morphological aspect languages - inherent temporal structure of predicates, aspect morphology, and adverbials - is a very promising field of study, for which Bertinetto's approach provides fresh input.

The failure of time-schema approaches to recognize the semantic difference between ASPECT<sub>1</sub> and ASPECT<sub>2</sub> is the subject of chapter 3 ("Statives; Progressives, Habituals"). Time-schema approaches are severely criticized for confusing progressivity and habituality, which are "aspectual" values, with stativity, which is an "actional" value. We will briefly comment on Bertinetto's exposition on the progressive-stative distinction (pp. 66-81); a similar exercise is presented for the habitual-stative distinction (pp. 81-92).

The author shows convincingly that progressives and intrinsic states behave differently in a number of respects (the object language is mainly English, but examples from Italian and other Romance languages, using the imperfective verb forms or the "progressive periphrasis" are also given). First, progressives generally admit a punctual temporal localization, while states only rarely do so. Second, states and progressives exhibit different degrees of compatibility with habitual contexts. Third, states are "dense" situations, i.e. situations that cannot be interrupted without causing the cessation of the state referred to, while

---

<sup>36</sup> To be fair, one cannot say that Bertinetto is not aware of the fact that there may be drastic differences between languages with respect to the behavior of adverbials, cf. his discussion of the "da X Tempo" / "depuis X Temps" type of adverbials in Romance and the quite different English construction with perfect + "for X Time".

progressives typically refer to situations that can easily be interrupted. Fourth, stative verbs are “destativized” by means of the progressive in its “temporary” (stage-level-related) reading (as in *John is being silly tonight*).<sup>37</sup> Fifth, progressives are compatible with degree adverbials, while statives are not. Although these (and other) criteria do not lead to a clear-cut differentiation, the contrast between stative verbs and the progressive is certainly a robust one in relative terms. Two explanations are offered for the affinity of states and the progressive: (1) in many languages progressives are grammaticalized from stative constructions; (2) states are [-telic], and progressives have a contextually induced detelicizing effect. Nevertheless, the atelicness of states is inherent, while detelicized progressives retain a dynamic character that is totally precluded for states. I would like to add another possible explanation for the affinity. In my opinion, the detelicization theory of progressives (and imperfectives in general) is misleading, since it rests on the assumption that progressives are prototypically used with accomplishments or achievements. In actual fact their prototypical function is to emphasize the ongoing (unbounded) phase of an activity, and it is the affinity between the different types of “unboundedness” that fosters the relationship between states and progressives<sup>38</sup> - The progressive (or imperfective) / state affinity is also addressed in various articles discussed in sections 2.1 and 2.2 (e.g. Desclès & Guentchéva, Gebert, etc.), with differing conclusions.

Some brief comments on the remaining chapters follow. A semantic definition of the progressive is attempted in chapter 4. The function of the progressive is defined as a “partialization operator” on the event, i.e. as a “device which presents only a portion of the event, rather than the complete event” (p. 104). This is compatible with selection theories, which would state that it is always a  $\phi$ -phase that the progressive selects.

<sup>37</sup> On this construction, cf. the comments on König’s paper in 2.2 above. - As for the restriction of the progressive to temporary states, I do not think that Dowty’s example *John entered the room. The president was sitting as usually at his desk*, quoted on page 77, fn. 14, is a counterexample, showing a permanent progressive of a stative verb. First, verbs of posture exhibit special behavior, often oscillating between states and activities, in very many languages and are thus to be analyzed as a separate class. Second, it seems to me that the different aspectual effects observed here are not correctly interpreted. The progressive is, in the first place, due to the incidental taxis constellation brought about by the conjunction of the two situations {X enter the room} and {Y sit at the desk}. I would therefore insist that the progressive has its normal processual, i.e. ongoing-activity reading here. This is not affected by the adverbial *as usually*, which does not recategorize this particular instance of sitting into being a habit, but acts as an external adverbial adding the separate piece of information {Y usually sit at the desk}. Incidentally, the correct expression in this case would be *as usual* rather than *as usually*, which is even formally a separate predication (elliptical for *as is usual*).

<sup>38</sup> In a selection theory of aspect differences and similarities between progressive and stative verbs would be readily explained by the assumption that progressivity is a semantic nuance (“interaction meaning”) caused by the interaction of  $\phi$ -operators with activity ( $[(\tau)\phi(\tau)]$ ) constellations, while states are interpreted as  $[\phi]$  constellations. Affinities between a  $\phi$ -operator in the ASPECT<sub>1</sub> dimension and a  $[\phi]$  constellation in the ASPECT<sub>2</sub> dimension do not come as a surprise.

However, Bertinetto's treatment is much more complex and will not be summarized here, all the more so since it remains, in the end, inconclusive. I can only repeat that it overestimates the role of progressivity with telic predicates and fails to recognize activities (events with arbitrary temporal bounds) and their specific status in the discourse taxis constellations as the prototypical domain of the progressive (cf. end of section 1 for details).

Chapter 5 deals with neutralizations and reciprocal interactions in temporal-aspectual categories. Neutralizations may be either intrinsic or contextual. Absence of overt markers for a category (such as the lack of aspect markers in German) is regarded as intrinsic neutralization. Interactions are found within and between categories. The conclusion remains rather vague and sounds disappointed: "The inventory of phenomena pointed out is quite variegated: so variegated, in fact, that one might be induced to doubt whether the conceptual tools which are made use of in this domain of semantics are the right ones" (p.133). "The real point is that the categories on which verbal semantics is based, although rather neat in themselves, ... belong to a linguistic component which is characterized by broad typological variation" (p.134). It could be added that the typological variation is reflected in theoretical variation. We will come back to this point in section 3.

Chapter 6 addresses the interesting question of aspectual, temporal, and "actional" metaphors. Examples of aspectual metaphors in Italian are the "narrative imperfect", where textually bounded situations are presented in the imperfective form to stress duration or frequency, or the "presente inattuale", where progressive forms are used to suggest that a certain activity is still ongoing even if interrupted for a while (as in *Let's have another drink! - No, I'm driving.*). Incidentally, a more generous view on aspectual metaphors is usually taken in cognitively-based theories of grammaticalization, where not only the origin of aspect categories (e.g. the creation of the progressive out of a locative construction), but also any kind of spread of such constructions across the entire verbal system is regarded as a metaphorical act (Lakoff 1987, Heine et al. 1991).

Chapter 7 deals with interactions between aspect and "actionality" in the realm of the "continuous periphrasis" (of the type *andare / venire + gerund*). Such interactions are manifest in numerous restrictions on the use and interpretation of this construction.

The final three chapters are devoted to contrastive analyses of specific phenomena, chiefly between Italian and English. - Chapter 8 presents a general confrontation of the tempo-aspectual systems of Italian and



English. The author concludes that there are no major differences in the field of temporal location, but the two languages differ significantly in their treatment of aspect. One might add that there are also drastic differences in the treatment of "actionality" and its repercussions on aspect, an area touched on only marginally in this chapter. - Chapter 9 deals with the expression of habituality in Italian and English. Here, the author comes up with the interesting conclusion that the *used to* construction in English is not a marker of habitual aspect but of something he calls "confinement in the past" (*confinamento nel passato*); it expresses continuous situations at a relatively long distance from the present time (something close to what is expressed by adverbs such as *formerly*). - In chapter 10, the English progressive is compared to the progressive periphrasis in Italian and Spanish.

In summary, it must be said that this is a highly stimulating book, even in view of a number of methodological shortcomings. These mainly reside in its exceedingly strong concentration on morphosyntax and sentence semantics, leaving too little room for subtler considerations regarding lexicon and discourse. Also, some of the issues might have been defended more convincingly if better examples had been chosen. But the strength of the book lies in its offering a wealth of novel ideas and observations, convincing analyses and intuitively appealing interpretations of both English and Italian data, thereby shedding some light on many hitherto neglected facets of aspect semantics.<sup>39</sup>

#### 2.4. Smith (1997)

This monumental monograph is a second, thoroughly revised edition of Smith's already classic 1991 work bearing the same title. Among the principal changes vis-à-vis the earlier edition are the following: in the first (theoretical) part, the theory of situation type shifts and derived situation types has been considerably altered; a fresh look at activities is presented; and the treatment of aspect and temporal location in DRT has been updated. In the second (empirical) part, significant additions and alterations have been made particularly in the analysis of Mandarin and Navajo.

---

<sup>39</sup> As regards outward appearance, the book is impeccably typed and contains very few mistakes. The only odd feature is its strange mixture of English and Italian (chapters 2-5 are in English, chapters 1 and 6-10 in Italian). Especially for those chapters that deal with a contrastive analysis of English (chapters 8-10), an English version would have been highly appreciated. But the author provides good reasons for the bilingual nature of the book (pp.9-10).

Since I am concerned with a general evaluation of aspect theories here, I will not deal with these changes but present a concise overview of the book as a whole in the light of the issues raised in section 1. I will be brief, since the original edition (with which I assume the reader will have a certain familiarity) has already been reviewed elsewhere (cf. e.g. Koktová 1993, Tenny 1993) and I have little to add to the critical remarks made in these reviews.

Smith's approach is a bidimensional one ("two-component theory", Smith *passim*) and thus very similar to Bertinetto's. However, it is far more elaborate and theoretically polished and offers a number of solutions differing from the latter. Her two dimensions are called "situation types" (= Bertinetto's "actionalities"; our ASPECT<sub>2</sub>) and "viewpoint aspect" (= Bertinetto's "aspect", our ASPECT<sub>1</sub>). As in many other approaches, situation types are modelled on the basis of Vendler classes. The classic inventory is extended by one further class of "semelfactives" (such as *tap*, *knock*). This is motivated by their distinct syntactic behavior, which earlier theories of aspect often failed to recognize (p.46). The class system is decomposed in terms of the three features of dynamism (with the values static vs. dynamic), durativity (with the values durative vs. instantaneous), and telicity (with the values telic vs. atelic) (cf. pp.3 and 20). This results in the following matrix:

situation type	durative	telic	static
STATES	+	-	+
English examples: <i>know the answer, love Mary</i>			
ACTIVITIES	+	-	-
English examples: <i>laugh, stroll in the park</i>			
ACCOMPLISHMENTS	+	+	-
English examples: <i>build a house, walk to school, learn Greek</i>			
SEMELFACTIVES	-	-	-
English examples: <i>tap, knock</i>			
ACHIEVEMENTS	-	+	-
English examples: <i>win a race, reach the top</i>			

Table 5: Feature decomposition of Smith's "situation types"

Unlike in Bertinetto's approach, situation types are a feature of what Smith calls the verb configuration, i.e. the abstract propositional skeleton of a sentence consisting of the verb + its arguments<sup>40</sup>. Moreover, Smith's approach contains a theory of "derived situation types" (p.48ff.). These are formed by a "situation type shift", which may be triggered by a variety of factors, e.g. derivational morphemes (such as the Slavic preverbs), verbs

<sup>40</sup> It is not always clear how the examples of complex situation types given in the book relate to this definition. For example, is *in the park* in the activity example *stroll in the park* in table 5 an argument? Or is *stroll in the park* a derived situation type?

or phrases that have the simple sentence as a complement (such as *begin*, *finish*), adverbials, or interpretation (as in habituais, which are regarded as derived states, having the semantic properties of states and the syntactic properties of the events that make them up).

The second dimension, viewpoint aspect, has three values, which are defined as follows: "*Perfective* viewpoints focus a situation in its entirety, including both initial and final endpoints [sic!]; *Imperfective* viewpoints focus part of a situation, including neither initial nor final endpoints; *Neutral* viewpoints are flexible, including the initial endpoint of a situation and at least one internal stage (where applicable)" (p.3). The distinction between perfective and imperfective viewpoints is conveyed by grammatical morphemes; adverbials may give relevant information. By contrast, the neutral viewpoint, which allows a perfective and imperfective interpretation, but with certain severe restrictions (only a specific selection of readings is allowed), is the normal aspectual value of aspect-neutral (so-called LVM ["lacking a viewpoint morpheme"]) sentences. This category is not restricted to aspect-neutral tenses in languages that otherwise have aspect morphology (such as future vs. past in French), but is also meant for all languages lacking "viewpoint morphology" altogether, such as Eskimo, Finnish, German, etc. This brings us back once again to the question of whether the perfectivity / imperfectivity distinction can be inferred exclusively by interpretation, but I will not dwell on this issue any further here. It remains a task for future empirical research to find out whether in fact all "viewpoint-neutral" predicate forms in all languages of the world exhibit exactly the same interpretation characteristics.

Even more clearly than Bertinetto's, Smith's approach is thoroughly syntax-centered: situation types are a matter of the sentence level, defined by some Chomskyan-type "Universal Grammar"; viewpoint categories are likewise sentential; they are part of "Universal Grammar" as well and have a parameterized structure (pp.1-2). One wonders how the classic idea that ASPECT<sub>2</sub> (situation type) properties are to a large extent determined by the organization of the verbal lexicon of a language is accounted for. A detailed treatment of the lexical perspective on aspectuality is not presented in the book. Nevertheless, the relationship between the three compositional steps, the semantics of the lexical building bricks (verbs and nouns), the phrasal situation type, and the sentential one, is accounted for by "compositional rules" (p.54). The verb is the aspectual center of the sentences. It gets an "intrinsic aspectual value" in terms of the features [ $\pm$  telic], etc., based on its aspectual contribution to a "maximally simple sentence" (either intransitive or with



a quantized direct object<sup>41</sup>). The rules then compose the values, taking features such as NP [ $\pm$  count], PP [directional], Adv [ $\pm$  durative], etc. into account, and thus gradually arrive at a composite value for the verb constellation.

In addition, a further important lexical feature of situation types is given attention: their location on a gradual scale of agentivity called "causal chain" (pp.21-22, adopted from Croft 1987, though Smith also invokes Talmy 1985). The part of the causal chain occupied by a certain situation type is called its "lexical span". The following table (adopted from p.22) gives some examples to illustrate this.

CAUSE	SUBJECT	ACTION	INSTRUMENT	OBJECT	RESULT
Activity	-----	laugh	-----		
Semelfactive	-----	knock at the door	-----		
Accomplishment	-----	climb a tree	-----		
Achievement			-----	cure the patient	----
State				-----	know French

Table 6: Prototypical lexical span of situation types

Unfortunately, Smith's treatment of "lexical span" is rather short and leaves many questions unanswered. I must confess that I am unable to interpret it properly, both with respect to the status of the different positions on the "chain", and with respect to the "span" indicated by the dotted lines (for example, what does it mean that *laugh* covers half of the INSTRUMENT position?)

The independence of "viewpoint" and "situation type" is motivated by the following arguments, which partly coincide with and partly differ from those adduced by Bertinetto (p.81ff.): (1) the possible span of a viewpoint may differ from that of a situation type (e.g. imperfectives may focus on part of a temporal schema such as the preliminary phase of an achievement); (2) situation types remain transparent to the receiver whatever the viewpoint of a sentence (e.g. a telic situation type in the imperfective remains telic rather than becoming "detelicized" as Bertinetto would have it); (3) imperfectives are empirically and conceptually different from states; (4) viewpoints may trigger situation type shifts like adverbials.

A detailed discussion of these arguments lies beyond my available space; I will only briefly raise a few questions here. First, arguments (2) and (4)

<sup>41</sup> It is not a priori clear why a transitive sentence with a quantized object should be more "maximally simple" than one with a non-quantized one.

sound to me as if they were in conflict with each other. How is it possible that viewpoints trigger situation type shifts and at the same time leave the situation types intact? Second, one wonders why imperfectives are distinct from states while habituais are considered as (derived) states; Smith explicitly says (pp.50-51) that habituais are syntactically different from states (cf. also Bertinetto 1997:35, who shows that habituais admit terminative adverbials as long as they modify each single occurrence of the event rather than the whole event)<sup>42</sup>. They are also conceptually different, and are treated by different marking devices in many languages. My claim is that habituais differ from states as much conceptually, empirically, and with respect to their “interval” properties as imperfectives do, so that they either belong to the viewpoint dimension as well, or argument (3) is vacuous. Third, concerning argument (1): the difference in time span between viewpoints and situation types is not arbitrary, suggesting total independence. In fact the time span of viewpoints either coincides with or represents part of the time span specified by the situation type, and it is the situation type that determines which parts are typically represented by the viewpoint aspects. This is partly accounted for in the formal analysis of chapter 6 (123ff.), but since the intervals of time, on which viewpoints are located, “are specified without reference to situation type” (p.127), interactive properties such as treated in a selection theory (cf. section 1.5) are played down and thus significant generalizations are potentially overlooked.

As repeatedly pointed out, the best argument for keeping “situation types” and “viewpoints” separate is the specific discourse effects of “viewpoint” aspects, in particular in the realm of activities; my feeling is that this is not given sufficient prominence in Smith’s framework. This is also apparent in her treatment of aspectuality in the DRT framework as outlined in chapter 7 (pp.141-164). In the model proposed here, viewpoint operators are explicitly introduced independently of situation type; they are attached to single simple sentences rather than to discourse units, and it is not intended that they be introduced on the basis of surrounding sentences. For example, the aspectual discourse representation structure of the sentence *Mary was walking to school* is introduced on the spot with the following characteristics:  $I e x y t_{ij}$ . This is to be interpreted as follows:  $e$  is the event represented by the verb constellation  $e = [\text{Mary walk to school}]$  walk ( $x, y$ ), where  $x = \text{Mary}$  and  $y = \text{to school}$ . The event  $e$  is assigned to the accomplishment class ( $e \in \{\text{Accomplishment}\}$ ) on the basis of its syntactic features. The imperfective viewpoint is located at the interval  $[I]$  and includes times after the initial endpoint of  $[e]$  ( $I(e)$ ) and before the final endpoint of  $[e]$  ( $F(e)$ ):  $\{\text{Viewpoint } (I,e) = \text{Imperfective}\}$ ; times  $t_{ij}$  are elements of  $I$  ( $t_{ij} \in$

<sup>42</sup> Of course this has been investigated only for a limited number of languages.

I), where  $t \in I \rightarrow t > I(e), t < F(e)$ . Provided that I do not completely misunderstand the model described in chapter 7, the bounds generated by the interplay of the total amount of predications that make up a coherent and cohesive unit of discourse cannot be calculated into the viewpoint since viewpoint is entered a priori into the discourse representation structure of each sentence. Rather, “taxis” effects are based on the distinction between “closed” and “open”, whose relevance in addition to temporal location (past / present) and / or “viewpoint” (perfective / imperfective) I do not fully understand (p. 63ff.; see also the remarks on English below; is it BOUNDEDNESS<sub>5</sub>?). Thus it seems that the treatment proposed here falls behind the DRT analysis inspired by the works of Caenepeel, Boogaart, and others (cf. sections 1.8 and 2.1), and even behind the functionalist treatment of aspect in discourse.

A central element in Smith’s argumentation is the importance attributed to adverbial tests. This is in accordance with general practice and thus fully appreciated (cf. section 1.3.2). However, some qualifications have to be made. First, the vexed issue of the adverbial’s contribution to aspect compositionality raised earlier (sections 1.3 passim and 2.1) is not clarified here either. On the one hand, sentences are usually taken to be completely qualified aspectually without the adverbial and their verb constellations are then “tested” by the addition of the adverbial. On the other hand, it is assumed that adverbials may change basic situation types into derived ones. It seems to me that this whole area calls for further investigation. Second, the ambiguities raised by the adverbials themselves are not sufficiently taken into account (cf. also section 2.3 on this issue). This leads to clearly counterintuitive interpretations such as, for example, that instantaneous events (*The bomb exploded in an hour*) trigger an ingressive reading of the “in X time” adverbial, pertaining to an interval before the event takes place. However, the “in X time” adverbial is per se ambiguous between the meanings ‘within X time’ and ‘after X time’, and the ambiguity can also be obtained in a single sentence with an accomplishment predicate such as *I promise to build a sandcastle in an hour*.<sup>43</sup>

The second and larger part of the book (chapters 8-12, pp. 165-329) is made up of sample descriptions of the aspectual systems of five languages (English, French, Russian, Mandarin Chinese, and Navajo). On the whole, I think that these chapters are quite useful for conveying an impression of the way the system works; the data presented are comprehensive and, to the extent that I have competence in the languages treated, basically correct. The chapters on Mandarin and Navajo contain some new material

<sup>43</sup> This point has been made repeatedly in the literature, for example in Mourelatos (1978), Mittwoch (1991:73), Tenny (1994:6).



not included in the first edition. Let me just briefly mention one point in the analysis of English to which I cannot get accustomed. Smith presents English as a language where viewpoint is always unambiguously indicated by verbal morphology: simple tenses = perfective, auxiliary = imperfective. There are two tricks that help her in achieving this. One is constituted by her exempting habituality from the viewpoint domain and allocating it on the situation type dimension (see above). This opens the possibility of getting rid of one type of imperfective reading of simple tenses with non-stative situation types, as these are all recategorized as states. It still leaves us with the problem of simple tenses with stative situation types. Here trick two comes into play. In accordance with the morphology, stative sentences are associated throughout with the perfective viewpoint. Smith seems to believe (pp.170-171) that this is compatible with the view that the perfective viewpoint expresses the respective situation type in its entirety, but I cannot help seeing this as a contradiction to her own definition of perfectivity ("including both initial and final endpoints", see above). To explain the different interpretations stative sentences may have (either the state has not ended but continues into the present, or the state has ended), the concept of "open" vs. "closed" is invoked. It is then concluded that the association of openness with imperfectivity and closedness with perfectivity in the other situation types is due to pragmatic inference and does not hold for states. States may be interpreted as "open perfectives" (as in *Sam owned three peach orchards last year, and he still owns them*). This is another point where Smith's analysis of "viewpoint" does not do justice to its discourse characteristics. It seems to me that "openness" does not have anything to do with continuation into the present. One can perfectly say that *The bird was in flight when the arrow hit him* but it would be unreasonable to conclude that he is still in flight. The "incidental taxis" here strongly suggests an imperfective reading on all interpretations of imperfectivity that have so far been proposed. Incidentally, in many languages, states possess imperfective forms only. There seems to be a confusion of several different "boundedness" types here and I would like to stick to the traditional view that simple tenses in English are aspectually underspecified.

Smith provides us with a very comprehensive theory of aspectuality, not comprehensive enough, though, to give satisfactory answers to a number of basic questions that have given rise to debates for many years. The theory concentrates on syntax; both the lexical and the discourse perspective remain underexplored. Some of the solutions fail to persuade me. The theory is not coherent in all of its points, and there are some

contradictions.<sup>44</sup> In addition, the reader is sometimes puzzled by imprecise diction<sup>45</sup> and a large number of typos, which are particularly unpleasant when they distort the data<sup>46</sup>. It is regrettable that the second edition was not taken as an opportunity to emend these flaws, as the opportunity to work the findings of the recent literature into the theory was also passed up. Nevertheless, Smith's "Parameter of Aspect" remains a standard work and a major contribution to modern aspectology.

## 2.5. Hewson & Bubenik (1997)

This book is remarkably idiosyncratic and leaves little room for comparison with those refereed in the preceding sections. Its reading is like a journey in a time machine at least 70 years back in history. There is a distinct French tradition of the viewpoint aspect approach, represented by Gustave Guillaume and his followers (in particular Guillaume 1929 [1965] and 1945 [1965]). This approach was not specifically referred to in section 1.2 since it contributes little to the questions discussed there. It deserves special mention here only because the book under review in this section is to a large extent based on the Guillaumean framework. One of the central notions in this framework is "chronogenesis" ("chronogénèse"). By this Guillaume understands a stratified system of three operational and sequential stages, developing a complex time image and allegedly related to ontogenetic stages. To explicate chronogenesis, the notions of ascending time ("moving-ego", from past to future) and descending time ("moving-world", from future to past), reminiscent of Koschmieders (1929) time psychology (cf. section 1.2), are introduced. The three stages of chronogenesis correspond to different parts of the verbal system. The first stage is the "quasi-nominal mood". It allows only a rough "mental time" orientation. In English, for example, this has three forms: the past participle (*sung*) oriented towards descending time, the infinitive ((*to*) *sing*) oriented towards ascending time, and the present participle as a "representation of an event at the stage of sensory experience" (p.7). Stage two is the development of "universe time"; to this level the evolution of subjunctive forms is attributed. More fine-grained temporal location becomes possible in the third stage of chronogenesis, the development of the indicative.

<sup>44</sup> Some theoretical contradictions have been pointed out above; there are also contradictions in the analysis of data such as, for example, the classification of *break a pot* as an accomplishment on p.27 and of *break a cup* as an achievement on p.31.

<sup>45</sup> For example: "The term 'semelfactive' comes from the Latin *semel* (once), used in Slavic linguistics to refer to a suffix which indicates a single event" (p.29). It is of course not the Latin word *semel*, but the term 'semelfactive' that is used in Slavic linguistics.

<sup>46</sup> E.g. p.8 *čitat* - *pročitat* should be *čitat* - *pročitat*'; on p.48 *y-* appears instead of *u-* (apparently a confusion of Cyrillic and Latin writing); on p. 54 *Tim drew a picture* appears both under *draw* and under *redraw*, etc.

Aspectual distinctions are related, as in Koschmieder's approach, to constellations with respect to ascending and descending time. Many aspectual distinctions become possible here; they are often language-specific and presented in the individual chapters on the basis of the specific formal array of the verbal paradigm of the language(s) under discussion. The definitions given are largely incomprehensible to me, as, for example, that "it is Descending Time, with its orientation towards the beginning of the event that produces the representation that we call Imperfective" (p.8), or that "the Performative aspect [i.e. English simple present or past] ... is the Immanent (i.e. inherent) aspect of all tense representations in Ascending Time" (p.13). Immanent aspect is the term used for overtly unmarked aspect forms that are part of a binary opposition of which the corresponding part carries an aspect marker.

Aktionsart or "lexical aspect" is mentioned as an important parameter interacting with tense and (grammatical) aspect: "[I]t is not restricted to Slavic languages, and indeed is not restricted to the use of preverbs... In all languages every lexical verb, by its very nature as a lexeme, presents a fundamental Aktionsart, and this idiosyncratic element will affect its use in both tense and aspect" (p.17). Interaction of morphological tense / aspect and Aktionsart is extensively discussed throughout the book. Thus, Hewson and Bubenik's approach could be allocated in the group of truly bidimensional approaches were it not for the fact that the confusion of terms and notions makes it difficult at times to understand to what dimension or level the discussion is referring at a given point.

Chapters 2 to 12 present sketches of individual tense-aspect systems of Greek, Old Indic, Armenian, Old Slavic, Albanian, Tocharian, Baltic, Celtic, Latin, Germanic, and Anatolian (Hittite). Each chapter ends with a "sketch of the chronogenetic system" of the respective language. Greek and Old Indic are regarded as languages that have retained the original three-aspect system (present-aorist-perfect, i.e. imperfective, perfective, and perfectal). Armenian, Old Slavic, Albanian, and Tocharian have an innovative perfect, while retaining the present-aorist distinction. Baltic, Celtic, and Latin have a three-tense system; Germanic and Hittite have merged the original aorist and perfect into the preterit. There are six further chapters, which treat later developments: Modern Greek, Modern Indic, Modern Slavic, Modern Iranian, Modern Romance, and Modern Germanic. The 18 chapters differ in quality and substance. Some are quite informative, others less so. This is to a large extent dependent on how heavily they rely on the Guillaumean framework. Fortunately enough, this theory plays a major role in only a few of the chapters. The chapter on Greek is almost indigestible in this respect, while, for example, the one



on Old Indic, which contains little theoretical discussion, does not present anything excitingly new, but is readable.

Apart from the fact that it relies on a completely idiosyncratic paradigm that does not fit into the international discussion, the book has two serious shortcomings.

First, it takes astonishingly little notice of recent developments of aspect research in Indo-European as represented by works such as Strunk (1994) and others, where internal reconstruction of the oldest stages has led to completely new insights with respect to the prehistory of what Hewson and Bubenik call the "original three-aspect system". At the present state of research, it would have been possible to present a much more detailed (and philologically informed) picture of the complex developments that led to the consolidation of secondary, morphologically marked, "present stems" corresponding to "root aorists", and of secondary aorists corresponding to "root presents", thereby creating overtly marked ASPECT<sub>2</sub> distinctions, which in turn developed into the well-known morphological tense-aspect systems of Old Slavic, Greek, Latin, Albanian, etc. This would shed some light on the historical affinity between morphological ASPECT<sub>1</sub> and lexical ASPECT<sub>2</sub> distinctions: telic / punctual verbs becoming perfective forms, frequentative verbs becoming imperfective forms, and the like. Furthermore, it would have been possible to show in detail how such developments occur cyclically, for example in Slavic, where the old morphological aspect system is being abandoned and a new one is on its way to becoming grammaticalized, again by exploiting erstwhile derivational distinctions. If so designed, the book could have been a very useful tool for historical-typological research on tense-aspect systems. Instead, these important issues are touched on in a largely superficial way, buried under a for the most part incomprehensible psychological theory of time, and a very general evolutionary story with heavy glottogonic overtones is told in the concluding chapter (p.351-364). This is very disappointing, especially in view of the fact that the evolution of tense and aspect systems is a hotly disputed issue in the current linguistic scene, and that the study of Indo-European languages has so much to contribute to these questions.

Second, the general sloppiness in the treatment of data and bibliographical information renders the book much less useful as a compendium for the outsider than it could have been. In particular, a long list of incorrect forms and statements could be compiled. It is not possible in the context of this theoretically-oriented review article to say much more about this,

but the reader has to be warned that everything said in this book must be taken with a pinch of salt.<sup>47</sup>

I regret that I cannot follow Dahl in his largely benevolent review (Dahl 2000:187), who comes to the conclusion that “in spite of its somewhat abstruse theoretical trappings, the volume under review may serve as a useful reference book for the older tense-aspect systems of the Indo-European languages”. I cannot recommend this book to anyone of the intended readership: for Indo-Europeanists, it is far from being relevant to the current discussion in this field; for aspectologists, it does not offer any new insights, and for the theoretically interested general linguist, it is not solid enough to serve as a convenient reference manual.

### 3. Conclusion

International research on aspect over the past 50 years or so has shown that the goal of a cross-linguistically adequate theory of aspect should be the investigation of aspectual phenomena on the sentence (or, rather,

<sup>47</sup> As an example, I am giving a few comments on the chapter on Albanian (pp. 103-124), restricting myself to some of the most obvious mistakes: p.103: *zor* ‘force’ (rather than ‘trouble, heaviness’, as given by the authors) is a Turkish loan rather than from \*g<sup>w</sup>ēr-; p.105: *m* must be deleted throughout the paradigm of “ham” ‘eat’, the actual forms being *halhalhal/hamë/hani/hanë*; p.105/6: usually three conjugations are distinguished in the literature rather than the two mentioned by the authors: (1) verb stems ending in vowels and having an *n/j* formative in certain tenses (type *jetoj* ‘I live’), (2) verb stems ending in consonants (type *qep* ‘I sew’), (3) verb stems ending in plain vowels without the *n/j* formative (type *pi* ‘I drink’). The verb ‘eat’ given as an example of the first conjugation is an irregular verb of the third conjugation. P.108 (on the absence of *-sh-* 1 sg aorist): it is true that the most archaic sources point to the forms /rae/ ‘I fell’, /dhae/ ‘I gave’ (rather than “/ae/” as appears in the text), /pae/ ‘I saw’ (vs. Modern Albanian *rashë, dhashë, pashë*), but the *-shë* suffix is not entirely absent in older texts; there are /kleshë/ ‘I was’, /patshë/ ‘I had’, and several others, which constituted a second type very probably serving as a model for the analogical formation of the modern standard forms. Also on p.108, Table VI.6: the optative form *pjek-shit* ‘you (pl.) should bake’ should be corrected to *pjek-shi*. The form *pjekshit* is not entirely incorrect, as there is a dialectal variant of the 2 pl opt. using a suffix *-t* (from the aorist by analogical extension), but since the canonical variant without *t* is displayed throughout all the paradigms, it should also be used here to avoid confusion. P.109: it is very improbable that the aorist is historically derived from the participle; at least no evidence is presented here to corroborate this hypothesis. The parallel of Hindi invoked by the authors is irrelevant as this involves a grammaticalization path via an ergative (or “dative”) construction, for which there is clearly no evidence in Albanian. P.117: the *të* in the “infinitive” (*me të sjellë, për të sjellë* ‘to bring’) is not a preposition ‘near, at, to’, but the preposed neuter article. These expressions are based on the verbal noun, which is the neuter form of the participle (*të sjellë* ‘the bringing’; literally, the above-mentioned “infinitives” mean ‘with the bringing’ and ‘for the bringing’ respectively). By contrast, the “Geg infinitive” is formed with the preposition *me* + the participle without the article, viz. *me sjellë* ‘to bring’. P.119: “In the 2nd conjugation (with root ending in a consonant) the mediopassive suffixes are attached directly to the root which is unlauded”. This is imprecise: the root is unlauded only if umlaut also occurs in the active paradigm (i.e. in a well-defined specific subclass of verbs, cf. *sjell* ‘bring’, 2 pl present active *sill-ni*, mediopassive *sill-em*, but *hap* ‘open’, 2 pl present active *hap-ni*, mediopassive *hap-em*). - Generally, forms from the two main dialects Geg and Tosk occur intermingled and it is not clear which form belongs to which variety; particularly annoying are confusions such as on p.111, where the Geg form *due* is cited as a source for the Tosk future. Little reference is made to evidence from older stages of Albanian, which might possibly alter some of the points made in the conclusion.

clause) level in connection with the investigation of the role of lexicon, conventionalized grammar, and discourse in the constitution of these phenomena. At least seven strands or “aspectual tiers” have to be taken into consideration for a typologically adequate treatment of aspect:

- the inherent tempo-aspectual characteristics of the (simple or complex) situation-denoting lexical units that enter the sentence;
- the tempo-aspectual nuances of meaning brought in by overt morphological systems (“aspect operators” or “aspect grams”);
- the bounding potential of determinational and quantificational characteristics of arguments;
- the bounding potential of adverbials;
- the contribution of other types of phase markers such as *begin*, *continue*, *finish*, *stop*, etc. to bounding;
- the relational structure of the sentence such as diathesis, causativity, thematic roles, etc.;
- interclausal relations between predicates in terms of “axis”.

All of these interact in peculiar, language-specific ways in determining the aspectual values of predications in utterances. Also, the hierarchical relationship between these components may differ considerably between languages. It is the total of these interactions that constitutes the goal of our description. It cannot be expected that interactions are similar or even identical in all languages of the world. As Bybee and Dahl have shown, there is a limited number of coarse aspect “gram types” that cluster areally. But the tokens of these types often behave very differently and are tied into different systems of intersection and intertwinement.

An urgent desideratum is the investigation of the role of the lexicon, in particular the subcategorization of situation types. It has proved that Vendler classes do not suffice. We now know that states are at least of two kinds: non-temporary and temporary. In Breu’s and Sasse’s models an additional class of inceptive-stative verbs is posited. Verbs of posture and motion often constitute separate classes with distinct aspectual behavior. Several authors (e.g. Paducheva 1995, see 2.1 above) have pointed to the importance of a distinction between controlled and non-controlled activities. Bertinetto & Squartini (1995) have established a class of gradual completion verbs, which is distinct from ordinary



accomplishments. Smith adds the important class of semelfactives. The degree of differentiation is a language-specific factor: in my investigation of aspect in Cayuga (Sasse 1997, 2000) it turned out that a much finer-grained distinction had to be made in the field of telic verbs than is usually assumed.

In order to understand the (language-specific or type-specific) mechanisms of interaction, it is necessary to define a number of conceptual primitives in terms of which all kinds of interaction can be described. I take it that the most important of these primitives are the different types of boundedness/unboundedness that we have come across in the course of our considerations in this paper: intrinsic bounds, arbitrary bounds, temporal bounds, bounds established by situations in a text, and perhaps others. At present, it is extremely difficult to distinguish these in the literature, as the term "boundedness" is often used too vaguely to figure out what type of bounds the writer has in mind. Among the further prerequisites of an ideal cross-linguistically applicable aspect theory is the decomposition of holistic categories into smaller, heuristically independent semantic units such as "habitual", "incipient state", etc. The language-specific manifestations of such concepts can be pinned down in fine-grained analyses and the results then compared across languages. I doubt that this could adequately be achieved with holistic concepts such as "perfective" and "imperfective". In other words, it is of little interest, given the present state of our knowledge about aspect systems across the world, to speculate whether "habitual" is to be defined as a "state" (as the English system suggests) or a reading of "the imperfective aspect" (as the Italian system suggests) in universal grammar: once we compare the expression of habituality across languages we will possibly find many further solutions.

It is by now well established that the classic morphological "viewpoint" approach as described in section 1.2 falls short of understanding the complexity of the phenomena involved. Some of this complexity has been tackled in more recent syntactically-oriented theories of aspectuality, but the impression is that the concentration on syntax has, in its turn, led to a neglect of numerous phenomena on the fringe of syntax that had already been taken account of by earlier approaches. The result is that researchers not seldom talk at cross-purposes. One of the reasons for the discrepancy between theories and models of aspect must be sought in the fact that, as in other areas of linguistic research, theories and models are usually made up on the basis of a small number of specimen languages with the result that language-specific characteristics of a few typologically divergent languages are moulded into competing approaches claiming cross-linguistic applicability. As we have seen in section 1, the classic approach

heavily relies on certain Indo-European languages exhibiting a specific type of distinction in their verbal morphology: that between an "imperfect" and a "simple past" or "aorist". In opposition to that, the more recent syntactic and semantic theories heavily depend on structures found in Germanic languages, specifically English. The issue of lexicon-grammar interaction has been brought into the discussion most often by Slavacists. All these correlations between models and object languages come as no surprise, since it is the analytical and descriptive problems of particular languages that determine the design of more general theories.

Many important and valuable contributions to our understanding of aspectuality have been made, both in the theories and individual books treated in this paper and elsewhere. We must now look more deeply into individual languages of different types to see in what way they confirm or modify our picture. Given the complexity of the subject, this is not an easy task. But it will be facilitated by an open-minded research strategy that leaves room for the expectation of a higher amount of variation than suggested by the comparison of Russian, Romance, and English.

## References

- Abraham, Werner (1996). The Aspect-Case Typology Correlation: Perfectivity Triggering Split Ergativity. *Folia Linguistica* 30/1-2 (Special Issue: Aspect and Aktionsart): 5-34.
- Agrell, Sigurd (1908). *Aspektänderung und Aktionsartbildung beim polnischen Zeitworte: ein Beitrag zum Studium der indogermanischen Praeverbia und ihrer Bedeutungsfunktionen*. Lunds Universitets Årsskrift n.s. I, IV.2.
- Bach, Emmon (1981). On Time, Tense, and Aspect: An Essay in English Metaphysics. In Cole, Peter (ed.), *Radical Pragmatics*, 63-81. New York: Academic Press.
- Bach, Emmon (1983). On Time, Tense, and Aspect: An Essay in English Metaphysics. In Bäuerle, Rainer, Christoph Schwarze & Armm von Stechow (eds.), *Meaning, Use and Interpretation*. New York: De Gruyter.
- Bach, Emmon (1986). The Algebra of Events. *Linguistics and Philosophy* 9/1: 5-16.
- Bache, Carl (1985). *Verbal Aspect: a General Theory and its Application to Present-Day English*. Odense: Odense University Press.
- Bache, Carl (1995a). Another Look at the Distinction between Aspect and Action. In: Bertinetto et al. (1995b), 65-78.
- Bache, Carl (1995b). *The Study of Aspect, Tense and Action: Towards a Theory of the Semantics of Grammatical Categories*. Frankfurt / M.: Lang.

- Bache, Carl, Hans Basbøll & Carl-Erik Lindberg (eds.) (1994). *Tense, Aspect and Action. Empirical and Theoretical Contributions to Language Typology*. Berlin/New York: Mouton de Gruyter.
- Bäuerle, Rainer (1994). Zustand - Prozeß - Ereignis. Zur Kategorisierung von Verb(alphras)en. In *Wuppertaler Arbeitspapiere zur Sprachwissenschaft* 10:1-32. Wuppertal: BUGH Wuppertal.
- Behrens, Leila (1998). *Ambiguität und Alternation. Methodologie und Theoriebildung in der Lexikonforschung*. Habilitationsschrift Universität München.
- Bertinetto, Pier Marco (1997). *Il dominio tempo-aspettuale. Demarcazioni, intersezioni, contrasti*. Torino: Rosenberg & Sellier.
- Bertinetto, Pier Marco, Valentina Bianchi, James Higginbotham & Mario Squartini (eds.) (1995a). *Temporal Reference, Aspect and Actionality. Vol. I: Semantic and Syntactic Perspectives*. Torino: Rosenberg & Sellier.
- Bertinetto, Pier Marco, Valentina Bianchi, Östen Dahl & Mario Squartini (eds.) (1995b). *Temporal Reference, Aspect and Actionality. Vol. 2: Typological Perspectives*. Torino: Rosenberg & Sellier.
- Bertinetto, Pier Marco & Mario Squartini (1995). An Attempt at Defining the Class of 'Gradual Completion' Verbs. In Bertinetto et al. (1995a), 11-26.
- Bhat, D.N.S. (1999). *The Prominence of Tense, Aspect and Mood*. (= Studies in Language Companion Series, 49). Amsterdam/Philadelphia: Benjamins.
- Bickel, Balthasar. (1996). *Aspect, Mood, and Time in Belhare. Studies in the semantics-pragmatics interface of a Himalayan language*. Zürich: ASAS-Verlag.
- Bickel, Balthasar. (1997). Aspectual Scope and the Difference Between Logical and Semantic Representation. *Lingua* 102: 115-131.
- Bickel, Balthasar (2000). Unlogischer Aspekt: zur Bedeutungsstruktur von Aspekt und Aktionsart, besonders im Belharischen. In Breu (2000), 1-20.
- Boogaart, Ronnie (1995). Towards a Theory of Discourse Aspectuality. In Bertinetto et al. (1995a), 221-236.
- Breu, Walter (1984). Zur Rolle der Lexik in der Aspektologie. *Die Welt der Slaven* 29:123-148.
- Breu, Walter (1985). Handlungsgrenzen als Grundlage der Verbklassifikation. In: W. Leffeldt (Hrsg.), *Slavistische Linguistik* 1984, 9-34. München: Otto Sagner.
- Breu, Walter (1994). "Interactions Between Lexical, Temporal and Aspectual Meanings". *Studies in Language* 18/1: 23-44.
- Breu, Walter (ed.) (2000). *Probleme der Interaktion von Lexik und Aspekt (ILA)*. Tübingen: Niemeyer.
- Brinton, L.J. (1988). *The Development of English Aspectual Systems*. Cambridge: CUP.



- Bybee, Joan L., Revere Perkins & William Pagliuca (1994). *The Evolution of Grammar. Tense, Aspect and Modality in the Languages of the World*. Chicago/London: The University of Chicago Press.
- Caenepeel, M. (1989). *Aspect, Temporal Ordering and Perspective in Narrative Fiction*. Unpublished PhD thesis, University of Edinburgh.
- Castelnovo, Walter (1991). Temporal Perspectives. *Rivista di Linguistica*, 3/1: 93-106.
- Castelnovo, Walter (1995). *Ora* as a Perspective Adverb. In Bertinetto et al. (1995a), 237-253.
- Comrie, Bernard (1976). *Aspect*. Cambridge: Cambridge University Press.
- Croft, William (1987). Categories and Relations in Syntax: The Clause-Level Organization of Information. PhD dissertation, Stanford University.
- Csató, Éva Ágnes (2000). Zur Phrasenstruktur ungarischer Aktionalphrasen. In Breu (2000), 75-89.
- Dahl, Östen (1985). *Tense and Aspect Systems*. Oxford: Basil Blackwell.
- Dahl, Östen (2000). Review of Hewson & Bubenik (1997). *Kratylos* 45: 184-187.
- Dahl, Östen (ed.) (2000). *Tense and Aspect in the Languages of Europe*. (= Empirical Approaches to Language Typology, 20 / EURO TYP, 6.) Berlin / New York: Mouton de Gruyter.
- Davidson, Donald (1967). The Logical Form of Action Sentences. In Rescher, Nicholas (ed.), *The Logic of Decision and Action*, 81-95. Pittsburgh: Pittsburgh University Press.
- Declerck, Renaat (1979). "Aspect and the Bounded/Unbounded (Telic/Atelic) Distinction". *Linguistics* 17:761-794.
- Declerck, Renaat (1991). *Tense in English: Its Structure and Use in Discourse*. London: Routledge.
- De Groot, Casper (1995). Aspect, Modd, and Tense in Functional Grammar. In Bertinetto et al. (1995b), 29-44.
- Depraetere, Ilse (1995). The Effect of Temporal Adverbials on (A)telicity and (U)nboundedness. In Bertinetto et al. (1995a), 43-53.
- Denz, Adolf 1971. *Die Verbalsyntax des neuarabischen Dialektes von Kwayriš (Irak). Mit einer einleitenden allgemeinen Tempus- und Aspektlehre*. Wiesbaden: Steiner.
- Dik, Simon (1994). Verbal Semantics in Functional Grammar. In Bache et al. (1994), 23-42.
- Dowty, David R. (1977). Toward a Semantic Analysis of Verb Aspect and the English 'Imperfective' Progressive. *Linguistics and Philosophy* 1/1: 45-78.
- Dowty, David R. (1979). *Word Meaning and Montague Grammar: The semantics of verbs and times in Generative Semantics and in Montague's PTQ*. Dordrecht: Reidel.

- Garey, H.B. (1957). Verbal aspect in French. *Language* 33: 91-110.
- Guillaume, Gustave (1929 [Reprint 1965]). *Temps et verbe*. Paris: Champion.
- Guillaume, Gustave (1945 [Reprint 1965]). *Architectonique du temps dans les langues classiques*. Copenhagen: Munksgaard.
- Heine, Bernd, Ulrike Claudi & Friederike Hünemeyer (1991). *Grammaticalization. A Conceptual Framework*. Chicago & London: The University of Chicago Press.
- Hermann, E. (1927). Objektive und subjektive Aktionsart. *Indogermanische Forschungen* 6: 207-228.
- Hermann, E. (1933). Aspekt und Aktionsart. *Nachrichten der Gesellschaft der Wissenschaften zu Göttingen*, Fachgruppe III, nr. 10, 470-480.
- Herweg, Michael (1991). A Critical Examination of Two Classical Approaches to Aspect. *Journal of Semantics* 8: 363-402
- Hewson, John & Vit Bubenik (eds.) (1997). *Tense and Aspect in Indo-European Languages*. Theory, Typology, Diachrony. Amsterdam / Philadelphia: John Benjamins Publishing Company.
- Hinrichs, Erhard (1986). Temporal Anaphora in Discourses of English. *Linguistics and Philosophy* 9:63-82.
- Hopper, Paul J. (1979). Some Observations on the Typology of Focus and Aspect in Narrative Language. *Studies in Language* 3 (1): 37-64.
- Hopper, Paul J. (ed.) (1982). *Tense-Aspect: Between Semantics and Pragmatics*. Amsterdam: Benjamins.
- Holt, J. (1943). *Études d'aspect*. Acta Jutlandica 15.2.
- Jacobsohn, H. (1926). Review of Wackernagel, J., *Vorlesungen über Syntax mit besonderer Berücksichtigung von Griechisch, Lateinisch und Deutsch* (Basel 1920). *Gnomon* 2: 369-395.
- Jakobson, Roman (1957/1971). "Shifters, Verbal Categories, and the Russian Verb". In *Selected Writings II* (1971):130-147. The Hague / Paris: Mouton.
- Jespersen, Otto (1924). *The Philosophy of Grammar*. London: George Allen & Unwin Ltd.
- Johanson, Lars (1971). *Aspekt im Türkischen. Vorstudien zur Beschreibung des türkeitürkischen Aspektsystems*. (= *Studia Turcica Uppsaliensia*, 1.) Uppsala: University Press.
- Johanson, Lars (1996). Terminality operators in European languages. In: Devriendt, B., L. Goossens & J. van der Auwera (eds.), *Complex Structures: A functionalist perspective*, 229-258. Berlin: Mouton de Gruyter.
- Johanson, Lars (2000a). Grenzbezogenheit in Aspekt und Lexik am Beispiel türkischer Postverbialekonstruktionen. In Breu (2000), 129-139.

- Johanson, Lars (2000b). Viewpoint operators in European languages. In: Dahl (2000).
- Kamp, Hans (1981). Evénements, représentation discursive et référence temporelle. *Langages* 64: 39-64.
- Kenny, Anthony (1963). *Action, Emotion and Will*. London: Routledge and Kegan Paul.
- Koktová, E. (1993). Review of Smith (1991). *Prague Bulletin of Mathematical Linguistics* 1993: 134-137.
- König, Christa (1993). *Aspekt im Maa* (= Afrikanistische Monographien 3). Köln: Institut für Afrikanistik.
- Kortmann, Bernd (1991). The Triad 'Tense-Aspekt-Aktionsart'. Problems and possible solutions. In Vetters & Vandeweghe (1991), 9-30.
- Koschmieder, Erwin (1928/29). Studien zum slavischen Verbalaspekt. *Zeitschrift für vergleichende Sprachforschung* 55: 208-304 (part I) and 56: 78-105 (part II).
- Koschmieder, Erwin (1929). *Zeitbezug und Sprache. Ein Beitrag zur Aspekt- und Tempusfrage*. Leipzig/Berlin: Teubner.
- Krifka, M. (1989a). *Nominalreferenz und Zeitkonstitution. Zur Semantik von Massentermen, Pluraltermen und Aspektklassen*. München: Fink.
- Krifka, M. (1989b). Nominalreferenz, Zeitkonstitution, Aspekt, Aktionsart: eine semantische Erklärung ihrer Interaktion. In: Abraham, W. & T.Janssen (eds.), *Tempus - Aspekt - Modus*, 227-259. Tübingen: Niemeyer.
- Lakoff, George (1987). *Women, Fire, and Dangerous Things. What Categories Reveal about the Mind*. Chicago & London: The University of Chicago Press.
- Langacker, Ronald (1987). *Foundations of Cognitive Grammar*. Vol. I: Theoretical Prerequisites. Stanford: Stanford University Press.
- Langacker, Ronald (1991). *Foundations of Cognitive Grammar*. Vol. II: Descriptive Application. Stanford: Stanford University Press.
- Lascarides, A. (1992). Knowledge, Causality and Temporal Interpretation. *Linguistics* 30: 941-973.
- Leech, Geoffrey (1971). *Meaning and the English Verb*. London: Longmans.
- Lyons, John (1977). *Semantics*. Vol.2. Cambridge: Cambridge University Press.
- Maslov, J.S. (1988). Resultative, Perfect, and Aspect. In Nedjalkov, V.P. (ed.), *Typology of Resultative Constructions*, 63-85. Amsterdam/Philadelphia: Benjamins.
- Mittwoch, Anita (1988). Aspects of English Aspect: On the Interaction of Perfect, Progressive, and Durative Phrases. *Linguistics and Philosophy* 11: 203-254.
- Mittwoch, Anita (1991). In Defense of Vendler's Achievements. In Vetters & Vandeweghe (1991), 71-85.
- Moens, Marc (1987). *Tense, Aspect and Temporal Reference*. PhD Thesis, Centre for Cognitive Studies, University of Edinburgh.



- Moens, Marc & M. Steedman (1988). Temporal Ontology and Temporal Reference. *Computational Linguistics* 14:15-28.
- Moscato, Sabatino (ed.) (1964). *An Introduction to the Comparative Grammar of the Semitic Languages*. Wiesbaden: Harrassowitz.
- Mourelatos, Alex (1978). Events, Processes and States. *Linguistics and Philosophy* 2:415-434.
- Mourelatos, Alex (1981). Events, Processes, and States. In Tedeschi, Philip & Annie Zaenen (eds.), *Tense and Aspect* (Syntax and Semantics, Vol 14), 191-212. New York, etc.: Academic Press.
- Paducheva, Elena V. (1995). Taxonomic Categories and Semantics of Aspectual Opposition. In Bertinetto et al (1995a), 71-89.
- Partee, Barbara Hall (1984). Nominal and Temporal Anaphora. *Linguistics and Philosophy* 7: 243-286.
- Payne, Doris L. (1992). Narrative Discontinuity and Continuity in Yagua. *Discourse Processes* 15/3: 375-394.
- Pedersen, Holger (1901). Vorschlag. *Indogermanische Forschungen* 12:152-153.
- Pollak, Wolfgang (1988). *Studien zum Verbalaspekt. Mit besonderer Berücksichtigung des Französischen*. Bern, etc.: Peter Lang.
- Porzig, W. (1927). Zur Aktionsart indogermanischer Präsensbildungen. *Indogermanische Forschungen* 45: 152-167.
- Reinhart, T. 1984. Principles of Gestalt Perception in the Temporal Organization of Narrative Texts. *Linguistics* 22:779-809.
- Rundgren, Frithiof (1959). *Intensiv und Aspektkorrelation. Studien zur äthiopischen und akkadischen Verbalstambildung*. Uppsala: Ab Lundequistska Bokhandeln.
- Rundgren, Frithiof (1961). *Abriß der Aspektlehre*. Stockholm, etc.: Almqvist & Wiksell.
- Ryle, Gilbert (1949). *The Concept of Mind*. London: Hutchinson.
- Sanfilippo, Antonio (1991). Thematic and Aspectual Information in Verb Semantics. In Vettters & Vandeweghe (1991), 87-114.
- Sanfilippo, Antonio (1995). Thematic Affectedness and Aspect Compositionality. In Bertinetto et al. (1995a), 179-193.
- Sasse, Hans-Jürgen (ed.) (1991a): *Aspektsysteme*. Arbeitspapier Nr.14 NF. Köln: Institut für Sprachwissenschaft.
- Sasse, Hans-Jürgen (1991b). Aspect and Aktionsart: a reconciliation. In Vettters & Vandeweghe (1991), 31-45.

- Sasse, Hans-Jürgen (1997). *Aspektsemantik und Lexikonorganisation: Beobachtungen zu Cayuga (Nordirokesisch)*. Arbeitspapier Nr. 28 NF. Köln: Institut für Sprachwissenschaft.
- Sasse, Hans-Jürgen (2000). Aspektsemantik und Lexikonorganisation im Cayuga. In Breu (2000), 193-246.
- Smith, Carlota (1991). *The Parameter of Aspect* (first edition). Dordrecht: Kluwer Academic.
- Smith, Carlota (1997). *The Parameter of Aspect* (second edition). Dordrecht: Kluwer Academic.
- Strunk, Klaus (1994). Relative Chronology and Indo-European Verb-System: The Case of Present- and Aorist-Stems. *The Journal of Indo-European Studies* 22/3-4: 417-434.
- Talmy, Leonard (1985). Lexicalization Patterns: Semantic Structure in Lexical Forms. In Shopen, Timothy (ed.), *Language Typology and Syntactic Description, Vol. 3*. Cambridge: Cambridge University Press.
- Tenny, Carol L. (1989). The Aspectual Interface Hypothesis. In Ivan Sag & Anna Szabolcsi (eds.), *Lexical Matters*. Stanford: Center for the Study of Language and Information.
- Tenny, Carol L. (1993). Review of Smith (1991). *Studies in Language* 17/2: 486-492.
- Tenny, Carol L. (1994). *Aspectual Roles and the Syntax-Semantics Interface*. Dordrecht, etc.: Kluwer Academic Publishers.
- Thelin, N.B. (1990a). Verbal Aspect in Discourse: On the State of the Art. In Thelin, N.B. (1990b), 3-88.
- Thelin, N.B. (ed.) (1990b). *Verbal Aspect in Discourse*. (= Pragmatics and Beyond 5.) Amsterdam / Philadelphia: Benjamins.
- Thelin, N.B. (1991). "Aspect, Tense or Taxis? - The Perfect Meaning Reconsidered". In: Grochowski, M. & D. Weiss (eds.), "Words are physicians for an ailing mind" [For Andrzej Bogustawski on the occasion of his 60th birthday]. 421-431. München: Sagner.
- Timberlake, Alan (1985). The Temporal Schemata of Russian Predicates". In Flier, M.S. & R.D. Brecht (eds.), *Issues in Russian Morphosyntax*, 35-57. Columbus, OH: Slavica Publishers.
- Tyloch, W. (1978). La catégorie de l'aspect en sémitique. Un essai de reconsidération. In: Fronzaroli, Pelio (ed.), *Atti del secondo congresso internazionale di linguistica camito-semitica, Firenze, 16-19 aprile 1974* (= Quaderni di semitistica, 5), 269-274. Firenze: Istituto di Linguistica e di Lingue Orientali.
- Vendler, Zeno (1967). *Linguistics in Philosophy*. Ithaca, N.Y.: Cornell University Press.
- Verkuyl, Henk J. (1972). *On the Compositional Nature of the Aspects*. Dordrecht: Reidel.

- Verkuyl, Henk J. (1993). *A Theory of Aspectuality*. The Interaction Between Temporal and Atemporal Structure. Cambridge, etc.: Cambridge University Press.
- Vet, Co (1995). The Role of Aktionsart in the Interpretation of Temporal Relations in Discourse. In Bertinetto et al. (1995a), 295-306.
- Vetters, Carl & Willy Vandeweghe (eds.) (1991). *Perspectives on Aspect and Aktionsart* (= Belgian Journal of Linguistics 6). Brüssel: Editions de l'Université de Bruxelles.
- Vlach, Frank (1981). The Semantics of the Progressive. In Tedeschi, Philip & Annie Zaenen (eds.), *Tense and Aspect* (Syntax and Semantics, Vol 14), 271-292. New York, etc.: Academic Press.
- Zaenen, A. 1993. Unaccusativity in Dutch: Integrating Syntax and Lexical Semantics. In Pustejovsky, James, *Semantics and the Lexicon*. Dordrecht: Kluwer.



Von 1968 an erschienen die von Prof. Dr. Hansjakob Seiler herausgegebenen Arbeitspapiere des Instituts für Sprachwissenschaft. Nach der Emeritierung von Prof. Dr. Seiler im März 1986 wurde eine neue Folge mit neuer Zählung und dem Zusatz "Neue Folge" (N. F.) begonnen. Herausgeber ist Prof. Dr. Hans-Jürgen Sasse, Institut für Sprachwissenschaft.

#### Arbeitspapiere Köln (Liste noch vorrätiger Arbeitspapiere)

3. SEILER, H. & SCHEFFCYK, A. 1969. Die Sprechsituation in Linguistik und Kommunikationswissenschaft. Referat einer Diskussion.
5. BRETTSCHEIDER, G. 1969. Das Aufstellen einer morphophonemischen Kartei (illustriert an der Morphophonemik des japanischen Verbs).
6. PENCEV, J. 1969. Einige semantische Besonderheiten der bulgarischen Geschmacksadjektive.
14. ROSENKRANZ, B. 1970. Georg von der Gabelentz und die Junggrammatische Schule.
18. SEILER, H. 1971. Possessivität und Universalien. Zwei Vorträge gehalten im Dezember 1971: I. Zum Problem der Possessivität im Cahuilla (Uto-Aztekisch, Südkalifornien) II. Possessivität und Universalien.
23. BRETTSCHEIDER, G. & LEHMANN, Ch. 1974. Der Schlagwortkatalog des Instituts für Sprachwissenschaft der Universität Köln.
24. WIESEMANN, U. 1974. Time Distinctions in Kaingang.
26. SEILER, H. u.a. 1975. Deskriptive und etikettierende Benennung; Relativkonstruktionen, (Becker, Katz, Walter, Habel, Schwendy, Kirsch, Clasen, Seip).
29. VAN DEN BOOM, H. & SAMUELSORFF, P. 1976. "Aspects"-Kommentar. Protokolle eines Seminars aus dem WS 1975/76.
36. STEPHANY, U. 1978. The Modality Constituent - A Neglected Area in the Study of First Language Acquisition.
37. LEHMANN, Ch. 1980. Guidelines for Interlinear Morphemic Translation. A proposal for a standardization.
40. PAUL, W. 1982. Die Koverben im Chinesischen (with an English summary).
41. SCHLÖGEL, S. 1983. Zum Passiv im Türkischen.
42. BREIDBACH, W. 1983. Zur Possession im Samoanischen.
43. STEPHANY, U. 1983. The development of modality in language acquisition.
44. SEILER, H. Die Indianersprachen Nordamerikas. Ausarbeitung der Vorlesung SS 1980.
45. KUKUČKA, E. 1984. Lokalrelationen und Postpositionen im Tamil.
49. PREMPEL, W. 1986. Kollektion im Arabischen.
50. FACHNER, R. 1986. Der Relativsatz im Bambara.
51. PUSTET, R. 1986. Zur Frage der Universalität des "Subjekts": Das Ayacucho-Quechua.
52. REICHERT, Ch. 1986. Verteilung und Leistung der Personalaffixe im Ungarischen.

#### Neue Folge (Die fettgedruckten Nummern der Arbeitspapiere sind vorrätig.)

1. HOFMANN, Gudrun 1986. Zum Verständnis epistemischer Modalausdrücke des Deutschen im Kindergartenalter.
2. BREIDBACH, Winfried 1986. Die Verben mit der Bedeutung 'weggehen' im Althochdeutschen.
3. HASPELMATH, Martin 1987. Verbal nouns or verbal adjectives? The case of the Latin gerundive and gerund.
4. MOSEL, Ulrike 1987. Inhalt und Aufbau deskriptiver Grammatiken (How to write a grammar)
5. HASPELMATH, Martin 1987. Transitivity alternations of the anticausative type.
6. BREIDBACH, Winfried 1988. Die Schiffsbezeichnungen des Alt- und Mittelhochdeutschen. Ein onomasiologisches und etymologisches Glossar.
7. HAASE, Martin 1988. Der baskische Relativsatz auf dem Kontinuum der Nominalisierung.
8. THOMADAKI, Evangelia 1988. Neugriechische Wortbildung.
9. SASSE, Hans-Jürgen 1988. Der irokesische Sprachtyp.

10. HAASE, Martin 1989. Komposition und Derivation: Ein Kontinuum der Grammatikalisierung.
11. BAUMANN, Monika 1989. Die Integration englischer Lehnwörter in die samoanische Sprache. Das Verhalten der englischen Konsonantenphoneme.
12. SASSE, Hans-Jürgen 1990. Theory of Language Death; Language Decay and Contact-Induced Change: Similarities and Differences.
13. SCHULTZE-BERNDT, Eva 1991. Phonetische Substanz und phonologische Theorie. Eine Fallstudie zum Erstspracherwerb des Deutschen.
14. SASSE, Hans-Jürgen (Hg.) 1991. Aspektsysteme.
15. HIMMELMANN, Nikolaus P. 1991. The Philippine Challenge to Universal Grammar.
16. HIMMELMANN, Nikolaus P. 1992. Grammar and Grammaticalization.
17. COMPES, Isabel & KUTSCHER, Silvia & RUDORF, Carmen 1993. Pfade der Grammatikalisierung: Ein systematisierter Überblick.
18. COMPES, Isabel & OTTO, Barbara 1994. Nicht-morphologische Nominalinkorporation - etwas ganz anderes?
19. DROSSARD, Werner 1994. The Systematization of Tagalog Morphosyntax.
20. ÁGEL, Vilmos 1994. Valenzrealisierung, Grammatik und Valenz.
21. KEUSEN, Anna 1994. Analysis of a Cayuga Particle: *ne:* ' as a Focus Marker.
22. STEPHANY, Ursula 1995. The Acquisition of Greek.
23. SASSE, Hans-Jürgen 1995. A Preliminary Bibliography on Focus.
24. KUTSCHER, Silvia & MATTISSSEN, Johanna & WODARG, Anke (Hrsg.) 1995. Das Mutafi-Lazische.
25. GARCÍA CID, Aranzazu 1995. Parenthesen, Einschübe und Kommentare: Zur Klassifikation von Nebenprädikationen in gesprochenen spanischen Texten.
26. JOSWIG, Andreas 1996. Die grammatischen Rollen des Objekts im Swahili.
27. SASSE, Hans-Jürgen 1996. Theticity.
28. SASSE, Hans-Jürgen 1997. Aspektsemantik und Lexikonorganisation: Beobachtungen zum Cayuga (Nordirokesisch)
29. COMPES, Isabel 1997. Die *ona-lea* Konstruktion im Samoanischen. Eine Untersuchung zur Struktur narrativer Texte.
30. BEHRENS, Leila & SASSE, Hans-Jürgen 1997. Lexical Typology: A programmatic Sketch.
31. KOLMER, Agnes 1998. Pluralität im Tagalog.
32. EVANS, Nicholas & WILKINS, David 1998. The knowing ear: An Australian test of universal claims about the semantic structure of sensory verbs and their extension into the domain of cognition.
33. ANGERMEYER, Philipp Sebastian 1999. Multilingual Discourse in the Family. An analysis of conversations in a German-French-English-speaking family in Canada.
34. KOLMER, Agnes 1999. Zur MASS/COUNT-Distinktion im Bairischen: Artikel und Quantifizierung.
35. BEHRENS, Leila & SASSE, Hans-Jürgen 1999. Qualities, Objects, Sorts, and Other Treasures: GOLD-digging in English and Arabic.
36. SEIFART, Frank 2000. Grundfragen bei der Dokumentation bedrohter Sprachen.
37. BEHRENS, Leila 2000. Typological Parameters of Genericity.
38. LEHMANN, Katrin 2000. Zeit im Baskischen.
39. KLANN, Juliane 2001. Agrammatismus im Deutschen - eine linguistische Fallstudie.
40. SASSE, Hans-Jürgen 2001. Recent Activity in the Theory of Aspect: Accomplishments, Achievements, or just Nonprogressiv State?

