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Tense, aspect and syntax:
A review of Giorgi & Piansesi (1997)

Abstract

This review is devoted to the bulk of Giorgi & Piansesi's (1997) proposal for the (morpho-)syntax and semantics of tense and aspect, presented in chapters 1-4 of their book. The authors investigate the cross-linguistic variation in the semantics of various tense forms (Present, Imperfect, Present Perfect), and claim that it can be directly linked to their morphosyntactic properties, expressed in terms of an explicit theory of functional features and projections.

In our critical discussion we contend that: (a) The treatment of aspect is deficient (in particular, we criticize the unified analysis of the different usages of the Italian Present Perfect); (b) The treatment of actionality — i.e. Aktionsart — phenomena is occasionally misconceived; (c) The syntactic treatment of the “P-Definiteness constraint” (Klein 1992) presents some technical problems.

On these grounds, we put forward two more general remarks. The first one concerns the assumption that there is a strict correspondence between the morphological exponence of specific inflectional features and tense-aspect semantics. We believe instead that the three levels of semantics, syntax, and morphology must be assumed to be partially independent, although related in a non-arbitrary way. Secondly, we suggest that G&P failed to take into account the discourse function of tenses. Although a formal syntactic analysis of tense and aspect is obviously relevant, tense and aspect are intrinsically ‘interface phenomena’, where the syntactic configurations yielded by the computational system crucially interact with the independent constraints of other external systems.

1. *Introduction*¹

The formal study of temporal-aspectual phenomena has now become one of the recurring topics of generative syntax. Within this flourishing stream of research, the book by Alessandra Giorgi and Fabio Piansesi (published by Oxford University Press) represents a very influential work, which deserves careful scrutiny by those interested in the matter.² This is what we intend to do in this paper. The degree of detail of the analysis presented below bears full witness to our own interest. Thus, although our review contains a number of critical remarks, we would like to express at the very outset our praise for G&P's achievement. Their work is unique among generative approaches to tense and aspect in that it offers a broad comparative perspective on these phenomena; furthermore, it couples detailed syntactic

analysis with formal semantic analysis. As for differences of opinion, they are, of course, inevitable in any fairly new area of research.

It should be noted that, due to the rich array of topics dealt with in the book, we had to be selective. We decided to focus on the material in chapters 2-4, which present a coherent set of facts, laid out with the aim of formalizing the very core of tense and aspect semantics. Chapter 2 presents G&P's analysis of the mapping of temporal structures into morphosyntactic structures in the indicative paradigms of three sample languages; chapter 3 analyzes the "Present Perfect"³ from a comparative Germanic/Romance perspective; chapter 4 is devoted to the analysis of the Present and the Imperfect. We are not going to discuss the last two chapters, partly because they appear to be less problematic from our point of view, but also because they are at least partially independent of the theoretical apparatus developed in the first four chapters. In particular, chapter 5 is devoted to the semantics and morphosyntax of the subjunctive, about which the authors advance very interesting proposals; chapter 6 outlines an original approach to so-called "Double Accessibility Reading", which the authors have developed more fully in subsequent work (Giorgi & Pianesi 2000).

One undisputable strength of G&P's work consists of the radicalness and explicitness of their theoretical position. Radical conceptions provide us with detailed hypotheses about relevant aspects of language that, rightly or wrongly, force us to rethink our own views on the subject. As to explicitness, it has the advantage of suggesting an obvious way to deal with the proposed claims, namely the search for direct falsification. Needless to say, the inability to find a convincing falsification does not prove the correctness of a given claim, but the burden of proof rests with the opponent. It is also fair to say, though, that G&P's model, however explicit, is fairly intricate, for it exploits the technical tools of the minimalist framework to the extreme. On top of that, it should be noted that at times (particularly in chapters 3 and 4) one cannot rid oneself of the impression that the reader's task has been made unnecessarily complicated by a somewhat less than perfect integration of the two authors' contributions.⁴

1.1. Theoretical premises

Before discussing the core of G&P's proposal, it is worth briefly reviewing their theoretical premises. These are concisely and very clearly presented in the introductory First chapter. The syntactic framework is basically Chomsky's (1995), with a crucial commitment to the checking theory, about which G&P offer a valuable theoretical discussion (pp. 9-11). Within this framework, inflectional features are taken to correspond to functional heads which project phrases according to the general X-bar format. G&P raise the important question of whether the functional architecture of the clause is universally given,⁵ and if not, how the relevant

cross-linguistic variation may be accounted for in a principled way. Their proposal is original and definitely worth testing well beyond the empirical domain of tense and aspect systems. In their view, what is universal is an inventory of functional features which are ranked in a fixed hierarchy, such that a higher ranked feature cannot be checked later than a lower ranked feature in the derivation (Universal Ordering Constraint, p.14); each language may exploit a subset of this universal inventory.⁶ Contiguous segments of the feature hierarchy may be projected as a single syncretic functional head; alternatively, each feature can head its own projection (Feature Scattering Principle, p. 15). The scattering option is constrained by economy: it is only allowed when each feature must license a distinct phrase merged in its Specifier. Additionally, a given language may have hybrid functional heads, in which the value of one feature entails the value of the other feature (see § 3.1 for more details). According to G&P, cross- and intra- linguistic variation of the clausal architecture may be entirely reduced to the application of the Feature Scattering Principle and to the existence of hybrid categories in the lexicon of a language. This is in line with the general minimalist inspiration present in their work.

On the semantic level, G&P adopt a referential approach to tense phenomena, as opposed to the operators-approach typical of the semantic tradition initiated by Prior, and offer a concise but very persuasive discussion in support of it (pp. 17-26).⁷ Two points of their revised reichenbachian framework are worth emphasizing here. Firstly, developing suggestions originally put forth by Comrie (1981) and Hornstein (1990), G&P argue that S and E never enter into a direct relation; they require the intermediation of R.⁸ Thus, the temporal structure of a verbal form consists of the two relations between S/R and R/E (p.27); these are syntactically projected in two distinct Tense heads, named T1 and T2 respectively. Secondly, verbal heads have a "davidsonian" event argument position (cf. Higginbotham 1985, Parsons 1990 among many others), which receives the T-roles assigned by the Tense heads according to the following "T-criterion":

(1)T-criterion: every T-role must be uniquely assigned to an event position, and every event position can receive at most one T-role. (p. 29)

The T-criterion is clearly analogous to the Theta-criterion of the pre-minimalist framework, but with one important difference. The Theta-criterion establishes a strictly biunique relation between the thematic roles assigned by a lexical head and the arguments licensed by that head. G&P's T-criterion, on the other hand, requires every T-role to be uniquely assigned, but allows for an event position that does not receive a T-role. This asymmetry is required by their analysis of the Italian Present and Compound Past (cf. § 2.1

and 3.1), but it is fair to note that it has no independent theoretical or empirical justification. See § 2.1, as well, for further critical remarks on the nature of T-roles.

1.2. *The "morphological bet".*

G&P's main tenet consists of what we would like to call the "morphological bet". This requires assuming a strict mapping between reichenbachian temporal structures, syntactic projections, and morphological structure. The morphological bet is best exemplified by G&P's analysis of the Italian Present Tense. This has a temporal structure in which E coincides with R, and R with S. G&P make the radical assumption that the coincidence relation is not syntactically encoded in any Tense head, and correspondingly, there are no morphemes to lexicalise it; it is simply assigned as a default interpretation at LF (pp. 40-41). The authors provide morphosyntactic evidence to support their view of the Present as an "unspecified" tense: from a morphological point of view, it is often an unmarked form; syntactically, in languages like Latin or Russian, the present tense differs from other tenses in that it needs not be overtly expressed by the copula in copular sentences. Thus, G&P endorse a very rigid conception of semantic-syntax-morphology mapping. Before proceeding to examine their empirical results, we wish to comment on this issue from a general conceptual point of view.

The "morphological bet" rests on a conceptually plausible basic assumption: whatever happens in syntax must be reflected in the morphological marking of the given language, and vice versa. This is, of course, a sound assumption in itself, one that should only reluctantly be abandoned. Indeed, the recent minimalist development has heavily stressed the relevance of the interplay of morphology and syntax. Nevertheless, the specific domain that concerns us here — temporal-aspectual phenomena — should elicit some caution, for it is often the case, interlinguistically, that the very same morphological device expresses different meanings within the same language; and it also happens, although less frequently, that the very same meaning is attained by different tools within the same language. As a straightforward example, consider the Present tense, which in most languages may be employed in both perfective and imperfective contexts, and with any temporal reference (past, present and future), possibly depending on the type of predicate (see § 4.1 for more discussion). As to the alternative situation (one meaning, two devices), we shall provide an example below.

Actually, after a moment's reflection we realize that this is the inevitable consequence of the nature of temporal-aspectual phenomena. There is no doubt that any language needs to cope with at least the following facts:

- (i) past, present and future temporal reference;

- (ii) relative localization of the events with respect to one another (simultaneity, anteriority, posteriority);
- (iii) perfective and imperfective views (i.e. global-external vs. partial-internal perspective on the event).

This may seem to be an obvious property of the relationship between language and reality. But different languages exhibit different strategies for coping with these facts. For instance, relative localization may be partly absent among the capabilities of a specific temporal-aspectual system; just think of Russian, where there is no Pluperfect, Future Perfect or Future-in-the-Past. The corresponding tasks may be, and often are, accomplished by means of other devices, such as temporal adverbs; and of course such a reduction of the tense-system has profound consequences on the treatment of sequence of tenses phenomena (as indeed is the case in Russian, cf. Comrie 1986). As to points (i) and (iii), however, things are more complicated. It is true that, apparently, there are languages where no tense exists, hence no temporal-aspectual distinction may be morphologically expressed (Dahl 2001). However, this does not necessarily imply that the given language cannot express temporal-aspectual distinctions. An alternative view may be that in these languages temporal and aspectual values are not morphologically marked and must be inferred from the context. This might seem like an extreme assumption, but there are strong reasons to entertain it, considering that phenomena of neutralization among tenses occur very frequently (recall the example of the Present given above, and see Bertinetto 1997, ch. 3, for a systematic illustration based on Italian). This may sometimes be due to diachronic development, as in the case of the French Compound Past, which in the spoken language has acquired all the aspectual possibilities of the Simple Past, while preserving its most important original aspectual properties. Why languages often reduce (or perhaps never develop) their morphological capabilities in this domain, is not easy to assess, but it seems to be a widely attested fact. Of course, we are not claiming that any language may convey any aspectual value, while disregarding its morphological implementation. That claim would obviously be much too extreme, and we would not endorse it. For instance, not all languages may express the habitual aspect; and indeed this appears to be a case where explicit morphological marking seems to be necessary. But as to the basic temporal and aspectual values listed in (i) and (iii) above, it hardly seems possible for languages to be completely devoid of expressive power in this regard, even when no explicit marking is available. This leads to the inevitable conclusion that morphological neutralizations, as evidenced by competing contextual interpretations, are endemic to this particular domain.

Be that as it may, it is a fact that even within the generative syntactic framework there are scholars who admit possible discrepancies between semantics and morphology. For instance, Embick (2000) observes that the Latin synthetic and analytic 'Perfect' (the latter attached to

'deponent' verbs, presenting active meaning but passive morphology), are functionally equivalent, despite their macroscopic structural difference. This provides a nice example of the "one meaning, two devices" syndrome, alluded to above. The same author, as a matter of fact, is also aware of the ambivalent character of the Latin 'Perfect', which (as traditionally assumed) conflates the aspectual values of two previous Indoeuropean tenses, the Aorist and the Perfect; something ostensibly not unlike the French case mentioned above. This is indeed a frequent phenomenon (Squartini & Bertinetto 2000), but it is worth mentioning here because, according to G&P, the Latin 'Perfect' has but one semantic value. This obviously follows from their morphological bet (cf § 2.2). Yet, even for them things may vary: the Romance Imperfect, for instance, is considered to be aspectually neutral. And although the latter claim stems from some dubious assumptions (see section 4 below), it is again worth mentioning, because it shows that semantic ambiguity creeps into G&P's model now and then.⁹

It is clear that G&P's morphological bet represents a general hypothesis on the semantics-syntax-morphology mapping, with far-reaching consequences. Therefore, we need to examine the empirical basis that the authors found their study on. Should it turn out that some of their claims are inaccurate, serious doubts would be cast on the basic tenet of their analysis. In the following section we will critically examine their analysis of the temporal systems of three sample languages: Italian, Latin, and Portuguese.

2. On G&P's analysis of the Italian, Latin, and Portuguese temporal systems

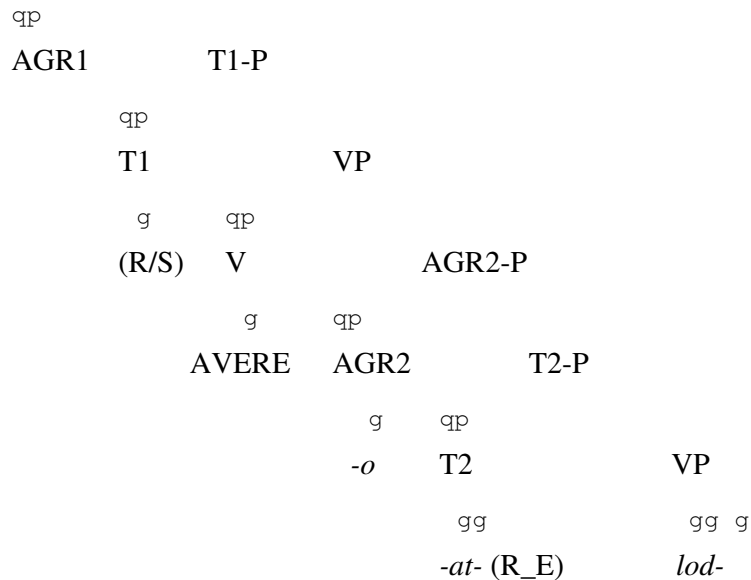
2.1. Italian and Latin.

As mentioned above, G&P propose two Tense projections, T1 and T2, which express, respectively, the relations between S/R and R/E. These heads are only realized when they express a temporal relation that is different from coincidence: e.g. T2 is projected in tenses that convey the notion of 'perfect' (E_R) or of 'prospective' (R_E); T1 is projected in past tenses (R_S) and in future tenses (S_R). When the temporal points coincide, no Tense head is projected; the coincidence interpretation is assigned by default at LF.

In Italian, the two tenses featuring a full-fledged functional structure are the Past Anterior (traditionally called "Trapassato Remoto") and the Future Perfect, corresponding to the structure in (2b) (from G&P, p. 43):

- (2)a. ebbi / avrò lodato
 I-had-SP / I-will-have praised

(2)b. AGR1-P



By hypothesis, T2 is an adjectival category [+V, +N] and can only combine with the adjectival agreement head AGR2, which contains number and gender but crucially not the verbal feature of person. The auxiliary VP morphologically supports both T1 and AGR1, which are incompatible with the adjectival participial form; additionally, it introduces an event position which receives the T-role assigned by T1, in compliance with the T-criterion.

The other Italian tenses differ in the number of the projections demanded by the semantics. The following prospect summarizes the essential data, with *lodare* 'praise' as an example:

PRESENT (*lodo*) = only AGR1 shows up, for the affix is interpreted by G&P as referring to agreement features, to the exclusion of temporal ones. This however is not to be understood in the sense that the Present is open to any temporal reading: the lack of Tense heads implies the default coincidence interpretation E,R and R,S (cf. § 2.1).¹⁰

COMPOUND PAST (*ho lodato*) = the Perfect Participle projects T2 and AGR2; the auxiliary in the Present tense involves only AGR1; T1 is not realized because S and R coincide.

SIMPLE PAST (*lodai*) and SIMPLE FUTURE (*loderò*) = only T1 (R_S) and AGR1 emerge.

ABSOLUTE (PERFECT) PARTICIPLE (as in: *lodati i suoi sforzi, lo premiò* 'having praised his efforts, s/he gave him a prize') = only T2 and AGR2 are projected.

G&P do not provide an explicit representation for the Imperfect (*lodavo*) at this point: this leads the reader to infer that this tense involves the same structure as the Simple Past, the difference being purely aspectual. However, this is unfortunate, because this important notion

— namely aspect — receives no explicit treatment in terms of this sort of “compositional” semantics-syntax-morphology mapping (although the problem of the imperfective aspect is addressed from a formal semantic perspective in chapter 4). We shall return to this (see § 4.3). A somewhat similar situation occurs with the Pluperfect (*avevo lodato*), which evidently must have the same structure as the Past Anterior. The authors do not take a position as to the aspectual difference between Past Anterior and Pluperfect (see Bertinetto 1986, § 8.3).

There might be a problem concerning the status of E in non-compound tenses. Recall that, in G&P's framework, the relation between E and S is necessarily mediated by R, whereby the relations S/R and R/E are projected by heads T1 and T2, respectively. However, in non-compound tenses T2 is not projected. Here, the most plausible interpretation is that R is interpreted (presumably by default at LF) as overlapping with E. Note that this is in agreement with the original reichenbachian model, where R had the double status of: either (a) ‘E-localizer’ (with the English simple tenses) or (b) ‘vantage point’ wherefrom E is evaluated (with perfect or prospective tenses). Actually, to avoid ambiguity, some scholars (e.g., Bertinetto 1986 and Stowell 1996) adopt the solution of splitting — even at the terminological level — the reichenbachian R into the two distinct notions of E-localizer and R proper (i.e., E-vantage-point). According to this conception, the relation R/E should be restricted to perfect and prospective tenses, while in the remaining tenses the relevant relation takes place between E and its localizer. G&P do not adopt this view, but their solution is equally consistent. They report convincing (in fact, well-known) arguments to the effect that perfect and prospective tenses are not deictically oriented; thus, they do not involve any relation between E and S. As to the remaining tenses, the latter relation may, in their view, be dispensed with altogether, on the assumption that the respective position of E and S can be inferred through the overlapping of E and R, possibly yielded (if our interpretation is correct) by the default E-localizing function of R at LF. Nevertheless, although things ultimately work, it is somewhat puzzling that E receives no stable projection, considering that this is a basic component in tense and aspect semantics. In fact, even assuming that the event argument (thus, ultimately, E) is realised by the VP projection of the lexical verb, note that it is assigned a T-role by either T1 (in the Simple Past and Simple Future) or T2 (in the Compound Past and Compound Future), or by no head at all (in the Simple Present). These assumptions leave the nature of the event arguments unclear, and lead one to suspect that the assigned T-roles do not directly encode the S/R and R/E relations that the Tense heads are taken to express.¹¹ In our opinion, this point deserves a more explicit discussion than G&P have offered.

Chapter 2 also presents a treatment of the Latin temporal system. In G&P's view, the crucial difference w.r.t. Italian is that perfect T2 is a verbal category, rather than an adjectival one, and it is therefore compatible with the higher verbal heads, T1 and AGR1. This

essentially accounts for the lack of analytic perfect forms. (As noted above, G&P do not even mention the problem of deponent verbs, whose 'Perfect' resembles very much, from the morphological point of view, the Italian Compound Past and the English Present Perfect: cf., e.g., *secutus sum* 'I followed', lit. 'followed am').

The main features of the Latin temporal system may be summarized as follows:

PRESENT (*laudo*) = only AGR1, as in Italian.

IMPERFECT (*laudabam*) = AGR1 and past T1, as in the Italian Simple Past.

'PERFECT' (*laudavi*) = *-i* projects AGR1 and *-av-* projects perfect T2; T1 is not projected, as in the Italian Compound Past. Contrary to Italian, T2 is compatible with AGR1, and AGR2 is not required.

PLUPERFECT (*laudaveram*) and Future Perfect (*laudavero*) = *-am* and *-o* project AGR1, *-av-* projects perfect T2, and *-er-* is an incorporated auxiliary which receives the T-role assigned by T1, as in the Italian Past Anterior and Future Perfect.¹²

PRESENT / PAST / FUTURE PROSPECTIVE (*laudaturus sum / eram / ero*) = all projections are present (except for T1 in the Present); in particular, T2 (associated to the Prospective Participle) is required by the need to convey the prospective relation R_E; prospective T2 is an adjectival category and requires the projection of adjectival AGR2, whereas the higher heads incorporate to the auxiliary, as in the Italian compound forms. The temporal relation R/S is expressed by the tense of the auxiliary (except in the Present, where the auxiliary only supports AGR1).

The treatment of prospective tenses hides two serious problems. First, the prospective relation R_E is required by the Future-in-the-Past: what happens in the languages where this tense is expressed by a simple form, as in Spanish or (in most cases) French? Presumably, G&P would claim that in, say, *je mangerais* ('I would eat) T2 is projected by something like *-r-*; but given the compositional method they adopt, this would imply either that the Simple Conditional always entails the prospective T2, in all of its readings, or that this tense receives an ambiguous interpretation, corresponding to its temporal vs. modal reading, quite independently of the morphological structure, which is obviously the same in both cases. Note also that languages may present different devices for this function, both synchronically and diachronically. For instance, in pre-contemporary Italian the Simple and Compound Conditional could often alternate within the very same text, and in contemporary spoken Italian the Compound Conditional is generally replaced by the Imperfect. This, then, is another example of the "multiple device, one meaning" syndrome, definitely orthogonal to a purely compositional approach (see Squartini 1999 for a convincing interpretation of the different behaviour of Italian, as compared to French and the Iberic languages, in the morphological implementation of the Future-in-the-Past).

The second problem is even more serious. What structural analysis could possibly be assigned to a prospective form with an auxiliary in the 'Perfect' tense? In G&P's analysis, T2 would have to occur twice: once in the projection of the (perfect) auxiliary, once in that of the (prospective) participle. This problem cannot be ignored, because in Latin the form *laudaturus fui* (Prospective Participle + AUX-'Perfect') does exist. Marco Maiocco (p.c.) has kindly provided four undisputable (i.e., with no counterindications in the apparatus) occurrences of this structure in a single Classical Latin text, the *Epistulae Herodiam* by Ovidius. In the same text one even finds a form like *peccatura fuissem* (Prospective Participle of *pecco* 'sin' +AUX-Subjunctive-Pluperfect).¹³ Thus, there is no doubt that forms of this sort do occur in Latin, and this might indeed prove quite troublesome for the theoretical construction set up by G&P. To see why, consider the following drawing:

(3) T2 of the Aux. / T2 of the Prosp.Part.
 E_____R_____E

Recall that G&P take T2 to convey the two alternative meanings listed above: the relation E_R with the perfect aspect, the relation R_E with prospective tenses. Once they are combined together, as in the Latin forms discussed here, a hybrid structure results that poses serious problems of interpretation, namely a double-E structure. The only way out of this paradox consists of drastically relaxing the rigid morphological compositionality on which G&P's model rests. A direct consequence would be that the tenses of the auxiliary cannot have the same sort of projections as independent tenses.

2.2. A digression on the 'Perfect'

As we have seen, G&P equally analyse the Latin 'Perfect' and the Italian Compound Past as unambiguous perfect forms. The possibility of a perfect value for the Italian Compound Past, as opposed to the Simple Past, is convincingly demonstrated in chapter 3 (pp. 87-90). However, none of the evidence offered by G&P conclusively shows that this is the only possible value of this form. Inspection of actual usage shows that this tense is aspectually ambiguous: it may appear both in contexts implying perfect reading and in contexts demanding a purely perfective reading (Bertinetto 1986). Obviously, both readings belong in the perfective domain, as shown by the thorough implementation of the telic character of achievements and accomplishments; however, in the former case there is, in addition, the 'Consequent State' meaning triggered by the completion of the event.

It is commonly assumed that these two readings are distinguished by their compatibility with different types of adverbs:

- (5)a. Marco è uscito da dieci minuti.
'Marco (has) left ten minutes ago'.
- b. Marco è uscito dieci minuti prima
'Marco (has) left ten minutes before'.
- c. * Marco uscì da dieci minuti
'Marco left ten minutes ago'.
- d. Marco uscì dieci minuti prima
'Marco left ten minutes before'.

Adverbials like *da dieci minuti* lit. 'since ten minutes' invariably require the perfect meaning; in fact, they may also occur with the Pluperfect or the Future Perfect, with the appropriate temporal interpretation. In (5a), the adverbial measures the distance between the end of the event and the R point which coincides with S; in (5c) the adverbial is ruled out because the Simple Past does not express a perfect meaning. On the other hand, adverbs like *dieci minuti prima* 'ten minutes before' are only compatible with the purely perfective reading (cf. Bertinetto & Bianchi 1996 for discussion), and measure the distance between the (end of) the event and some contextually relevant point in the past. Crucially, this adverbial is compatible not only with the Simple Past in (5d), but also with the Compound Past in (5b), suggesting that in this particular case the latter has a purely perfective reading.

In chapter 3, G&P reject this straightforward interpretation of the facts and claim that the adverbial in (5b) is compatible with the unambiguous perfect reading that they assign to the Italian Compound Past. In section 3 below, we will argue that this aspect of their analysis is seriously flawed. Here, we offer an argument unrelated to the E-localization problem to the effect that the Compound Past can have a purely perfective reading.

As discussed by Klein (2000, 370-371) or Portner (2000) (borrowing from McCawley 1971), the English Present Perfect, unlike the Simple Past or the Past Perfect, gives rise to 'lifetime effects'. For instance, (6a) is infelicitous if the speaker and hearer know that Einstein is dead at S:¹⁴

- (6)a. ! Einstein has visited Princeton.
- b. Einstein visited Princeton.

Interestingly, (6a) is rescued if *Einstein* is focused:

(7)EINSTEIN has visited Princeton.

This seems to suggest that the so-called 'lifetime effect' does not pertain to the syntactic subject per se, but rather to the theme of information structure, which in (7) is Princeton (as a target of people's visits). Whatever the ultimate explanation of this phenomenon is, this is specific to the Present Perfect, and does not arise with any other tense. Note now that if the Italian Compound Past were an intrinsically present perfect form, we would expect it to pattern with (6a) rather than with (6b). However, this prediction is incorrect: (8) is a perfectly natural sentence, parallel to (6b), even in a context where Einstein is known to be dead.

(8)Einstein ha visitato Princeton.

This shows that the Italian Compound Past is an aspectually ambiguous form, as are its equivalents in French, Spanish, Catalan, Romanian, German, Dutch etc., although the actual array of meanings expressed by each of these tenses is not strictly coextensive, as shown by Squartini & Bertinetto (2000; and see also Boogart 1999 on the difference between German and Dutch). The same applies, of course, to the Latin 'Perfect', as recognized by a venerable tradition.

The actual reason why G&P do not accept the ambiguity of the Compound Past is easily understood: it runs against their morphological bet, i.e. their strictly compositional assumptions. Yet, when one's theoretical options, however plausible and intriguing, conflict with the empirical data, they need to be relaxed. Unfortunately, this incorrect interpretation of the Perfect forms affects not only the analysis of the temporal systems in chapter 2, but also the approach to the "Present Perfect Puzzle" in chapter 3 (see section 3 below).

2.3. *Portuguese*

Chapter 2 also contains a discussion of the Portuguese temporal system. According to G&P, this system presents clear analogies to the Latin one: in particular, the Simple Past has the same structure as the Latin 'Perfect', with AGR1 compatible with T2, and no projection of T1 and AGR2. Essentially, G&P claim that the Portuguese Simple Past is a true Present Perfect, the same claim they advance for its Latin ancestor, while the Portuguese Compound Past allegedly conveys a habitual meaning, as opposed to its Italian cognate, which allegedly conveys only a perfectal meaning.

This characterization of the data is incorrect. It is undisputable that the Portuguese Simple Past may convey, in the appropriate contexts, the meaning of a Present Perfect, a feature that sets it apart from the purely perfective nature of its morphological cognates in

most Romance varieties (with the notable exception of some Southern Italian vernaculars; cf. again Squartini & Bertinetto 2000). For instance, as noted by G&P, it may co-occur with the adverb *agora* as in (9a), as opposed to the Italian version given in (9b), and in addition it may admit future-time-reference as in (10a), again in contrast with Italian:

(9)a. *Agora ja comi o suficiente.*

b. * *Ora mangiai abbastanza.*

Now I-eat-SP enough

'I have eaten enough, now'.

(10) a. *Outro exame mais e terminaste o curso.*

b. *Un altro esame ancora e *terminasti / hai terminato il corso.*

One more exam and you-SG-finish-SP / you-have finished the course

'One more exam and you are done with your studies'.

However, (9) only shows that the Portuguese Simple Past is compatible with Present Perfect meaning; it does not prove that this tense invariably behaves in this way. Indeed, the Portuguese Simple Past is the only suitable translation in most cases where the English Simple Past appears. As to (10a), it should be noted that future-time-reference is also admitted by the English Simple Past when embedded under a future tense, as in (11) (cf. Abusch (1998) for discussion of this future-shifting effect). By contrast, (10b) shows that in Italian — as in most Romance languages — the Simple Past is never used in this sense:

(11) We shall only evaluate the papers that were received before the deadline.

The only conclusion that one can draw from this is that the English Simple Past is more flexible in usage than most of its Romance cognates, possibly as a consequence of its partly ambiguous aspectual nature (Bertinetto, 2001). As to the Portuguese Simple Past, the reason why it extends its usage to future-time-reference contexts stems from the mere absence of competitors, considering that the Portuguese Compound Past has dramatically reduced its semantic possibilities.¹⁵ Indeed, as shown by Squartini (1998) and Squartini & Bertinetto (2000), this tense only covers the meaning of the 'inclusive' Present Perfect, i.e. the cases where the E designated by the predicate embraces R (thus, necessarily S). It is, in other words, an inherently hybrid tense from the aspectual point of view, since it exhibits perfectal morphology (most often employed with perfective meaning) on the one hand, and an 'open' (namely imperfective) perspective on the other hand. Indeed, from (12) no inference can be drawn as to the fact that the situation referred to is concluded at S:

- (12) Tenho estudado imenso desde que decidi fazer o exame.
I-have studied intensely since I-decide-SP to take the exam
'I have been studying a lot since I decided to take the exam'.

It will not go unnoticed that even the English translation, by means of the Present Perfect Progressive, presents obvious vestiges of an aspectually hybrid morphology, as its very denomination reveals. It is important to note this, because we do not want to convey the idea that morphological substance plays no role in tense and aspect semantics. The point we would like to make is simply that the relation between semantics and morphology is not one-to-one; the two systems are to a large extent independent, i.e. they evolved from different sets of constraints, and entertain a fairly articulated mutual relationship.

As to the claim repeatedly put forth by G&P that the Portuguese Compound Past conveys habitual meaning, this is only partially true, but it would be unfair to list this among the factual inaccuracies, because Portuguese grammars are themselves very confusing in this respect. This is actually a consequence of the inclusive meaning of this tense: since E must embrace R (with the latter coinciding with S), it follows that whenever the event is non-durative and/or telic, the only way to rescue the interpretation is by construing an iterative reading.¹⁶ For reasons of space, we refer the reader to Squartini (1998) and Squartini & Bertinetto (2000) for the relevant illustration of this point.

3. *The Present Perfect Puzzle.*

3.1. *Delimiting the puzzle.*

As noted in the previous section, G&P are led by their theoretical options to a number of questionable statements concerning the aspectual interpretation of some of the tenses discussed in chapter 2. This has inevitable consequences on the discussion in chapter 3, devoted to the analysis of the Present Perfect.

G&P propose that languages present a major parametric variation with respect to verbal morphology, sharply dividing into two groups, called A and B. Group A is exemplified by English and Mainland Scandinavian, where the verbal morphology may either express agreement (like *-s* of the English Present) or tense meaning (like *-ed* of the English Past), but never both at the same time: the specification for the AGR feature [*+/-* 3rd person] implies the unmarked value of the temporal feature, [*-past*]. G&P argue that this implication is due to the projection of a hybrid head AGR1/T1, in which the specification of the value of one feature affects the value of the other. Group B is instead exemplified by the remaining Germanic and

Romance languages, where agreement and tense morphemes may separately coexist, as in the Italian Imperfect *lod-av-o*, corresponding to scattered AGR and T1 heads. Needless to say, verbal morphology offers a much wider range of possibilities, typologically speaking, so that the observed difference appears to be far from dramatic. Nevertheless, G&P propose that this apparently minor divergence triggers important consequences precisely with respect to the Present Perfect interpretation. Namely, group A languages do not allow a definite temporal localization of the event (see 13a), unless a temporal indefinite reading obtains (as in 13b); group B languages, on the other hand, admit the definite localization of the event (cf. the French sentence in 13c):

- (13) a. * Yesterday, at five o' clock, I have gone home.
b. For quite a long time, I have gone home at five o' clock every day.
c. Hier, à cinq heures, je suis allé à la maison.

This datum raises the following problem for G&P's model. Since, in their purely compositional approach, the Compound Past of the Romance languages (except Portuguese) are taken to be true instances of the semantics of the Present Perfect, they need to find a way to deal with the fact that (13c) is grammatical, as opposed to (13a). The solution they propose is fairly intricate, but at least the following seems to be clear. First, recall that the relevant tenses of group A languages present the hybrid head AGR1/T1; this head contains a τ -feature which attributes a definite interpretation to R, namely: $R = S$. Contrariwise, in group B languages the auxiliary of the Compound Past has no T1 projection (see § 2.1 above): thus, the interpretation of R remains indefinite as to its localization with respect to S; the relation of these two points (assigned by default) is claimed to be $S \subseteq R$. As a second step, G&P assume that the Consequent State introduced by the Present Perfect, as an immediate consequence of the completion of the event, is subject to the following constraint (adapted from Klein 1992): "A consequent state cannot be definite" (p.113; in other words, it cannot be the case that both its boundaries are definite). This accounts for the data in (13): the English sentence (13a) is ungrammatical because, given the definite interpretation $R = S$ which provides the right boundary of the Consequent State, the left boundary cannot be fixed as well by a definite localizing adverbial; on the other hand, in the French sentence (13c) the left boundary can be fixed, since R is not precisely localized.

We agree with the authors that this solution is "simply a stipulation" (p. 114). In the next subsection we discuss G&P's attempt at deriving the effects of this principle from syntactic constraints. However, we would like to stress that all this ingenious construction would not have been necessary, had G&P realized that there is no Present Perfect puzzle after all. Indeed, the puzzle vanishes as soon as one realizes that the grammaticality of (13c) is merely

due to the fact that, in such contexts, only tenses compatible with a purely perfective reading may appear. Now, the French or Italian Compound Past allows such a reading, as opposed to the English Present Perfect (cf. § 2.2 above). As to the reason why the Present Perfect — and for that matter all perfect tenses in their 'strong' aspectual reading — do not allow for the localization of E, this remains a poorly understood fact. All the proposals known to us are either purely descriptive (e.g. Klein 1992) or weak (Bianchi et al. 1995). Thus, no criticism should be levelled against G&P for their unsatisfactory solution to the problem, except for the fact that they definitely complicate an already fairly intricate matter, by unduly equating the aspectual value of the Compound Past of languages such as Italian, French, Spanish etc. with the aspectual value of the English and Mainland Scandinavian Present Perfect.¹⁷

Whatever the case, it is useful to look for more data to explicitly counteract G&P's claim. One fairly direct way to falsify their proposal is to look for 'group B' languages with rich verbal morphology whose Compound Past has the same behaviour as that of group A languages.¹⁸ Finnish is a case in point, as the following translation of (13a) shows:

- (13) * Eilen, kello viisi, (mä) olen mennyt kotiin.
'Yesterday, at five, (I) have gone home'.

In this language, as in English, the Simple Past *menin* should be used. Yet, *men-i-n* has group B properties, for it exhibits both tense(-i-) and agreement (-n) morphology.¹⁹ Hence, G&P's morphological bet turns out, once again, to be inaccurate, and once again with far-reaching consequences.

3.2. *The syntactic account of the Present Perfect Puzzle*

The ban against the definite localization of both boundaries of the Consequent State has been proposed by Klein (1992) as a pragmatic constraint. G&P aim at deriving it from independent syntactic constraints (pp. 101-118). Their proposal runs through the following steps:

1. Localizing temporal adverbials are arguments of the verb, receiving a temporal theta-role.
2. According to Diesing's (1992) Mapping Hypothesis, definite temporal adverbials, like other definite arguments, must occur outside VP at LF; otherwise, they are mapped into the nuclear scope and a deviant interpretation obtains.
3. Under minimalist assumptions, the movement of the definite adverbials must be triggered by feature checking. G&P postulate a non-interpretable T-DEF feature which can be

realised in two functional heads: T1 and the newly introduced D/P (Determiner/Preposition), the highest head of the past participial structure proposed by Kayne (1993).²⁰

(15) AGR/T1 AUX D/P T2 V

4. In the English Present Perfect, AGR/T1 obligatorily bears a T-DEF feature (which checks the implicit definite R-argument, identified with S).
5. Although the D/P head optionally bears a T-DEF feature, it overtly incorporates to the auxiliary à la Kayne (1993), and ultimately to the AGR/T1 head which contains another T-DEF feature. According to G&P, this yields a checking configuration in which both non-interpretable features are erased.
6. Consequently, if a definite E-temporal argument has been generated in the VP, it cannot raise out of VP to check a T-DEF feature, thus violating the Mapping Hypothesis at the interface.
7. In the Italian Compound Past, T1 is not present, hence only D/P bears an (optional) T-DEF feature: this attracts the definite E-argument out of VP at LF, complying with the Mapping Hypothesis.

Each of these steps deserves careful discussion. We defer the discussion of the status of temporal adverbials to the next subsection; here, let us consider the T-DEF checking mechanism.

First, note that the proposed implementation of Diesing's Mapping Hypothesis rests on the crucial assumption that definite phrases cannot move out of VP by Quantifier Raising. This is in line with the general rejection of QR in the minimalist framework (see Hornstein 1995, 153-182, but also Chomsky 1995, 377 for a different view). But while other authors (notably Hornstein 1994, 1995) try to derive the effects of Quantifier Raising from independent syntactic mechanisms like Case checking, G&P replace it with an *ad hoc* feature checking mechanism. This seems to be a dangerous move, for it implies that all definite arguments have to be raised out of VP by specially devised DEF features, and it is not clear which functional heads may accomplish this checking. As for direct objects, this may be parasitic on Accusative Case checking, but other landing sites will have to be postulated for prepositional arguments (including presumably those PP which were traditionally considered modifiers: cf. note 47, chapter 3).

Secondly, their analysis totally depends on the arbitrary collocation of the T-DEF features in T1 and in D/P. The latter assumption is particularly puzzling, since one would expect the lower T-DEF feature to be located in T2. But if the T-DEF feature could be generated in T2,

the whole mechanism would break down: T2 does not incorporate to the auxiliary, and hence the lower T-DEF feature would not be checked against the higher T-DEF feature of AGR/T1 in English, but rather would remain available to check a definite E-argument.

Thirdly, G&P argue that in Italian a definite E-temporal argument is invariably checked by the D/P head. This runs against Kayne's (1993, 19) proposal that in Italian, unaccusative structures featuring the auxiliary *essere* 'to be' do not contain D/P. In note 69, chapter 3, G&P acknowledge this inconsistency and assume that in Italian unaccusative structures D/P is realised but incorporates covertly to the auxiliary, whereas in transitive and unergative structures it incorporates overtly, giving rise to the auxiliary form *avere* 'have'. Though this move is technically viable, it is an *ad hoc* stipulation, leading one to suspect that G&P are only borrowing the name of D/P with no actual commitment to the empirical justification that Kayne provides for this functional head.²¹

G&P extend their analysis of the Present Perfect Puzzle to a related phenomenon, namely the incompatibility of a definite R-adverbial (*giovedì*) and a definite E-adverbial (*mercoledì*) within the very same clause:

- (16) * *Giovedì, Maria era partita mercoledì.*
'(On) Thursday, Mary had left (on) Wednesday'.

Here the R-adverbial is attracted to the Spec of a high Topic projection, so that it complies with the Mapping Hypothesis at LF; if the E-adverbial could check the T-DEF feature of D/P, the sentence would be incorrectly ruled in. In order to exclude it, G&P postulate that the auxiliary incorporating D/P raises covertly to the Top head, where its T-DEF feature is checked in a Spec/head configuration against the R-adverbial; consequently, the E-adverbial cannot be covertly raised out of VP at LF. However, there is no independent evidence in Italian that the auxiliary ever raises to the Top head (cf. Frascarelli 1997a, 264), and it remains unclear what would trigger this movement. Secondly, and more importantly, this line of reasoning predicts that a sentence like (16) would be possible if the E-argument, too, were topicalized out of VP. (As is well known, Italian has no ban against multiple topicalization: cf. Rizzi 1997). But this prediction is incorrect:

- (17) a. * *Giovedì, mercoledì Maria era partita.*
b. * *Mercoledì, giovedì Maria era partita.*

G&P argue that the structure in (16) can be rescued if some other independent factor triggers the LF movement of the E-argument out of VP. They suggest that the adverb *già* 'already' can covertly attract the E-argument, yielding an acceptable structure:

- (18) Giovedì, Mario aveva già telefonato a Maria mercoledì (e lo avrebbe rifatto venerdì).
'(On) Thursday, M. ha already phoned Mary (on) Wednesday (and he would do it again on Friday).'

However, for us (18) remains marginal: the contrast between (16) and (18) is subtle, and we are not entirely convinced that it fully supports G&P's claim.²² In any event, their account of (18) is somewhat problematic. On the one hand, they do not make explicit which features of *già* attract the E-argument. On the other hand, it remains unclear why its English cognate *already* cannot rescue a Present Perfect clause in a similar way, by attracting the definite E-adverbial out of VP:²³

- (19) * John has already left on Thursday.

Our overall impression is that the checking mechanism proposed to account for the "Present Perfect Puzzle" rests on a number of *ad hoc* assumptions and does not provide any new insight into the nature of the phenomenon. Additionally, the approach is based on an analysis of temporal adverbials which deserves further discussion. This will be the topic of the next subsection.

3.3. *On the status of temporal adverbials*

G&P adopt the conception of temporal adverbials as 'oblique' complements to the verb, proposed by Larson (1985, 1988, 1990). G&P provide further empirical evidence for the argument status of punctual DP adverbials, by pointing out the referential status of their Determiner head and the possibility of extraction from weak islands.²⁴ Let us assume the general correctness of the complement analysis, and consider the specific implementation proposed by G & P.

E-localizing adverbials are "licensed by the main verb by means of a temporal theta-role... corresponding to the time of the event" (p. 109). This means that the theta-grid of the verb contains two 'temporal' entities:

- (a) the event argument involved in T-role assignment (pp. 26-30) (whose status is unclear, as discussed in § 2.1);

- (b) the time argument, which receives a temporal theta-role encoding a relation between it and the event argument.²⁵

From a conceptual point of view, the distinction between T-roles and temporal theta-roles, as proposed by G&P, is not very clear. T-roles are meant to relate events; however, the temporal theta-role assigned to a time-denoting phrase like *alle cinque* ‘at five’ can equally be assigned to an event-denoting phrase like *al tuo arrivo* ‘on your arrival’. This suggests that T-roles and temporal theta-roles may actually involve the same type of temporal entities. There remains a stipulated difference: a localizing time argument like *this morning* in *John left this morning* is presumably assigned a theta-role expressing the temporal relation of inclusion ($e \subseteq$ this morning); however, in the case of Tense heads the very same relation of inclusion is by assumption not encoded in any T-role but assigned by a default rule at LF. This is not to say that the distinction between T-roles and temporal theta-roles is inconsistent; however, in our opinion it requires much more explicit discussion and justification.²⁶

A real inconsistency arises in the case of R-denoting adverbials. G&P acknowledge that R-adverbials cannot be theta-marked by the lexical verb, since they only appear with perfect tenses (p. 107), and furthermore, they can only appear in left- or right-dislocated positions (Bianchi et al. 1995).²⁷ Nevertheless, G&P assume that R-adverbials are generated in the lowest position within the VP and undergo covert topicalization at LF (following Kayne’s 1994 analysis of Right Dislocation). The obligatory dislocation is accounted for by the conjecture that “R-adverbials need to enter into some relationship with a higher projection – for example, that of the auxiliary, or of T1”, which may assign a temporal theta-role to the R-adverbial (p. 109). This account presents a number of problems. Empirically, Kayne’s (1994) analysis of Right Dislocation has been shown to be inadequate (Frascarelli 1997, 272; Cecchetto 1999); in any event, there is no reason why the R-adverbial should be merged within the VP in the first place, rather than in the higher “licensing” position. As for the latter, G&P’s discussion is unclear, and in the end contradictory. On p. 88 they argue that the adverb *now* in a Present Perfect context like *Now I have eaten enough* is an R-adverbial, hence its incompatibility with the Simple Past: **Now I ate enough*. However, the same adverb appears in the Portuguese example (9a), repeated here for convenience:

- (9) a. Agora ja comi o suficiente.

In G&P’s analysis, the Portuguese Simple Past does not contain T1 nor the Aux head (see § 2.3). As a result, neither of these heads could possibly license the R-adverbial.²⁸

4. *The problem of aspect.*

4.1. *Aspectual ambiguities.*

Chapter 4, entitled "The Present and Imperfect in Germanic and Romance", presents altogether different problems, revolving around the notion of aspect. As will soon become apparent, the unsatisfactory understanding of aspect is the weakest point of the book. The authors fall into a number of contradictions, which at times make the reader's task quite difficult. This is not to deny, though, that the chapter contains correct assumptions, such as the view of perfectivity as referring to topologically closed events,²⁹ or valuable insights, such as the topological definition of punctuality (pp. 157-160). The latter point accounts for the pragmatically oriented interpretation of punctual situations, so that the very same event may be interpreted as durative or punctual depending on the point of view adopted by the speaker. Consider for instance the implicitly punctual interpretation of *last week* in (20a):

- (20) a. John left last week.
b. John left at 3 o'clock last Tuesday.

However, since the task of this review is to critically evaluate the work, the authors will forgive us if we concentrate on points of disagreement.

As is well-known, the English Simple Present, as opposed to its cognates in most other languages, exhibits a fairly peculiar property. With eventive predicates, it may only express the habitual-generic meaning; in order to express the actual present meaning, the Present Progressive is required. G&P attribute this difference to a basic parametric variation, due to the fact that the English Simple Present coincides with the categorially ambiguous bare root (third person singular aside). Thus, they stipulate that the English Simple Present shows up with the [+perfective] feature with which the root of eventive verbs is allegedly endowed in order to identify it as verbal, while the Simple Present of most other languages, being characterized by explicit verbal morphology, is by definition associated with the [-perfective] feature (p. 164). This interpretation raises a number of questions, which we shall return to in the next section; let us mention here the most obvious ones. First, as Posner (1998) contends, the historical facts militate against it, for personal markers dropped out (in Middle English) long before the Simple Present lost its ability to express actual present meaning. Secondly, the claim that the habitual-generic reading of the English Simple Present is connected to perfectivity runs against the typologically well established observation that habituality normally correlates with imperfectivity. Indeed, this aspectual reading is often conveyed, in the appropriate contexts, by the same tenses that may convey progressive reading (cf. the Present and the Imperfect in Romance). Besides, there are compelling semantic reasons for

interpreting habituality as belonging to the domain of imperfectivity (Bertinetto 1986; Delfitto & Bertinetto 1995; Lenci & Bertinetto 2000).

But let us follow G&P's reasoning. The assumption of the perfective nature of the English Simple Present goes hand in hand with the "punctuality constraint" (p. 151), according to which perfectly viewed events cannot be anchored to punctual events. Since S is normally understood as punctual, the impossibility of the actual present reading of the English Simple Present follows directly. However, the import of this constraint is far more general, for it implies that perfectly viewed events can never be punctually anchored. This makes it hard to understand how one could ever utter sentences such as: *The gas explosion in Victor's house occurred at 5 o' clock sharp (right when Bill pressed the button of the door bell)*. Furthermore, as G&P observe, there do exist contexts where the Simple Present may be punctually anchored, namely: performative sentences (*I pronounce you man and wife*), reportive sentences (*Pelé now gets the ball, avoids a player and converges towards the middlefield*) or future-time-reference sentences (*The boat leaves tomorrow at 5*). Since most scholars agree that these contexts correspond to perfective situations,³⁰ this seems to create another problem of empirical faithfulness in G&P's model. Indeed, all these readings are also available in the Present tense of languages other than English, which according to G&P should always express the imperfective aspect. But even disregarding this, G&P's treatment of these facts is far from convincing. As to performative sentences, they claim that E does not temporally coincide with S, rather it is to be identified with it, to the effect that the entities involved are not two but one (p. 165-166). This, however (to the extent that it should not be regarded as an artefact), is not to deny that there is temporal coincidence, which is the real issue. As to reportive situations, G&P dismiss them as irrelevant (p. 153-154; in fn. 46, p. 192, they even discard a potentially embarrassing example by stating that it has a "reportive flavour"). This is anything but a solution to the problem. Finally, as to the Present with future-time-reference meaning, G&P simply ignore the problem.

Our view of the whole issue is completely different: in agreement with virtually all other scholars, we consider the Present an aspectually ambiguous tense. Although imperfective usages are statistically prevalent, this tense may convey perfective readings in the appropriate contexts (cf. performative, reportive and future-time-reference contexts). The degree of ambiguity varies from language to language, but this seems to be a fairly well established typological tendency. The fact that the English Simple Present normally conveys habitual-generic meaning with eventive predicates supposedly depends on the idiosyncratic division of labour between the Simple and the Progressive Present in that language. We are aware that this is mere description rather than explanation, but it is in any case to be preferred to the stipulation of an aspectual value (perfectivity) not supported by whatever is known about the semantics of the habitual aspect. Finally, as to the fact that the Present of achievement

predicates is best interpreted — even in languages other than English — in terms of past- or future-time-reference rather than as an actual present (Bertinetto 1986, § 5.1), this is simply a matter of statistical tendency. The availability of the performative and reportive readings even with these verbs shows that it cannot be a semantic constraint.³¹

4.2. *Actionality vs. aspect.*

Another problem with G&P's approach stems from their treatment of stative predicates. Recall that, in their opinion, in English the root of these verbs is not endowed with the feature [+perfective], a property that allegedly allows them to have actual present meaning; in fact, they are explicitly claimed to be imperfective (p. 182). Now, G&P also adopt Chierchia's (1995) view of habituality-genericity, i.e. the hypothesis that habitual sentences involve logical forms containing a generic quantifier (the so-called GEN). Furthermore, and again in agreement with Chierchia, the authors accept the idea that stative predicates are endowed with the same sort of aspectual projection, which replaces the [+perfective] feature attributed to eventive predicates (p. 166). From this, a rather paradoxical conclusion follows. Since the GEN operator that makes stative verbs imperfective is also involved in habitual situations — thus, presumably, also in sentences containing the Simple Present of the allegedly perfective English eventive verbs, in their standard habitual-generic reading — it turns out that the very same operator (namely, GEN) is involved in both the imperfectivity of stative predicates and in the perfectivity of eventive ones. This looks like a contradiction, which ostensibly can only be rescued by recognizing the imperfective character of the habitual-generic reading of English eventive predicates.

As to stative verbs, here again we would like to put forth an alternative view. Stativity should simply be treated as such, namely as an actional specification not to be confused with aspectual specifications of any sort. Indeed, depending on the context, statives may take on perfective, habitual, and even progressive readings. It is thus a fallacy, albeit one that is frequently observed, to postulate a fundamental link between stativity and progressivity, or between stativity and habituality (Bertinetto 1994).

The latter issue is connected with a more general one, namely the relationship between aspect and actionality. As thoroughly discussed by, among others, Comrie (1976), Bertinetto (1986), Smith (1991), Bertinetto & Delfitto (2000), these two notions should be kept apart, although they undoubtedly manifest deep and not fortuitous interconnections (Bertinetto 2001). G&P's attitude in this regard is rather ambiguous. On the one hand, they explicitly state that perfectivity should not be confused with telicity (p. 186, fn. 11). On the other hand, they often seem to conflate these two notions. For instance, after correctly defining perfective

aspect as (topological) closure of the event, they state (p. 162) that non-closed events — hence, events viewed imperfectly — are processes. Now, the notion 'process' is explicitly used by G&P to refer to non-stative atelic events (cf. Vendlerian 'activities'), in agreement with a widely accepted terminological usage. Note that the authors also claim that both accomplishments and achievements contain a process component;³² and since this component is precisely what is left behind when the telic component is dropped, as typically happens in imperfective situations, one can hardly avoid the conclusion that (a)telicity and (im)perfectivity dangerously interfere in G&P's views (see also fn. 29 above). Note that this is another frequently observed fallacy, as thoroughly discussed in Bertinetto (2001). And it is a fairly unfortunate one, because it makes the very foundations of the whole aspectual building rather shaky. If imperfective situations corresponded to processes, the obvious conclusion would be that processes could not be viewed perfectly. However, this is clearly not the case, as shown by sentences such as:

- (21) Anna pianse ininterrottamente per mezzora.
'Anne cried uninterruptedly for half an hour'.

Evidently, G&P have given an overextended interpretation to the so-called "imperfective paradox", namely the fact that telic predicates do not fulfill their telic nature in imperfective contexts; cf. *John was building a shelf*, which notoriously does not imply *John built a shelf*. This, however, does not mean that atelic situations necessarily involve imperfectivity, as proved by (21).

Another weakness of G&P's approach involves the aspectual interpretation of achievement predicates in Romance languages, or at least in Italian. According to the authors, when these predicates occur in the Simple Present or in the Imperfect, they can never convey the progressive reading. Thus, they are invariably interpreted as telic, as shown by (22a), and by extension perfectly. In order to convey the atelic reading, the progressive periphrasis should obligatorily be used, as in (22b). This claim is partially correct, but not for the reasons indicated by G&P. Indeed, the frequent telic reading of these predicates is not due to their alleged perfective nature; it is rather a mere consequence of their non-durative character, which makes the telic reading particularly salient. Since contemporary Italian has developed a fairly well established progressive periphrasis, it is no wonder that speakers often make use of it in order to disambiguate such sentences. However, it is not the case that the Present or the Imperfect of achievements invariably receive the telic interpretation; see (22c), which conveys the reading often referred to as 'imminent':

- (22) a. Quando Artù entrò, Merlino *creava* un unicorno. (= G&P's (56a), ch. 4)

'When Arthur entered, Merlin create-IPF a unicorn'.

- b. Quando Artù entrò, Merlino *stava creando* un unicorno. (= G&P's (56b), ch. 4)

'When Arthur entered, Merlin was creating a unicorn'.

- c. Il treno *partiva* proprio allora. Non c'era un istante da perdere.

The train leave-IPF right then. There was not an instant to lose

'The train was leaving right then. One had to rush'.

Actually, even (22a) may be interpreted by some speakers as an instance of progressivity. Thus, the observed regularity is more a statistically-bound pragmatic connotation than a semantically-constrained fact. Note further that the historical facts militate once more against G&P's view. Indeed, if there really were the need to use the progressive periphrasis to force the suspension (i.e. contextual block) of telicity in achievements, one would wonder why this periphrasis established itself first with durative verbs (processes and accomplishments), and only later on with achievements (Squartini 1990; Bertinetto 1996). Things actually went the other way round: the progressive reading of achievements was always available in the appropriate contexts, and the current tendency to use the progressive periphrasis is ostensibly a later development.³³

The unsatisfactory understanding of these facts led G&P to state that the Romance Imperfect is aspectually unmarked. Indeed, if the Imperfect of achievements is interpreted as perfective, while the Imperfect of the remaining types of predicate is not, the obvious consequence is that this tense should be viewed as aspectually ambiguous. However, this conclusion is at once unconvincing and incorrect. It is unconvincing because the same (pragmatic) intimations of telicity with achievements are also induced by the Present, not only by the Imperfect: thus, the former tense should have an equal right to be regarded as aspectually unmarked.³⁴ It remains a mystery why G&P chose to treat these two tenses differently, given their premises. But this conclusion is also incorrect. Indeed, just as the Imperfect (and the Present) of achievements may occasionally depict an atelic situation — as shown by (22c) — it is equally true that the Imperfect (and the Present) Progressive do not necessarily imply atelicity. Once again, this is a matter of pragmatics rather than semantics. Consider the following sentence, which could meaningfully refer to the very moment when Arturo is actually putting his left foot on top of the mountain:

- (23) Quando puntai il binocolo, scopersi che Arturo *stava* giusto allora *raggiungendo* la vetta.

'When I pointed the binoculars, I found out that A. was just then reaching the top'.

In other words, the ‘partializing function’ fulfilled by the progressive (cf. Bertinetto 1997, ch. 4) does not necessarily imply that the event is viewed at a stage preceding its conclusion. The focalized portion may also be, in the appropriate context, the final stage of the event. This, of course, undergoes severe pragmatic constraints. First, it never emerges, for quite obvious reasons, with inherently atelic predicates, where the conclusion of the event is not foregrounded (although events come to an end, sooner or later). Secondly, it does not emerge with accomplishments either, due to their durative character, which makes it hardly plausible to refer to the final stage of the event. But with achievements, things are clearly different, as just observed. Yet, nobody would deny that (23) is an instance of an imperfective sentence, as shown by the progressive morphology. Thus, the telic reading of achievements — with or without progressive morphology — is by no means a compelling reason to attribute a perfective character to these sentences.

4.3. *Understanding aspect.*

The formal representation of the Imperfect by G&P is also rather puzzling, and for a number of reasons.

First, note that the authors make a point of denying that temporal semantics is based on times, in addition to events (p. 23-26). In their view, even the reichenbachian entities (including the so-called Speech Time) are events rather than time points or intervals. Yet, in dealing with the Imperfect, they introduce two purely temporal entities, namely the "anchoring time" (symbolized as X) and t_E , i.e. the Event Time (p. 179). Thus, rather surprisingly, both S and E ultimately turn out to be “temporal variables”, in sharp contrast with the initial assumptions.³⁵ Obviously, we have no problem in accepting temporal entities alongside with events, although we shall not develop this point here.³⁶ However, the authors’ position is not convincing. Indeed, t_E should be identified with the temporal localization of E , rather than with E *tout court*. This would make much more sense in our view (see our discussion concerning R in § 2.1 above).

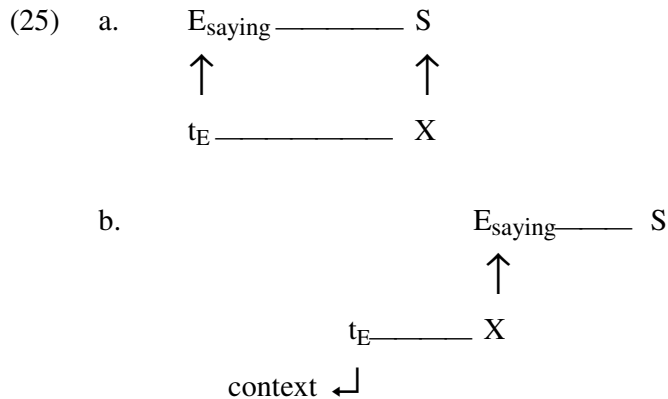
Secondly, the suggested use of these variables turns out to be quite problematic. Consider the drawings in (25), meant to correspond to the sentences in (24) (from G&P, p. 179:

(24) a. Mario mi ha detto che Gianni mangiava una mela.

'Mario told me that Gianni ate-IPF an apple'.

b. Mario mi ha detto questa mattina che ieri Gianni mangiava una mela.

'Mario told me this morning that yesterday Gianni ate-IPF an apple'.



Let us ignore the details,³⁷ and concentrate on the anchoring problem. The upper part of the drawings in (25) refers to the main clause. As (25a) shows, (24a) is taken in the simultaneity reading (whereby the events of saying and eating overlap), otherwise (25b) — rather than (25a) — would be given as a representation. Thus, the two sentences in (24) are meant to illustrate the simultaneous and the back-shifted readings, respectively. Now, consider (25b): the striking fact is that G&P do not assign any role to *ieri* 'yesterday' in their representation. Yet, this adverb — which obviously indicates an interval preceding the localization of E_{saying} — is something we definitely must take into account in order to localize Gianni's apple-eating event, plus of course a contextual indication specifying when exactly this event occurred within the interval designated by *ieri* (presumably, this is the meaning of "context" in the above drawing). In other words, *ieri* (plus implicit contextual indications) plays in (25b) the same role played in (25a) by the main clause: namely, it provides the necessary anchoring required by an intrinsically anaphoric tense such as the Imperfect in its most typical uses, like the progressive reading exemplified in (24). But note that this makes any further reference to either S or E_{saying} , by means of the anchoring time X, quite unnecessary. The Imperfect is indirectly linked to S in (24a) or to E_{saying} in (24b) as a mere consequence of the temporal interpretation of the main clause. In other words, X is not any more required in (24) than it would be in a sentence containing the Pluperfect:

- (26) Mario mi disse che Gianni aveva mangiato una mela.
 'Mario told me that Gianni had eaten an apple'.

Here, the event of eating is characterized as anterior to an R that — depending on the situational context — may coincide with the very event of saying or be contextually localized prior to it. As to the relation to S, this is indirectly provided by the past localization of the main clause tense. Needless to say, one may also require any tense, even embedded ones, to be redundantly anchored with respect to S, and indeed we would have no principled objection

as regards this theoretical move; but then no difference at all should be observed between (24a) and (24b). Note, in fact, that the only difference lies in the fact that the localization of the event of saying is (vaguely) provided in the latter sentence (*questa mattina*), while it is left totally unspecified in the former. However, this is irrelevant. All we need, in order to construe the temporal interpretation of the sentences in (24), is: (a) the localization of E_1 (= the event of saying); (b) the localization of E_2 (= the event of eating), which should be viewed as overlapping a contextually provided anchor. Now, in (24a) E_1 is implicitly localized before S, while E_2 is interpreted as overlapping with E_1 (given the intended reading). In (24b), by contrast, E_1 is explicitly localized before S (*questa mattina*), while E_2 is interpreted as overlapping a specified interval (*ieri*) preceding E_1 (more precisely, as overlapping an undefined subinterval contained in that larger interval). In conclusion, in the name of the principle that says entities should not be multiplied *praeter necessitatem*, X should be dispensed with, for it is either unnecessary (should one consider it redundant in dependent clauses) or a duplication of an already existing device (should one admit the necessary anchoring to S of any tense, even in dependent clauses). As to the interpretation of the Imperfect (in its most typical uses), all that is really relevant is the fact that it is understood as overlapping a contextually provided anchor, be it a temporal indication (as in 24b), or another event (as in 24a). The moral we would like to draw from this, then, is: temporal entities are a necessary ingredient (counter to G&P's initial assumptions), but too many of them definitely make things worse.

Considering the criticisms developed so far in section 4, the real question becomes: Why is G&P's treatment of aspect so unsatisfactory? We believe the ultimate reason is that, in their theoretical construction, there is no clearly defined place for this notion. Note, in fact, that although the book presents several phrase markers, there are very few instances where an ASP projection shows up (p. 129). This is a clear indication that the authors have no explicit theory about it, as has also been remarked by Delfitto (to appear) in his review of this book. Furthermore, even the very scanty references to an ASP projection in G&P's discussions do not make things any better. Apart from the informal use of the notion of 'aspect', which gives rise to all the above-mentioned problems, the only cases where the ASP projection is explicitly named are the following:

- (i) In connection with the definition of the notion "Undefined-state",³⁸ the claim is advanced that, given the aspectual characterization of the categories of perfect and prospective, T2 should be understood as the synchronic category ASP/T2 (p. 100).
- (ii) In connection with the discussion of the adverb *appena* 'just' (pp. 126-133) — which incidentally contains quite insightful proposals — the suggestion is advanced (p. 129) that the Perfect Participle has two aspectual projections (ASP1/T2 and ASP2), in whose Spec positions *appena* may land, taking up correspondingly different interpretations.

(iii) In connection with the discussion of the properties of stative verbs, already alluded to in § 4.2, the authors claim (p.188, fn. 26) that these predicates contain the "aspectual projection" to be linked with the quantificational operator GEN (p. 166).

We have a number of reservations. As to (iii), the interpretation of the actional category 'stative' by means of an aspectual feature appears to be a clear instance of the (unfortunately all but infrequent) confusion of the categories of actionality and aspect, as already noted (cf. § 4.2). As to (ii), one should observe that the lower ASP position is explicitly associated by G&P with a reading that has no aspectual character at all.³⁹ Thus, what we observe in both (ii) and (iii) is an undue extension of the notion of aspect. By contrast, (i) may be interpreted as a case of under-representation of this category. In fact, while it is an undisputable fact that "perfect" is an aspectual notion, it is hard to understand why the aspectual projection is not assumed to exist in all cases. Indeed, an aspectual interpretation is always, necessarily involved: be it a generic perfective vs. imperfective reading, or a more specific one (perfect, progressive, habitual etc.). For instance, as has lately been proposed, a perfective reading may possibly be understood as the instantiation of an existential closure of the event variable (Delfitto & Bertinetto 2000, Lenci & Bertinetto 2000), while imperfective readings may possibly be viewed as relating to cardinal quantification (Delfitto & Bertinetto 1995), or to a special form of generalized quantification endowed with relational strength (Delfitto & Bertinetto 2000), and more specifically — with respect to habituality — to an intentionally-oriented kind of quantification (Lenci & Bertinetto 2000). Although the details remain unclear, and indeed much more work is necessary in order to arrive at a full understanding of the problem, we would like to claim that a quantificational view of aspect, as also proposed by Bonomi (1995; 1997), seems to be the most promising approach.

In any case, the real problem here is not the refusal by G&P to consider the presumed merits of the quantificational approach (p. 156), but rather the fact that their model does not provide any explicitly defined role to aspect. Whenever it comes to actual formalization, this notion is but sporadically invoked, as opposed to being treated as a fundamental component of natural language semantics. If one adds that their informal discussion of aspect is clearly at odds with the most widely accepted views developed within the typological study of temporal-aspectual phenomena (see § 4.1-2), it becomes apparent that the implementation of this category is by far the weakest point in G&P's construction.

5. *Conclusion.*

To conclude this review, let us recall our main objections to G&P's proposal:

- (a) The treatment of aspect is heavily deficient (see section 4); in particular, the treatment of the Perfect is unsatisfactory (see § 2.2 and the whole of section 3), as is also shown by the misinterpretation of the meaning of the Compound Past in Latin, Italian and Portuguese (see § 2.1 and 2.3);
- (b) The treatment of actional phenomena is occasionally based on subtle misconceptions (see the actionality/aspect confusion criticized in § 4.2);
- (c) The syntactic treatment of the Present Perfect Puzzle suffers from a number of technical problems (see § 3.2-3).⁴⁰

A rather troublesome point in G&P's contribution is what we dubbed above the "morphological bet". G&P's morphological bet in the tense-aspect domain is clearly related to a more general research strategy concerning the status of functional heads in the Principles and Parameters/Minimalist framework. These heads have a double "interface" status: on the one hand, starting from work by Pollock (1989), they have been taken to correspond to inflectional morphemes, or more accurately, to the morphological exponence of specific inflectional features; on the other hand, starting from work by Higginbotham (1985) and Abney (1987), they have also been taken to encode some core semantic functions such as tense, aspect, quantification, propositional force and the like (the literature on these topics is too vast for us to summarize it here). Within the minimalist perspective, G&P make the most radical possible assumption, according to which the two above-mentioned components (i.e. semantic functions and morphological exponence) should be in a one-to-one correspondence.

We have tried to show that this view is excessively rigid, and that the three levels of semantics, syntax, and morphology must be assumed to be partially independent, although obviously related in a non-arbitrary way.⁴¹ Note in particular that G&P's theoretical assumption seems to presuppose, for any given language, an extreme form of agglutinative behaviour, whereby form and meaning correspond to each other in a one-to-one fashion. However, this is strikingly at odds with present-day typological linguistics, where the notion of agglutinative morphology is now viewed with great suspicion. According to scholars such as Plank (1999) or Haspelmath (2000), alleged agglutinative languages present several properties typical of inflectional languages, and indeed very few languages seem to approach (to some extent) the agglutinative ideal. We believe that G&P's approach to these problems should be revised in such a way as to cope with the observable data of natural languages.⁴²

Secondly, we wish to comment upon G&P's treatment of perfect tenses and the Imperfect. G&P are aware of the role of discourse anaphora in the interpretation of the Imperfect, but they can only integrate it in their analysis by introducing a fourth temporal entity, the anchoring time, and by postulating that it is intrinsically anaphoric. Furthermore, as discussed

above, G&P's approach (like other strictly reichenbachian approaches, e.g. Hornstein 1990) fails to distinguish between the two functions of Reichenbach's R point. In simple tenses, the R point essentially reduces to a localizer of the event; in perfect tenses, however, it plays a different role. As we have argued elsewhere (Bianchi et al. 1995; Bertinetto & Bianchi 1996), it is a "perspective point", i.e. a contextually relevant time point which allows the speaker to take a particular perspective on the event; as such, it finds its *raison-d'être* in the overall discourse structure.⁴³ We believe that the authors failed to seriously take into account the discourse function of tenses. Once again, this is an obvious consequence of their theoretical options: in a minimalist framework, the computational system cannot have access to contextual information (cf. Chomsky 1999, 26). We are not claiming that a formal syntactic analysis of tense and aspect is irrelevant, but rather, that tense and aspect are intrinsically *interface phenomena*, in which the syntactic configurations yielded by the computational system crucially interact with the independent constraints of other external systems. One of the most welcome consequences of the minimalist turn is the fact that, by reasserting the independence of the "dumb" computational system, it has at the same time highlighted the role of the external systems in imposing bare output conditions on it, and it has raised the (formerly underestimated) issue of interface relations. This is by now one of the most lively research areas, and we believe that this "interface perspective" may prove fruitful in the tense-aspect domain, as well.

As the preceding sections show, we have a number of reservations — in some cases fairly strong ones — as to the direction taken by G&P in their book. This said, we are fully aware that nobody could feel completely safe in a theoretical territory like the one at issue, and we do not want to convey the idea that we found G&P's book unrewarding. Quite the contrary, we believe that this work has the undoubted merit of exploring to the extreme a number of relevant hypotheses. The fact that many of them should (in our view) be weakened or revised does not mean that the attempt was useless. We now know more about these intricate problems, and may all profit from a narrower definition of their contours. And just to make things clear, let us honestly state that although we have levelled a number of criticisms, at the moment we have no alternative theory to offer. This task is still before us all.

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¹ Although this paper was jointly discussed by the two authors, the scientific responsibility is neatly divided: PMB took care of semantic and typological problems, while VB dealt with syntactic issues. Thus, subsections 1.2, 2.1, 2.3, 3.1, plus the whole of section 4, should be attributed to PMB, while subsections 1.1, 3.2, 3.3 should be attributed to VB. On the other hand, the introductory remarks of section 1 and the conclusion (section 5) may be considered a common product.

² As is also shown by Delfitto's review (to appear).

³ For reasons that will soon become clear, in what follows we slightly deviate from the terminological use of G&P, particularly with regard to the Present Perfect. We shall use this label: (a) in reference to the English tense traditionally bearing this name; (b) in reference to the aspectual interpretation typically possessed by this tense, but also available to analogous tenses in other languages. As to the morphological equivalents of the English Present Perfect in other languages, we shall employ the term Compound Past, in order to remain vague as to their aspectual interpretation (past perfective or (present) perfect). For the same reason, we shall employ simple quotes when referring to the Latin 'Perfect'. In general, we shall employ capital initials for tenses denominations, and small caps for aspectual denominations.

⁴ For instance, both the problem of temporal adverbials and that of verb movement are taken up in two different sections of chapter 3, so the reader does not have an easy time reconstructing the intended interpretation. Hopefully, we managed to do so (cf. § 3.2-3).

⁵ A hypothesis most prominently advocated by Cinque (1999).

⁶ Universal ranking does not hold for lexical heads. Later in the text (p. 83), the authors exploit this distinction in order to allow the Negation head to be freely ordered w.r.t. functional heads. The conception of negation as a lexical head is somewhat unexpected and based on a very loose notion of lexical head: "[it] has semantic content". This also gives rise to a minor but disturbing inconsistency: on p. 70 G&P propose a universal ranking such that the tense (t) feature is higher than the agreement (f) features; however, on pp. 39-41 they crucially assume that their Tense heads are lexical, and as such they should be exempt from the Universal Ordering Constraint.

⁷ The referential approach is also adopted in various other analyses couched in the P&P framework, e.g. Stowell (1995, 1996), Zagona (1988, 1995).

⁸ S, R and E are, of course, the reichenbachian notions of 'speech', 'reference' and 'event' time.

⁹ Actually, the morphological bet has something to say even in this case. According to G&P, the presence of an explicit tense morpheme implies some degree of markedness, which they associate with the imperfective aspect. Now, the Romance Imperfect obviously presents an explicit morpheme, and therefore should be imperfective; but, for reasons that we shall see below, since this would lead to internal inconsistencies, the authors opt for the neutralization solution. We defer the discussion of aspectual phenomena to section 4. Here, we would like to briefly comment on the use of the notion of markedness, which G&P use with direct reference to morphological explicitness. However, there is another way to make use of this notion, inspired by typological comparison, that seems to be more appropriate to us. According to this view, one can say that perfectivity is marked in the case of the Present and the Imperfect, while

imperfectivity is marked in the case of the Simple Past, whatever the specific type of morphological implementation. This leads to interlinguistically sounder statements.

¹⁰ Note, however, that even Italian exhibits, in some verbs, an unmistakable marker of Present, i.e. the augment *-isk-* to be observed in verbs such as *finire* 'end', *capire* 'understand' etc.: cf. *finisco*, *capisco*.

The hypothesis that Present tenses lack T1 is incompatible with Chomsky's (1995) proposal that T is crucially required to license Nominative Case. In an interesting appendix (pp. 52-56), G&P highlight the interrelation between Nominative Case and person agreement, and suggest that, at least in Italian finite clauses, the Nominative feature is syncretic with AGR1; however, they do not address the question of why the Person feature is licensed only in a subset of verbal forms.

¹¹ Considering the formal analogy between the T-criterion and the Theta-criterion, as well, we would expect each Tense head to assign two T-roles, one for each argument of the two-place relation that it encodes, as in Stowell (1996).

¹² G&P devote a long discussion to the problem of the incorporated auxiliary in the relevant Latin forms. While we refrain from engaging in this discussion, the reader should be aware that this is a fairly controversial issue, on which no substantive bet should be made.

¹³ Cf. II, 110 (*datura fui*); XV, 102 (*dolitura fui*); XVI, 140 (*futura fuit*); XVII, 93 (*peccatura fuisset*); XXI, 7 (*lectura fui*). Note that the existence of *peccatura fuisset* prevents us from assuming that the problem discussed here is simply due to G&P's decision to consider the Latin 'Perfect' as an unmistakable instance of the perfect aspect. Even if the 'Perfects' in all the remaining examples were regarded as cases of purely perfective aspect, the form *peccatura fuisset* would nevertheless testify that the Prospective Participle was compatible with an undisputably perfect form like the Subjunctive Pluperfect.

¹⁴ As Klein and McCawley remark, with a different predicate it may make sense to predicate a property of Frege even if he is no longer alive, but still exists in some abstract sense that is relevant for this predication:

(i) Frege [=his scientific thought] has contributed a lot to my thinking.

¹⁵ The argument based on the future-time-reference was possibly suggested by the fact that the Compound Past of Italian and French, as noted in Bertinetto (1986), may have this interpretation to the exclusion of the Simple Past:

(i) a. Vengo quando ho finito / Je viens quand j'ai terminé.

b. * Vengo quando finii / * / Je viens quand je terminai.

'I come when I am done'.

However, this has no direct bearing on the Present Perfect reading, and is in any case a fairly delicate question. Different languages do different things in this connection. For instance, the literal translation of (i,b) into Portuguese is ungrammatical, despite the flexibility of this tense, as shown by (ii,a). In these contexts, Portuguese and Spanish require the subjunctive: Future in Portuguese, as in (ii,b), Present or Compound Past in Spanish, as in (ii,c):

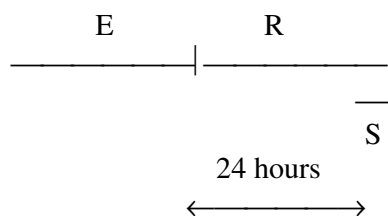
(ii) a. * Venho quando terminei.

b. Venho quando terminar.

c. Vengo cuando acabe / haya acabado.

¹⁶ Not to be confused with habituality proper, though; on this point, see Lenci & Bertinetto (2000).

¹⁷ The situation is made even more complicated by the fact that G&P seem to oscillate in their representation of R. Recall that their proposal for group B languages is that R is not strictly definite, lest both boundaries of the Consequent State be definite whenever a localizing adverbs shows up. This clearly suggests that R does not coincide with the Consequent State; and correctly so, because in the reichenbachian tradition which the authors refer to, R is not understood as adjacent to E, apart from very special cases. However, when discussing the situation of the Spanish Compound Past, which in the metropolitan standard exhibits a "hodiernal constraint" to the effect that E should be located within the current day, G&P present the following drawing (p. 122):



This suggests a different interpretation, whereby R stands for the Consequent State tout court. Presumably, this reflects the uncertain theoretical status of the Present Perfect Puzzle even in the eyes of G&P.

¹⁸ G&P dismiss this type of counterexample in note 72, ch. 3, where they claim that the incompatibility of a definite localization with the Compound Past in a group B language is no counterexample to their analysis, because it may be due to "the intervention of other factors". As far as we can see, this means that the Present Perfect Puzzle does not receive a cross-linguistically unitary account. In the same footnote, G&P quote American Spanish as a possible counterexample of this type. Our guess is that they refer to some Mexican varieties in which the Compound Past essentially behaves like the Portuguese one (cf. section 2.3), as discussed by Squartini & Bertinetto (2000, 411-412).

At any rate, written literary Swedish (now a group A language) seems to provide another counterexample (Östen Dahl, p.c.). Until half a century ago, it behaved like group B languages, in that it had person agreement in both the Present and the Past, as is still to be observed in some nonstandard varieties of Swedish; however, this did not have any influence on the semantic interpretation of the Perfect (i.e., the Present Perfect).

¹⁹ Significantly, Finnish is like English also with respect to the usage of the Compound Past with stative verbs, as in:

- (i) a. Olen tunnut Pekan kahdessa vuodessa.
- b. I have known Peter for two years.

although this behaviour is less consistently applied in Finnish.

²⁰ In Kayne (1993), D/P dominates a whole clausal structure including AgrSP, TP, and AgrOP. In G&P's structure it dominates T2, and presumably also AGR2, although they give no explicit indication about this.

²¹ Specifically, on Kayne's analysis the incorporation of D/P to the copula BE, yielding HAVE, is required in order to provide an intermediate landing site for overt raising of the subject out of the participial structure (Kayne 1993, 8). If D/P incorporates covertly in unaccusative structures, as opposed to unergative and transitive structures, two problems arise: (i) it is necessary to devise a different analysis for the overt raising of the subject out of the participial structure — in particular, with a derivation that does not exploit

Spec,D/P in unaccusative structures; (ii) it is necessary to identify a different trigger for LF incorporation of D/P in unaccusative structures, or a general trigger for D/P incorporation different from Kayne's proposal.

²² For one thing, note that the rescuing effect of *già* is much weaker in a sentence where the perfect form expresses a non-iterable event:

(i) ?* Giovedì, Mario era già morto mercoledì.

On Thursday, Mario be-IPF already died on Wednesday.

This shows that the relatively improved grammaticality of (18) as compared to (16) emerges only in the iterative interpretation of the adverbial *già*, but not in its purely perfectal interpretation.

²³ Of course, (19) is acceptable if the adverbial receives an indefinite interpretation, parallel to that of (13b).

²⁴ See Bianchi (1997, 83-85) for a critical discussion of this evidence. Though the complement analysis of DP time adverbials is by now well established in the literature, it has been pointed out by various authors that it does not easily generalize to other time adverbials: on the one hand, there is evidence against it for clausal adverbials (Williams 1994, 180; Manzini 1994; Bianchi 1997, 2000); on the other hand, many time adverbials appear to be 'predicative', in that they are introduced by a preposition (or prepositional complementizer) which expresses a temporal relation between two events, e.g. *before* (Bianchi 2000). See Stroik (1992, 269-70), as well, who argues for the predicative nature of DP time adverbials.

²⁵ By the author's assumption, the temporal argument is always present: when not expressed, it is interpreted indexically, as in *I have read a paper by Chomsky* (p. 109-110).

²⁶ A possible alternative is Stroik's (1992) proposal that temporal DP adverbials are secondary predicates, predicated of a phonetically empty temporal argument (corresponding to the 'davidsonian' e-position).

²⁷ On p. 108, the authors argue that R-adverbials fail their tests for argumenthood. However, as for wh-movement out of weak islands, this point is irrelevant, because R-adverbials cannot undergo wh-movement in general, due to their intrinsic topical status (cf. their note 55 to chapter 3). On the other hand, adverbial preposing (in the sense of Cinque 1990, 89-94) may front an R-adverbial out of (some) weak islands, as shown in (i)-(iii). (Consider the interpretation whereby the adverbial at five identifies the R point rather than the E point.)

(i) ? Alle cinque, non so se Gianni sarà già rientrato a casa. (wh-island)

At five, (I) don't know whether Gianni will have already come back home.

(ii) Alle cinque, nessuno era ancora rientrato a casa. (negative island)

At five, nobody had yet come back home.

(iii) ?* Alle cinque, mi spiace che Gianni fosse già rientrato a casa. (factive island)

At five, (I) regret that Gianni be-IPF-SUBJ already come-back home.

Thus, this type of evidence seems inconclusive. Because of limited space, we cannot discuss this selective island sensitivity here, or compare it to the behaviour of E-adverbials.

²⁸ The adverb *ja* could play a role in licensing the R-adverbial. However, G&P argue that its Italian analogue *già* attracts the E-argument, rather than R (cf. the discussion around example (18)).

²⁹ However, we have some reservations as to the claim that perfectly viewed events may not contain other events of the same type (p. 156). This conflicts with the generally

admitted property of downward entailment possessed by atelic events viewed perfectly. This property becomes particularly prominent in connection with *for*-adverbials, notoriously incompatible with the fully-fledged telic reading, to the effect that accomplishments undergo detelicization in such contexts (Bertinetto 1986; Bertinetto & Delfitto 2000). Indeed, if ‘John ran / read a book for one hour’, it is also true that ‘he ran / read a book for half an hour, for 15 minutes, for 5 minutes, and so on’ (cf. Krifka 1989). One therefore has the impression that whenever G&P speak of perfectivity, what they really have in mind is perfectivity associated with fully-fledged telicity. It is in fact obvious that a sentence such as *John read a book (in one hour)* does not contain any telic subevent of the same sort. See below for further clues to this sort of misunderstanding.

³⁰ Actually, this is not entirely true with respect to reportivity. The perfective character of reportive sentences is a mere statistical tendency; however, a reportive use of the Present Progressive may also be observed (Bertinetto 1986, § 5.2), as in:

(i) The Queen is now approaching the tribune.

Note that, according to G&P (p. 153), the time of a reportive Present “is not (directly) related to the speech event”. This is definitely a non-standard interpretation. A more appropriate view on the matter is perhaps the one proposed by Cowper (1998, 12-13), according to whom in the reportive reading the Discourse Anchor is interpreted as an interval rather than as a time point.

³¹ A frequently noted fact is the future-time-referring meaning of the Present of ‘perfective’ verbs in Slavic languages like Russian; cf. *ja zasplju* ‘I shall fall asleep’ as opposed to *ja splju* ‘I sleep/am sleeping’. In order to fully understand the issue, one should realize that in Slavic languages the opposition ‘perfective’ vs. ‘imperfective’ is first and foremost based on the contrast telic vs. atelic, i.e. it is based on an actional rather than aspectual opposition; its exploitation in the aspectual domain is the result of further developments that took place in some of these languages, by no means all of them (Bertinetto 1986; Bertinetto & Delfitto 2000). Thus, ultimately, Russian ‘perfective’ verbs behave like (perfectively used) Germanic or Romance telic verbs, for the simple reason that they are themselves telic and perfective.

³² Actually, while this statement is uncontroversial with accomplishments, it is rather problematic with achievements. However, what the authors mean is fairly clear: the process component of achievements is what other scholars call the “preparatory phase”, or the like, i.e. the durative (pragmatically specifiable) component that leads up to their non-durative culmination.

³³ Admittedly, the situation shown in (22c) does not apply to all achievements. Cf. the following example, suggested to us by Denis Delfitto (p.c.):

(i) ?? *Geo moriva proprio in quel momento. Il dottore riuscì a salvarlo con un intervento delicatissimo.*

Geo die-IPF right at that moment. The doctor managed to save him with a very delicate operation.

However, the point we wish to make is simply that the telic interpretation of the Imperfect with achievement verbs is not obligatory. For instance, the atelic reading may emerge in temporal clauses introduced by *mentre*, as in:

(ii) *Mentre Ada accendeva la luce, un subitaneo corto circuito provocò un black-out nell'intero villaggio.*

While Ada put on-IPF the light, a sudden short circuit caused a black-out in the whole village.

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- ³⁴ Cf.: *Phil reaches the top, now*. G&P avoid the problem, as noted above, by dismissing as irrelevant the reportive reading.
- ³⁵ On the page cited, G&P say that X is "the equivalent of the anchoring time S, appearing in indexical tenses", and in a previous passage (p. 173) claim that "the speech time S - that is, the indexical anchor - and a contextually given temporal anchor have the same properties, *as far as they are considered anchoring times*" (italics in the original). Indeed, the authors repeatedly observe that S is the default anchor. This seems to lead to the following conclusion: if the temporal entity X (in the relevant contexts) does the same work as S, it follows that S is indeed a temporal entity, rather than an event, as initially suggested by G&P.
- ³⁶ For one thing, what kind of an event does a purely chronological indication like *at 5 o'clock* stand for?
- ³⁷ Note that, according to the theoretical assumptions made by G&P in chapter 1, E and S should not enter into a direct relation (cf. § 1.1 above). Anyway, it is reassuring for us to observe that they implicitly recognize the practical impossibility of complying with this claim.
- ³⁸ The Undefined State is a neutral notion subsuming both the Consequent State of perfect tenses and the Prospective State of prospective tenses.
- ³⁹ Consider the following sentence (= example 156a, p. 128):
- (i) Mario è appena arrivato.
'Mario is just arrived'.
- This may have two interpretations: (a) temporal, whereby it means that 'Mario has just arrived'; (b) sortal, whereby it means that 'Mario has simply / only arrived' (as opposed to anything else). In the latter reading, which is the one at issue here, *appena* "selects the minimal element from a given domain" (ibid.), such as the domain corresponding to the set of events of which 'arrive' may be regarded as the minimal one. It is quite evident that this sortal (ultimately, lexical) selection has nothing to do with the notion of aspect proper.
- ⁴⁰ One may be tempted to add that the book contains no hint as to the treatment of non-finite tenses; however, it would be definitely unfair to consider this a weakness, considering the rich array of phenomena addressed.
- ⁴¹ In this respect we agree with Jackendoff (1997: 132).
- ⁴² As a further example of this fallacy, consider fn.27 of ch.4 (p.188-189). According to G&P, the Simple Past *lesse* 's/he read' exhibits "no explicit aspectual morpheme", although "it is derived from a stem which differs with respect to the one of the Present and the Imperfect, *legge* (reads) and *leggeva* (read-Imperfect)". It is hard for us to understand in which sense *lesse* presents no explicit aspectual morpheme, precisely because the stem on which it is based unequivocally indicates that it is a Simple Past form. Apparently, G&P deny true morphological status to morphological categories as such (like 'Simple Past'); all that matters is their compositional nature. This seems to be a much too narrow definition of morphology, one that does not do justice to the very flexible behaviour of natural languages.
- ⁴³ This view immediately accounts for the observation that perspective point adverbials necessarily occur in a topic position (see the references quoted above for details). A partially similar intuition is expressed by Klein's (1992) conception of R as a 'topic time'.