Towards a theory of phases and phasal verbs in language typology

Abstract

In the opening sections I propose four types of phasal form-meaning pairs, namely phasal verbs, phasal Aktionsart, telic phases and aspectual phases. Taking these distinctions as starting points, I sketch the pillars of a typological theory of phases in language, including suggestions for a methodological framework. Under the heading “Simple Phase Semantics”, I introduce the cross-linguistically constants of the concept of phase, described in terms of four features in phasal grammar, more specifically Conceptual Completeness (CC), Time Condition (TCon), Restricted Categorical Selection (RCS) and Participant Reconstruction (PR). For each feature, I will propose a set of empirical hypotheses connected with this feature. Every section concludes with a short and cursory review of empirical studies of the feature under discussion.

1 Phases: an overview of phasal types

In language typology, just like in other branches of linguistics as well, the term ‘phase’ refers to a semantic field consisting of the three primary phasal subgroups ingressive (‘begin’), egressive (‘stop’) and continuative (‘continue’), which, in a sense, exhaust this field (cf., for instance, Plungian 1999: 313). Phases as typological research objects are particularly prominent in the Slavic-Russian typological tradition where they also are subject to considerable theorising (Apresjan 1974: 75, 288f; Mel'čuk 2001: 8341;
Nedjalkov 1987; Chrakovskij 1987; Letuchij 2005; Letuchij 2004 and others). Phases play, however, an important role in other typological schools as well, particularly in empirical research. Here, they appear frequently in the context of grammaticalisation and auxiliary research (cf., for example, Heine 1993: 35-48, 60-66; Anderson 2000/2004: 814; Anderson 2005), and, to a somewhat lower degree, in other descriptive typological research into lesser known languages, for example Fongbé and Haitian Creole (da Cruz 1995; Lefebvre 2004), Lezgian (Auwer 1998: 30), or Tamil, Vietnamese and Bahulal (Maisak 1999). It is, still, obvious that phases as grammatical and semantic phenomena have mainly and most thoroughly been explored in the European standard languages like Danish and German (for example Engerer 2010, 2007), French (Nef 1980; Lamiroy 1987), or English (comp. Newmeyer 1975; Freed 1979; Brinton 1988). On this background, short and incomprehensive as it is, we can conclude that phases are proper objects of investigation in language typology.

From a typological perspective, the semantic field of start, end and middle phase, taken together with the formal correlates of these three meanings (“phasal expressions”), can roughly be divided into four expression types (I) – (IV) which, though located on different levels of grammatical description (lexical, derivational, inflectional), can help to identify typologically relevant parameters in cross-linguistic investigations into phasal grammar and semantics. The four phasal types can be characterised as follows.

1.1 Type I: phasal verbs

The structural correlates of phasal meanings are predominantly, and prototypically, located in the lexicon, but also on the morphological layer if the language in question...
has developed sufficient phasal morphology (first of all, phasal prefixes; I will discuss this as type II below). In the first case, focus is on verbal units, typically a class of verbs that “most purely” express phasal meanings. This verbal category is, quite generally, called “phase/phasal verbs” (although the term “aspectual verbs” is also frequently used) and can be illustrated by the English verbs begin, start; stop, end, finish; and continue, resume and more (thorough analyses of English phasal verbs are found in Newmeyer 1975; Freed 1979; Brinton 1988).

Most languages, if not all, have phasal verbs (if they have verbs at all), which form a closed group of lexical, not necessarily formally connected verbal expressions, exhibiting phasal meaning in its purest (and poorest, i.e. grammaticalised) form. In linguistic practice, phasal verbs therefore are regarded as the prototypical exponents of phasal meanings, and serve therefore as role models when phasal semantics in general is to be explored (Engerer 2010; examples are Engerer 2000a, 2002). On the syntactic level, phasal verbs combine with other verbal units, in most languages with infinite verbal syntagms with a full-fledged “content verb” as head (cf. Croft 2000/2004 on lexical vs. grammatical meaning). These attributes let phasal verbs appear as grammaticalised, content-weak units and relate them to auxiliaries, a connection which can be attested in many languages (Anderson 2005; Brinton 1988; García 1967). Their semantics is simple and applies straightforwardly in an operator-like manner to the infinite verbal group’s denotation. Phasal verbs seem to be, as already stated above, universal in the lexicon of the languages of the world – if the language in question possesses verbs at all; if not, the possibility of semantically to compensate with ‘phasal nouns’ (cf. Brömser 1986) or other word classes or
expressions (for phasal adverbials, for instance, see Auwera 1998) must be taken into account.

1.2 Type II: phasal Aktionsart

Secondly, we have to consider essentially morphological phasal devices, most prominently, phasal affixes combining with appropriate verb stems. This combinatory process, being the morphological counterpart of the syntactic mating of phasal verbs with their complements as described in (I), involves typically other meaning aspects as well, which, though not identical with phasal meanings proper, can be related to them. (Note, for example, the resultative which has clear links to the phasal egressive, but is not identical with it as ending a situation is not necessarily connected to resultativity.) Phasal derivational devices of type (II) are most prominent in languages with rich derivational morphology and are, therefore, not universal but language-type specific. Often, phasal means of type (I) and (II) co-exist in one language system, resulting in semantic differentiation of the conditions of use between the two types.

The morphological tools to express phase meanings have been extensively explored under the heading of Aktionsart, first in the Slavic languages where prefixation of verb stems, in interaction with aspectual morphology (including suffixation), constitutes an elaborate and productive system in order to produce phasal meanings. As this morphological systematicity is, in the languages under consideration, strongly associated with abstract, grammaticalised phasal affix meanings, specialists in these languages are inclined to delimit the notion of Aktionsart to solely those morphological means that are specialised on focusing on particular phases of a verbal situation (Boogaart 2000/2004: 1167, 1172; cf. Leiss 1992: 42). This approach, according to
which Aktionsart is phasal in nature, morphological, language systematic and a purely grammatical notion, has been labelled as the “B-position”, and stands in opposition to the view (the "A-position", also introduced by Steinitz 1981) that the Aktionsart feature is not linked to a specific grammatical layer of language, structures the verbal lexicon as a whole and, quite generally, determines, in a compositional fashion, the “actionality” of sentences (François 1985: 229, 233f). This latter, grammatically less strict position is mainly adopted for the description of languages like German which do not have the systematic morphological means to express generalised phasal meanings and, therefore, encode them on other layers of the grammar (lexical morpheme meanings, specialised syntactic constructions and more).

In Aktionsart taxonomies referring to languages of this type,³ time-related “phasal Aktionsarten” are in a first step distinguished from non-time-related components of the event (mostly aspects of intensity). The “phasal Aktionsarten” group consists then of an inhomogeneous collection of, in one way or another, time-related verbal meaning components like aspect (imperfective/perfective), the durative/punctual distinction or telicity (for instance, resultative verbs), all these standing side by side with the phases beginning or end proper (in all these taxonomies, the continuative is left out).

Newer research though seems to agree upon that the morphological devices to produce Aktionsart meanings are much more elaborate and systematic than assumed, at least in German, and that phases are the basic category in the field of Aktionsart semantics (cf. Kühnhold 1973; Engerer 2009).

1.3 Type III: telic phases
Thirdly, perhaps less obvious, phasal meanings can in certain verbs establish a kind of fixed, twofold phasal skeleton (pre-final and final) where the idiosyncratic lexical content of the verb determines what conditions have to obtain in the pre- and final phase. Formally non-complex verbal expressions like *wrap* or *die* denote both, firstly, a series of actions or states associated with a previous phase (doing something to an object with some material, to be in a certain living state), and, secondly, indicate lexically which conditions must hold for the respective verbal predicate to be true in the final phase: in the first case, the object is wrapped, in the second case the person in question does not live any more. Verbs that, in addition to specify a pre-phase, lexically also designate the conditions necessary for the verbal action/state to end/finish in the final phase, are traditionally called telic verbs (Kabakčiev 2000: 199; Lieber 2004: 140ff; Mehlig 1981: 108-115; Ramchand 2008: 25, 27). Telic verbs are, in this perspective, defined by a very specific constellation of phasal meanings, as they encode, in the way illustrated above, not only the conditions that have to be met while somebody is wrapping something or dying, but also are characterised by a latent egressivity,\(^4\) indicating the circumstances that have to hold in order to regard the events as finished (although not indicating lexically whether the event’s final point actually is reached - this is usually discussed as a matter of aspect, see below under (IV)).

In the domain of type III, telic phases, a primarily egresive phasal meaning combines with the idiosyncratic verbal stem meaning in one and the same verbal lexeme, without necessarily signalling this semantic concatenating of two semantic units on the form side of the sign. This approach to phasal semantics is obviously related to the A-position of type (II) but not identical with it. While the A-position identifies the fixed phasal Aktionsart characteristics of different lexemes
(ingressives, egressives and continuatives), the lexemes of type III all constitute in a uniform way a pre-final and final phase and specify lexically which conditions have to be met in the phases in question. Telic phasal verbs do therefore not focus on one specific phase (as phasal Aktionsart predicates do), they always include the whole predicate interval, consisting both of the pre-final and final phases.

The type III-approach has its roots in the Anglo-American branch of formal semantics, exemplified, for example, by David Dowty (Dowty 1979; Dowty, Wall & Peters 1981) and the lexical decomposition movement (Lieber 2004: 5-10; Egg 1994: 14, 56). A continental analysis of telic phases is Ballmer & Brennenstuhl (1986), discussed in Engerer (2008a, 2008b).

The decompositional analysis of telic-phasal components in verb semantics and lexicon, as sketched here, can be considered, in spite of all differences mentioned, as typical for purely lexical, non-morphological theories of Aktionsart, and, by this, figure as the lexical counterpart to the position B-approach of type (II), where phasal semantics obligatorily is reflected in derivational morphology. Another point to be made is that the telic phase approach (III) can be regarded as universal because lexical telicity does not depend on language-specific morphology; phasality of type (II), particularly under the perspective of B, clearly rests on the language type in question. In analysing phasal meanings of type (II) and (III) it has to be kept in mind that, on the semantic level, morphologically induced egressivity and lexically encoded Aktionsart (telicity) often are intertwined and present at the same lexeme.

1.4 Type IV: aspectral phases
Fourthly, phasal meaning enters into the semantics of uttered sentences, determining whether the truth conditions characterise the event’s evaluation interval as including the end point or not. This perfective (endpoint included) /imperfective (endpoint not included) distinction is aspectual in nature, and the encoding of this distinction is largely dependent of the language type in question (Leiss 1992; see, for example, Andersson 1972; Janda 2003; Smith 1991; Verkuyl 1993). Utterance-based aspect (IV) and lexicon/morphology-basedAktionsart/telic phases (cf. II/III) interact, as, for telic expressions (III), the lexically induced presence of the conditions that have to be met in order to end/finish an event in its final phase facilitates an economic and natural marking of perfective aspect by asserting (implicating, presupposing) that the conditions assigned to the final interval are true. This is why telic verbs go natural with aspectual distinctions in many languages.

To conclude this section, I want to mention the question of the typological status of the four types. Two of them seem to constitute linguistic universals (perhaps type I and, more confidently, type III), others are clearly language-specific (type II and IV). But this statement rests alone on theoretical premises and has to be put to the test empirically. With this remark we have arrived at the next section that will explore the methodological aspects of phasal research in language typology.

2 Phasal research methodology in language typology

Empirical research in language typology and universals (cf. Raible 2001 as an overview) takes the step from one phasal verb system to phasal systems in general, which means to broaden the view from on one word class (verbs) to other word classes, as well as grammatical devices in general. This shift in focus has significant theoretical
consequences for the conceptualisation of the basic notion ‘phasal system’, as its
categorisation must, despite considerable formal variation in languages, retain a
constant set of features, keeping phasal systems comparable and identifiable across
languages and widely differing formal realisation patterns (cf. Rijkhoff 2008). This
typologically necessary defining feature of meaning of the concept ‘phasal system’ can
be referred to as the “intension” of the concept. In the intensional characterisation of
‘phasal system’, as developed in the next section, I will heavily draw on Simple Phase
Semantics, the basic obligatory, language-independent phasal verb feature.

The extensional characterisation of the phasal system concept, as opposed
to its intension, has to account for variation across languages in formally marking
phasal systems, demanding a sufficient broad and flexible notion of
‘grammatically/lexically realising a phasal system’. The characterisation of the
extensional side of phasal systems will amount to a typology of phasal systems,
intended to systematise the range of grammatical and lexical means, by which phasal
systems are structured. The parameters for this typology are taken from descriptive
grammar, for example the highest distinction in our typology will be constituted by
lexicalised vs. grammaticalised phasal systems, mirroring two principal strategies in
language to express meaning. Continuing the line of lexical phasal systems (lexical
typology in general, see Koch 2001; Goddard 2001 on universals), we can expect
variation regarding the word class, the phasal system primarily is realised in (verbal,
nominal, adverbial …), or whether the lexical items are morphologically related or not
(suppletive vs. non-suppletive), only for to mention a few examples. In the realm of
grammaticalised phasal systems, we certainly must distinguish the grammatical layers
where phasal systems are realised (for example intonation, tone, morphology, syntax or
word order) and, if there exist more than one grammaticalised phasal system in a language, how these systems interact.

The parameters and, consequently, the resulting phasal system types, are, at this stage of investigation, theoretical entities and must later, in the empirical investigation of language systems, prove their relevance and usability. The types will be as good as the hypotheses, they allow formulating. Constructing relevant hypotheses means, in typological research in general, to generate interesting, relevant, theoretically embedded and empirically testable hypotheses in relation to typologically different languages. In the next section I will derive from Simple Phase Semantics, the intensional base of phasal systems in language, a set of phasal features which can be reformulated into testable empirical hypotheses about the formal realisation of phases in languages (the extensional aspect). In the framework of this methodology, possible explanatory connections between Simple Phase Semantics and, on the one hand, more fixed, semantic-like features like Time Condition and Conceptual Completeness (all explained in detail later) can be formulated; on the other hand, it is possible to derive the clearly syntactic and language-specific features Restricted Categorical Selection and Participant Reconstruction from the intensional base of Simple Phase Semantics as well. I will elaborate on this subject in the following section. This kind of hypotheses can be subsumed as “Feature Relation Hypotheses”.

Another type of hypotheses is formulated to delimit the set of possible phasal systems to the set of the empirically realised. Explanations for such empirical restrictions can be found investigating the connection between realised phasal systems and the typological status of the languages in question. Hypotheses, relating phasal verb
systems to the overall typological design of languages, can be referred to as “Language Type Hypotheses”.

Last but not least, hypotheses regarding the interaction of specific phasal system types with other partial systems of language, in the first place time-related categories like tense, aspect and Aktionsart, have to be considered. This line of investigation will partially overlap with the above mentioned Language Type and Feature Relation Hypotheses, where the interaction of phasal features and language type comprises connections between phasal systems and variation of time-related categories as well. But, as the interaction of phasal systems with other time-related categories can be regarded as a particularly important field of research in the realm of this study, a separate group of hypotheses labelled “Time Categories Interaction Hypotheses” is established.

In the following, I will focus on one Feature Relation hypothesis and demonstrate in more concrete terms the method proposed there. Furthermore, I will limit myself on phasal verbs, the aforementioned type (I), which is, perhaps, the most basic and universal. As a starting point, I will present the intension of the phase concept, called Simple Phase Semantics, and then derive a few semantic and syntactic features from this intension. These features are then, dressed in testable hypotheses, subject to empirical scrutiny with help of secondary studies.

3 SPS – Simple Phase Semantics

The intensional base of phasal verbs is constituted by a simple and coherent semantics, with a minimalist set of basic logical tools (implication, presupposition, negation), and supplemented by rudimentary time and interval semantic entities (reference point,
possibly time intervals and a before-after-relation). The semantics of the three phases are then elegantly rendered by systematically exhausting the combination possibilities of the negation operator, connecting to the proposition denoted by the embedded constituent in implicated and presupposed statements. This concept of phasal semantics follows, at large, Givón’s idea of phasal verbs’ time-axis (cf. Givón 1973, 1972), bears elements from Partee & Bennett’s logical analysis of tense and aspect in English (Bennett & Partee 2004), and, on the whole, traces back to ancient reasoning on phasal verbs (Øhrstrøm & Hasle 1995: 52-64), as showed in Engerer (in press). Last but not least, it integrates elements from analyses of German in Fabricius-Hansen (1975), Ballmer & Brennenstuhl (1986), and further developments (see Engerer 2000a, 2002). A semantic solution like the one put forward in SPS allows in quite a simple way to differentiate between the three subgroups, and, at the same time, to preserve and mirror formally the intensional unity of the phasal verb category.

In order to demonstrate how SPS works I start with English verbal phrases VP, consisting of a finite phasal verb PV in the past tense, for instance began, and an infinitival complement C as, for example, to write. The general representation for the phasal VP can be written as follows:

\[
(1) \quad \text{VP} \rightarrow \text{PV} \; \text{C}
\]

To achieve a representation of sentences and a more informative format, a dummy symbol “X” is introduced at the subject position, and indexed brackets are added to mark constituent hierarchy:

\[
(2) \quad \text{S} \rightarrow \text{X} \; [\text{PV} \; \text{C}]_{\text{VP}}
\]
Now, let me introduce a simple sub-categorisation of the PV class into
ingressives (ingr), egressives (egr) and continuatives (cont):

(3a) \( PV_{\text{ing}} = \{ \text{began, started, ...} \} \)

(3b) \( PV_{\text{egr}} = \{ \text{finished, stopped, ...} \} \)

(3c) \( PV_{\text{cont}} = \{ \text{continued, resumed, ...} \} \)

We allow also projection of the phasal features ing, egr and cont upwards
to the higher constituents VP and S:

(4a) \( VP \rightarrow PV_{\text{ing/egr/cont}} C = \text{def} \ VP_{\text{ing/egr/cont}} \rightarrow PV C \)

(4b) \( S \rightarrow X \left[ PV C \right]_{VP_{\text{ing/egr/cont}}} = \text{def} \ S_{\text{ing/egr/cont}} \rightarrow X \left[ PV C \right]_{VP} \)

It is now possible to derive systematically variants without phasal verbs
from phasal sentences \( S_{\text{ing/egr/cont}} \) that are built according to the syntactical rules above.
The syntactical processes that are necessary to render the “normalised” version without
phasal verb (referred to as “kernel sentence”), for example

(5) He wrote

from phasal marked sentences like

(6) He began to write

- including the correct transfer from PV subject denotation (he in (6)) to
subject denotation in the kernel sentence (he in (5)) – are described in more detail in
Engerer (2010: 155). For convenience, I refer in the following to the kernel sentence
with “\( S_K \)”, and, accordingly, to its negative counterpart with “\( S_{-K} \)”. This will make the
formulation of the truth conditions very simple. The final ingredients for a complete
SPS are ordered points of time, with the central evaluation time $t_e$, its predecessor $t_{e-1}$ and its successor $t_{e+1}$. As can be seen, discrete time is assumed in the following approach.

(7) A sentence $S_{\text{ingr}}$ with an ingressive PV (for example *He started to prepare himself for the exam*) is true at $t_e$ when

(a) $S_{\text{ingr}}$ implicates the positive kernel sentence $S_K$ (‘He prepared himself for the exam’) at $t_{e+1}$; and

(b) $S_{\text{ingr}}$ presupposes the negative kernel sentence $S_{\text{-K}}$ (‘He did not prepare himself for the exam’) at $t_{e-1}$.

In a parallel way the other two PV classes are defined: Egressives show the inverted truth conditions ($S_{\text{-K}}$ is implicated at $t_{e+1}$, $S_K$ is presupposed at $t_{e-1}$) whereas continuatives both implicate and presuppose the positive kernel sentence $S_K$ (Engerer 2010: 155f).

Simple Phase Semantics is a definitional feature, constitutive for phasal verbs as a grammatical category in all languages. It is meant to be a solid guide and an important reference point when looking at the phasal verb systems of other languages in comparative and typological studies. SPS is, perhaps most importantly, the theoretical premise for the study of phasal meanings in their own right, without necessarily relating them to systematic formal correlates (here, verbs) or, even, without relating them to phonetic substance at all.

With regard to typological research in phasal verbs, the special status of continuatives shortly has to be addressed. There are a number of indications supporting the assumption that the phasal verb category does not form a group with equal
members, but that the ingressive and egressive as opposite poles on a phasal scale are grammatically more closely connected with each other than each of them with the continuative, inhabiting the mid-area of the scale. As well known, scholars in the middle Ages did not mention continuatives at all (Engerer in press), they only became an element of analysis in newer linguistic reasoning. The assumed special status of continuatives manifests itself

(i.) in Aktionsart-characteristics, as ingresses and egressives are represented generally by achievement verbs whereas continuatives are regarded as activities (see Dowty 1979: 68);

(ii.) by the logical property in SPS where continuatives evaluate the same, positive proposition before and after \( t_e \) and, therefore, do not, as the ingressive-egressive-group does, exploit the logical possibilities (cf. two negative propositions in the presupposition and the implication). Ingressives and egressives are, on the contrary, described by shifting values and a simple alternation of the negation in the propositions before and after \( t_e \) (represented by the alternation \( S_K/S_{K'} \)) - with the effect that different propositions have to be evaluated.

(iii.) Only continuatives show a systematic ambiguity between two interpretations, one with an interruption (resumptive) and one with a continuity component. The interruptive interpretation in *John continued to write* can be made explicit by a context like “when his headache grew better/he found his favourite pen”, whereas the continuing interpretation is triggered by a continuation like “although he almost couldn’t hold the pen”.
This ambiguity has already been acknowledged and described by Bennett & Partee (2004: 76f).

These three grammatical characteristics of continuatives are certainly connected to each other, for ex. property (i), activity Aktionsart, would seem to be founded in property (ii), as the evaluation of two identical subevents can be thought to promote an activity Aktionsart: If P is an activity and P(x) is true in interval i, then P(x) is also true in every partial interval of i (see Lohnstein 1996: 231). As property (iii), the ambiguity feature, also seems dependent of (ii), all this indicates, in general, that the special status of continuatives has to be grounded in property (ii), which then appears as the most fundamental and prominent feature of continuatives. This interesting line of reasoning cannot be followed in depth in this paper.

4 SPS and its derivates: some hypotheses on the typology of phasal verbs

Now, I want to discuss some possible candidates for a typology of phasal verbs, taking SPS as the intensional-definitional feature of the category as a starting point. In our terminology, the extension of the phasal concept, instantiated in SPS, is under investigation in this section.

4.1 The Conceptual Completeness Hypothesis CC

The closeness of the semantic apparatus in SPS and the exhausting and systematic use of the formal means, as described in the previous section, make the hypothesis plausible that phasal verbs fall into the above mentioned three logical groups as a maximum – and not more. This formulation claims indirectly that the foundational direction goes from SPS to the quantitative restriction on realisable sub-phases. But this is not necessarily so because SPS can, in reversing the foundational relation, be seen as the secondary.
formal-logical mirror of a more fundamental, more principal, conceptual restriction in the cognition of the inner temporal structure of events. Plungian (1999: 313) clearly makes this point saying:

At first glance, the phase is a mere indication of a particular part of the situation, namely its starting point, its middle, or its end. Since no situation has any other (logically possible) parts, the above list of three values must be complete. [My emphasis]

The three partial intervals which phasal verbs refer to, start, middle, and final interval, exhaust this interval and seem to be well-founded in cognition. There are obviously no languages in which, for example, the final interval-third is denoted. Start, middle and end seem to be basic categories and constitute as such a conceptual maximum. On the other hand, this does not necessarily exclude the existence of two-member phasal verb systems, grammaticalising, for instance, focus on start and final intervals. If such languages exist, the theoretically interesting question arises, whether an implicational hierarchy can be established cross-linguistically. One such implicational hypothesis could for example draw on the aforementioned special status of continuatives and assume that there are no languages with only continuatives, so that any language with continuatives will also have ingressives and/or egressives as well. As the hypothesis postulates that the above mentioned three phases exhaust the possibilities of phasal verbs to focus internally on interval-parts, this hypothesis is labelled the Conceptual Completeness Hypothesis:

(H1) CC Hypothesis
There are no languages lexicalising in phasal verbs more than the three phases ingressive, egressive and continuative.

The conceptual completeness of phases consisting of ingresses, egressives and continuatives is, with one exception (Plungian 1999, cited in first section), not explicitly mentioned in studies on phasal verbs. This is, perhaps, not surprising as these three phasal elements are considered as “natural” to that degree that this fact does not seem to deserve attention at all. The exhaustiveness of the three phases can be blurred by the multitude of phasal terms in use, particularly in Aktionsart research. However, a closer look reveals that in all cases an additional, non-phasal dimension of the primary phase is introduced. These secondary Aktionsart parameters are not the same for all phases; they are phase-specific and support the claim that beginning and end phase are associated with different cognitively salient dimensions. In connection with the initial phase (for a discussion of the ingressive see Nedjalkov 1987; Stutterheim & Klein 2002: 81), the secondary dimension of a sudden vs. a gradual start is typical, the latter often linked to a change of state (comp., for example, Lieber 2004: 32; a critique is Polenz 1968: 146). As emphasised already before, the terminology in Aktionsart notions is confusing. The sudden beginning of a situation is sometimes called the “ingressive” Aktionsart, contrasting with the “inchoative” referring to a gradual beginning (Bussmann 2002: 296, 306). But this is by no means common practice. The term “inceptive” as label for the initial phase can also be found (so for example in Bybee 1985: 147ff), or, more confusingly, inceptives and ingresses are both used for subgroups of begin-meanings (Mireckij, no year: 1).

Looking at the end phase, two dimensions seem to be relevant: One dimension which is frequently mentioned in relation to the final phase is related to the
question whether the end phase parallels a completion of the kernel event, presupposing, by this, a lexically given terminal point and a telic predicate. This dimension of the final phase is often called “completive”, mostly in typological research on auxiliary meaning (Heine 1993: 38, 43f, 45; Anderson 2000/2004: 814; Anderson 2005: 339, 369-372). But it has to be noted that telic verbs become completive not by solely indicating their end-point, but, more accurately, by the indication of having reached their end-point. The semantic fact of having reached an end-point is empirical and linked to utterances and, basically a matter of aspect, as was explained on the first pages. Completion is therefore no language systematic feature on equal terms with the final phase. On completive markers in several languages see Maisak (1999). The second dimension that has to be considered in relation to the final phase is the fact whether the event-end yields a result existing in the interval after the termination of the event or whether there is no such result. The so-called resultative Aktionsart is clearly a relevant dimension of the final phase, as newer research into verbal meaning suggests (for example Ramchand 2008: 39-42). When the ending of a situation does not yield a resultative state in the post-final phase, some authors talk about the “termination” of an event (for example Mireckij, no year: 3), but, unfortunately, not consequently, either (Chrakovskij 1987: 173; Leiss 1992: 20; Janda 2003: 270; Istratkova 2004: 303, 315; Tommola 1984a: 113).

With regard to the middle phase, the presuppositions related to the truth/falsehood of the kernel event at the point of time before the continuation are relevant and the difference between true presuppositions (pure continuation without interruption) and false ones (resumption, presupposing an interruption) are, in some languages like English, encoded in the difference between (pure) continuation and
resumption verbs (Freed 1979: 34; similar Brinton 1988: 78; Bennett & Partee 2004: 74, 77). Other languages, like German, are systematically ambiguous regarding this distinction. It is clear that this presuppositionally induced continuative reading does not affect the principal phasal property of continuatives (in the broad sense).

4.2 Time Condition Hypotheses TCon

The next feature of phasal verb semantics operates in the domain of sentence-semantic rules. Phasal verbs have the special selectional restriction that they impose time structure on all arguments in their syntactical environment (see also Engerer in press). This restriction holds for both infinitival (8a below) and nominal arguments (8b below), and is valid independent of syntactic position, also subjects have to deliver time structure to the phasal verb (8c below), as the following German examples illustrate (Engerer 2002: 57):

(8a) Peter [beginnt [eine Rede zu halten]]_

(8b) Peter [beginnt [die Rede]]_

(8c) [[Die Rede] beginnt]_

The “Time Condition”, as this feature will be referred to, is a semantic, phase specific subcategorising relationship between a phasal verb and its complements C (infinitival phrases, nominal objects and subjects, see the examples above), imposing a minimum of time structure on the items C, the phasal verb combines with (for the following see Engerer 2002: 57-59). “Good” input for phasal verbs are constituted by durative events, more specific activities which can both be non-telic (9a) and telic (9b). More restricted are states where one finds completely acceptable complements (9c) but also semantically deviating ones such in (9d) and (9e). In connection with punctual
complements, phasal verbs enforce a habitual or iterative reinterpretation, if the denoted event allows this (comp. 9f). This coercion-like process produces a kind of secondary durativity that suits the Time Condition of the phasal verb.

Non-time-structured entities in the subject position of a phasal verb require more elaborated reinterpretation/coercion processes. With regard to persons, very general knowledge or context based reconstruction strategies have to apply, in (9g) for example the elliptic utterance of “Peter beginnt” (‘Peter begins’) must interpolated by an appropriate verbal event (to talk, to laugh, ...). Last but not least, consider timeless things like schools with a complex hierarchy of sub-concepts like ‘SCHOOL AS INSTITUTION’, ‘SCHOOL BUILDING’ or ‘SCHOOL AS DAILY BUNDLE OF ACTIVITIES’, where the phasal verb selects the time-structures sub-concept, in our case preferably ‘SCHOOL AS DAILY BUNDLE OF ACTIVITIES’ (see 9h). The spatial sub-concept ‘SCHOOL BUILDING’ is acceptable as partner for a phasal verb as well, but this is mainly due to the well-attested reinterpretation of spatial concepts into temporal ones found in many other areas of grammar and cognition.

(9a) Peter beginnt [zu sprechen]C (‘Peter begins to talk’)

(9b) Peter beginnt [eine Sonate zu spielen]C (‘Peter begins to play a sonata’)

(9c) Peter beginnt [an Geister zu glauben]C (‘Peter begins believe in ghosts’)

(9d) Peter beginnt [krank zu sein]C (‘Peter begins to be ill’)

(9e) Peter beginnt [Deutsch zu können]C (‘Peter begins to can German’)

(9f) Peter beginnt [nach dem Hund zu treten]C (‘Peter begins spark after the dog’)

(9g) Peter beginnt [zu springen]C (‘Peter begins to jump’)

(9h) Peter beginnt [zu arbeiten]C (‘Peter begins to work’)

(9i) Peter beginnt [zu lachen]C (‘Peter begins to laugh’)

(9j) Peter beginnt [zu singen]C (‘Peter begins to sing’)

(9k) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9l) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9m) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9n) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9o) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9p) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9q) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9r) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9s) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9t) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9u) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9v) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9w) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9x) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9y) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9z) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9aa) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9ab) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9ac) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9ad) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9ae) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9af) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9ag) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9ah) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9ai) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9aj) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9ak) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9al) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9am) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9an) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9ao) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9ap) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9aq) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9ar) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9as) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9at) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9au) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9av) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9aw) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9ax) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9ay) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)

(9az) Peter beginnt [zu tanzen]C (‘Peter begins to dance’)
How is Time Condition founded in SPS? Or: How can it be derived from this feature? I will give some clues on these questions in the following and will then discuss which empirical hypotheses can be postulated on the background of the semantic demands of Time Condition features.

Time Condition is grounded in Simple Phase Semantics where phasal verb semantics, which is in essence pure time semantics, interacts with lexical complement propositions and other semantic arguments, mostly nominal objects, and requires external time-structured input on the sentence-semantic level. As shown in the truth conditions of the ingressive above, the evaluation of sentences with phasal verbs involves the same proposition (denoted by the same kernel sentence) evaluated for its truth and falsehood at the two related points of time $t_{e+1}$ and $t_{e-1}$ which are positioned on the same time axis and define the time interval where the act of beginning essentially takes place (similar reasoning can be put forward for the other phase meanings). The fact that one and the same proposition has to be evaluated on two related points of time leads to the conclusion that phasal verb semantics refers to intervals, a claim for which some empirical support can be found in Engerer (2010). This semantic interval property of phasal verbs is responsible for the durativity demand encoded in the Time Condition of phasal verbs: The durativity feature of embedded complements of phasal verbs, and, as a consequence, the durativity of the propositions phasal time semantics refer to, guarantee that the proposition can be evaluated relative to an interval, i.e. a coherent stretch of time consisting of more than one point of time (on intervals see, for example,
Cresswell 1985; Dowty 1977: 50-52). We can therefore conclude that Time Condition is logically well-founded in SPS, the intensional definition of phasal verbs.

I now turn to the question which empirical and testable hypotheses can be formulated on the basis of Time Condition. In the grammar of language, Time Condition is substantiated as a set of selectional restrictions originating in phasal verb semantics targeting their complements. The principal restriction is durativity, as already demonstrated above, with some more special restrictions, all derivable from the main restriction feature (iterativity, habitual interpretations ...). These grammar-like features, located at a rather concrete level of grammar, give rise to a set of at least four Time Condition Hypotheses:

(H2) Time Condition TCon Hypotheses:

(TCon1) The complements of phasal verbs are durative.

(TCon2) Among durative complements, phasal verbs best combine with activities, but, to a lesser degree, with states.

(TCon3) Punctual complements must be reinterpreted as secondary duratives via iteration or habitualisation. If this is not possible (*the bomb explodes), sentences with phasal verbs are ungrammatical/not interpretable (*The bomb begins to explode).

(TCon4) If nominal complements offer a set of conventionalised sub-concepts (as demonstrated above), the phasal verb selects by default the most time-involving one.

Alice Freed’s study *The Semantics of English Aspectual Complementation* (Freed 1979) is full of empirical material and descriptive observations directly
supporting some of the TCon Hypotheses above – with regard to English. Quite general, she writes, phasal verbs "[…] have a consistent semantic effect of a temporal nature [...]" on their complements (Freed 1979: 29, see also 54), resulting in temporal sequencing and internal temporal structuring of situations (duration, inception, completion). Phasal verbs are furthermore "[…] devices for referring not only to entire events or activities, but in addition, to isolated parts of some of these same events." (Freed 1979: 29) Only events which can temporally be segmented are good partners of phasal verbs.

In the context of (TCon1), for instance, Freed states that the complements of phasal verbs denote events occurring through time, i.e. not propositions or objects (Freed 1979: 25). (TCon2) is at stake when she points out that states do not co-occur with phasal verbs (Freed 1979: 40) as not being events and therefore not having temporal structure at all (Freed 1979: 50).

Both (TCon1) and (TCon2) hold in French, too, as phasal verbs in this language combine well with action verbs but do not take punctual and stative complements (the "stative constraint", comp. Lamiroy 1987: 279, 282). Lamiroy, after having observed that continuatives do not combine with punctual verbs as arriver (cf. TCon1), remarks that in Jean continue à arriver tous les jours en retard the continuative meaning disappears, and only the iterative meaning is possible (Lamiroy 1987: 285). This is a reinterpretation process in French according to (TCon3). The general principle at work here is “multiplexing”, meaning copying a single referent, a notion (according to Lamiroy 1987: 286) introduced by Talmy. Multiplexing can be applied both to nouns (for example pluralizing) and events (verbs). Multiplexing of the subject NP makes sentences with phasal verb plus punctual event acceptable, cf. Les invités continuent à arriver. The same pattern can be observed in phasal verb plus state
combinations: *Les grammaires scolaires/*Cette grammaire continue(nt) à consister en trois parties. Multiplexing the situation (via a multiplexed subject NP) makes phasal sentences with punctual complements acceptable. Quite clearly, repetition according to (TCon3) is involved, as multiplexing triggers a serialisation of identical events.

This can be generalised to phasal verbs combined with statives, see *Les ouvriers commencent à avoir des maisons*. "Although viewing the internal temporal constituency of the situation is not usually possible with stative verbs, multiplexing of the situation is." (Lamiroy 1987: 287) Multiplexing with object nouns is possible, too. Interestingly, the number must be indefinite in French: *Jean commence à avoir {beaucoup/un tas de/*cinq} voitures* (Lamiroy 1987: 287).

(TCon2) is attested for Greek, where states like 'to be pretty' cannot co-occur with phasal verbs either (Papakyriakou 2001: 262).

To conclude this section I want to indulge a bit more on (TCon4). In descriptive language studies, concept structure (on conceptual semantics see Jackendoff 1991a, 1991b; Jun 2006) and the principles governing the selection of specific concepts in specific syntactic-semantic contexts is not represented very well. Typologically more applicable seem approaches which work with an explicit hierarchy of entities linked to prototypical classes of linguistic expressions and devices, and at the same time exploring the procedures in order to shift from one entity type to another ("reinterpretation") (Mackenzie 2000/2004). Typically, phasal verbs trigger such shifts (cf. Engerer 2009: 23-26). If we adopt for the moment Mackenzie’s typology of four orders of entities, the first rule is that phasal verbs select entities of the 2\textsuperscript{nd} order (in the first place, events). This has the consequence that nouns denoting entities of a higher
order (3rd or 4th) are downgraded in interaction with phasal verbs, nouns on the 1st order, in contrast, obligatorily upgraded to the level 2. The German examples below illustrate this (Engerer 2009: 26):

(10a) Die erste Information beginnt um 14 Uhr und wird bei jeder vollen … ('The first information begins at 2 pm and …')

(10b) Er begann das Buch ('He began the book')

The noun Information (cf. 10a) denotes primarily an entity of the 3rd order (abstract entities like propositions, outside space and time, evaluation: truth/false), but also entities of the 2nd order (events, processes, states-of-affairs, evaluation: reality), and, peripherally, entities of the 1st order (physical objects, attributes: constant, located in time and space, observable, evaluation: existence). In the context of a phasal verb, regularly the 2nd order reinterpretation is triggered, as the example (10a) shows. In (10b) the reinterpretation goes upwards, from a primary 1st order entity to an entity of the 2nd order. All in all, these subtle reinterpretation processes are not explored very well, but the few studies available (Mackenzie 2000/2004; for instance Bierwisch 1983) make it plausible that phase triggered reinterpretation is a fundamental cognitive-semantic constraint and therefore not confined to the grammar of specific languages. (TCon4) hypothesis seems, for that reason, a universal restriction in language.

4.3 The Restricted Categorical Selection Hypothesis RCS

The next feature generalises the empirical observation that phasal verbs categorically do not seem to select sentential complements, but preferentially govern infinitive and nominal phrases (comp. Engerer 2000b). This “anti-sentence tendency” undoubtedly calls for an explanation, as sentence-like phrases, finite complement sentences and
infinitive (or gerundive) phrases as well, should, in accordance with the Time Condition (see above), be able to deliver the necessary durative time structure needed as the input of the phasal verb. In English, as in many other languages as well, phasal verbs categorically do not combine with finite sentential complements:

(11a) *Peter began (started, ...) that he read the book
(11b) *Peter stopped (finished, ...) that he read the book
(11c) *Peter continued (resumed, ...) that he read the book

Again, I will try to link this categorical selection pattern of phasal verbs to Simple Phase Semantics, although the explanation presented here will be much more tentative than my proposals before. As has been remarked by several linguists, the phasal verb group can be divided into factive, NEG-factive, positive-implicational and negative-implicational phasal verbs (Freed 1979: 145; Brinton 1988: 78f; particularly Givón 1972, 1973). The allocation of English phasal verbs in regard to these four categories is as follows (Engerer in press):

[INSERT TABLE ABOUT HERE]

**Table.** Phasal verbs sub-classified in terms of implication, presupposition and time

What this table shows is that identical negational constellations at prior and subsequent time only are realised for the continuative, whereas negation both at prior and subsequent time are not attested. Taking in consideration that also the continuative has a reading with changing negations (the interruptive, comp. a previous section), one can, very cautiously, assume that the semantics of phasal verbs is characterised by negational contrast at two points of time. This property would make
that-sentences unfit for phasal complementation as finite sentential complements undergo a truth evaluation of their own (for example, *He told me that it rained yesterday evening*) – and often come with fixed truth values, as the aforementioned factive predicates do (for example, *He regrets that it rained yesterday evening*). The categorical selection of truth value neutral expressions in a language (infinitives, gerunds, nouns) by phasal verbs can, perhaps, be interpreted as a reflex of keeping the phasal semantic apparatus, generally operating with contrasting truth values in regard with identical propositions, free from fixed or independent truth evaluation procedures.

In general, it seems that the pattern of categorical selection of phasal verbs (particularly nouns vs. infinitives) follows semantic principles and constitutes a kind of division of labour in some languages. Compare, for example, the *finish*-like, completive-egressive group in German (*beenden, abschliessen*) which excludes infinitive complements, with the only German non-completive egressive verb, *aufhören* (cf. English *stop*), which excludes nominal arguments. If it can be shown that categorical selection mirrors phase semantic subgroups (nominal complementation = completive egressive, infinitival complementation = egressive without a completive signal), this would strongly support the view that categorical selection of phasal verbs is indeed a necessary feature already embodied in SPS.

The feature of Restricted Categorical Selection RCS appears in grammar as subcategorisational relations induced by phasal verbs and subsumes the above mentioned selectional restrictions, coding, perhaps most importantly, the, on the first view surprising, reluctance of phasal verbs to combine with (finite) sentences. We can now, very tentatively, formulate a hypothesis, based on RCS:
(H3) Restricted Categorical Selection RCS hypothesis

Phasal verbs do not subcategorise finite sentential complements.

Empirically, in the languages I am familiar with, (finite) sentence complements of phasal verbs are not permitted. This subcategorisation rule applies for instance in German (Engerer 2000b), Danish (Engerer 2007: 93), English (Newmeyer 1975: 18; Freed 1979: 43) and Russian. Greek seems to be a special case as in this language phasal verb complements are introduced by a subjunctive particle (\(na\)), embedding a finite subjunctive structure (Papakyriakou 2001: 250f). However, it has to be noted that Greek has lost the infinitive and the embedded verb, though marked for person and number, Greek is defective with regard to the time-related inflectional categories tense and aspect (Papakyriakou 2001: 251). The subjunctive mood in Greek \(na\)-phrases expresses the non-factual irrealis (Papakyriakou 2001: 253), what places phasal phrases close to the abovementioned tendency to evade truth functional relevant sentential coding of phasal complements (what is connected to the RCS hypothesis).

The typical referent reconstruction in subjectless infinitive complements (see PR below) is present in Greek, too (Papakyriakou 2001: 257), another argument for that in spite of the finite features in Greek subjunctive complements, an underlying quasi-infinite structure can be posited. It is therefore reasonable to analyse phasal verb plus complement verb as one complex predicate, as Papakyriakou (2001: 275) suggests. But this question must be postponed to future research.

4.4 Participant Reconstruction Hypotheses PR

The fourth and last derived feature is labelled “Participant Reconstruction”, PR. Phasal verbs take, as all regular finite verbs, a syntactic subject, but, as we know from default
role assignment, the subject participant does not enter into the argument structure of the phasal verb. This property is clearly based in Simple Phase Semantics SPS where phasal verbs do not constitute events with participants in their own right, but only denote simple time relations between propositions which are, with regard to their inner compositional event structure, in principle independent of phasal verb semantics. As a consequence of the theta-criterion (see for example Williams 1995), which says that all arguments have to be assigned a role, the subject participant of the phasal verb gets its role from the embedded structure. It is in these propositions, denoted by the phaseless kernel sentences, where the matrix subject of the phasal sentence is equipped with a proper role in the complement event.

The literature on phasal verbs does not agree on the question whether phasal verbs have to be analysed as raising or control verbs (on control and raising in general see Dubinsky & Davies 2006; Postal 1974 on raising). Following the semantic characterisation above, phasal verbs should be analysed as raising verbs as they do not assign any thematic restrictions on their subjects. And, indeed, many linguists maintain this position (Newmeyer 1975: 30; García 1967; Postal 1974: 13-20; Rezac 2005: 109). Advocates of the control analysis (Egg 2003: 163; Perlmutter 1970; Palmer 1987: 178) focus on phasal sentences with animate subjects, particularly in transitive uses with nominal object (Perlmutter 1970: 113):

(12) Sam began the job

Here, as is assumed, the matrix subject is selectionally restricted by the phasal verb, assigning an agens role to Sam. However, later research has shown that this analysis cannot be correct, what considerably weakened the control hypothesis in regard
to phasal constructions. A rather systematic feature for phasal verbs is that the theta-criterion applies in transitive phasal verb constructions with nominal complements as well, cf. Perlmutter’s *Sam began the job* or the German example

(13) Peter beginnt ein Buch (‘Peter begins a book’)

Here, the phasal verb subject argument, *Peter*, clearly gets assigned a role by a reconstructed event, where the syntactic object participant (book) together with the phasal verb subject participant (the individual Peter) are explicitly realised in linguistic structure, whereas the relational verb (meaning) is implicit and must be interpolated (reading, writing, colouring perhaps?), according to the interpreter’s general knowledge of things and relations in the world and his actual picture of the communication situation. In a similar way, it is not quite accurate to state that, i.e., in *begin a speech*, the subject of the phasal verb must be capable of beginning (Rezac 2005: 109) – what would lead to a control analysis – more adequate would be to say that the phasal subject denotate has to be apt to participate in a reconstructed situation where it enters in an object relation to a speech, licensing situations predicated by verbs like *hold, deliver* ...

It is this reconstructed verbal predicate that selectionally restricts the subject.

These reconstruction processes can be completely controlled by the grammatical circumstances in the sentence, for example, if the embedded noun of the phasal verb is a transparent derivation from an intransitive verb:

(14) Peter beginnt einen Streit (‘Peter begins a row’)

In this case the embedded event must be constituted by the morphologically related verb, German *streiten* (‘to row, argue’) from *Streit* (‘row, argument’), a substantive. The subject participant of the phasal verb is the first
argument in this reconstructed event representation, namely Peter streitet. The most original explanation is found in Newmeyer (1975: 43f), discussed in Engerer (2012). Leaving out the details, we can state the fact that transitive uses of phasal verbs are subject to the theta-criterion as well and, by this, support a raising analysis of phasal verbs, found in other phasal constructions as well.

I cannot here settle this issue – raising or control? – doubtlessly, a much more thorough, and space-demanding, discussion would be necessary for this. For the time being, it seems reasonable to assume that phasal verbs both have raising and control properties, the former arising, in the first place, with inanimate subjects, the latter with animate subjects (the "mixed property theory", see Lamiroy 1987: 278, 281).

Properties of phasal verbs related to raising/control and other reconstruction processes are subsumed under the feature Participant Reconstruction – PR. Again, I make the assumption that syntactic and semantic raising/control and Participant Reconstruction in general is rooted in SPS, which forms the cognitive basis for the poor event semantics of phasal verbs – the reason why phasal verbs cannot constitute events on their own, and, as a consequence, do not mark participants thematically. Participant Reconstruction must, at the same time, be subject to language-specific variation (its extension), as languages differ in their marking techniques in regard to syntactic relations and roles, and, for example, subject prominence. However, the analytical (and theory-loaded) dissent on raising and control makes it difficult to put forward realistic and, at the same time, concrete and testable hypotheses. The following is therefore an attempt to focus on some recurrent features of phasal PR in the literature on this subject – ignoring disagreement in detail:
(H4) Participant Reconstruction PR Hypotheses

(PR1) Phasal verbs do not mark their subjects thematically.

(PR2) In infinitive complements, there is reference identity between the subject of the phasal verb and the unrealised logical subject of the complement phrase.

(PR3) Nominal complements trigger a reconstruction process resulting in a reconstructed event which thematically marks the subject.

As already mentioned, fulfils Greek (PR2) (Papakyriakou 2001: 257), and English and German follow (PR3), a principle which indeed was developed on the example of these languages (Newmeyer 1975: 42-44; Engerer 2001: 12). (PR1) is still the most uncertain candidate as the entire problem complex around control/raising is hooked up to this hypothesis – and, the connections between phasal construction type (infinitive complement, transitive, intransitive), semantic characterisation of the subject referent (animate/inanimate, nouns with “time structure” ...) and thematic subject marking (causative, intentional ...) are not entangled to a sufficient degree. Therefore (PR1) is placed between brackets in the scheme above.

5 Conclusions

Unlike tense, aspect and Aktionsart, phases did not enjoy big attention in typology research and studies in grammar. However, it seems that phasal sub-concepts like ‘begin’, ‘end’ and ‘continue’ indeed are recurrent features in the languages of the world and appear on different layers of the grammatical architecture of specific languages as well. As I have shown, phasal components are found on different grammatical levels as the lexicon, morphology, word formation and syntax, and they are crucially involved in
forming temporal concepts like Aktionsart, telicity and aspect. Phase as a typological notion is quite straightforward to handle as the defining properties of phases, SPS – the Simple Phase Semantics, indeed are “simple” and general, but sufficiently concrete to form the basis for grammatical hypotheses on the realisation of phasal meanings in language.

The project of investigating phases in language, grammar and semantics has just begun, and this study has demonstrated that we particularly miss empirical material and studies on the four complexes of hypotheses (H1-H4) presented here. There are also theoretical challenges which have become evident in the discussion of the four features. With regard to Conceptual Completeness, for example, the view, applied here, on the linguistic aspects of CC should be supplemented with an investigation of psychological insights into the cognition of events. This perspective could give decisive clues to the question why humans pick our precisely these three phases – and not more.

Notes
1. No descriptive grammars of the more unknown languages have been systematically consulted (but see, for example, Buchholz & Fiedler 1987 on Albanian).

2. Languages studied are here, for instance, Bulgarian (Istratkova 2004), Slovenian (Zaucer 2005), and, of course, Russian (for example Janda 2003: 270; Tommola 1984b; Kaneko 2005).

3. See, for example, Flämig (1965), referred to in François (1985: 232).

Grammars of German with a similar view on Aktionsart are the East German

4. It is interesting to note, that the corresponding notion of ingressivity, that is a lexically encoded starting point of a verbal action/state, does not constitute a lexical class in the languages of the world like the egressive telic expressions do; this has possibly to do with some principles of ontological naturalness saying that every event must have an intrinsic starting point – but no intrinsic end point.

5. An alternative systematic of phasal systems could be construed along other, more established semantic categories as for example causatives, mentioned by Dowty (1979: 91), where lexical (for example kill), derived (for example randomise) and periphrastic causatives (for example make him leave) can be distinguished. Parallel distinctions could be drawn with phasal systems.

6. The possibilities are, in reality, not fully exhausted, the combination “IMPL(-p) and PRESUPP(-p)” (‘non-p is both implicated and presupposed’) is not lexicalised in the languages I know (see also the empty cell in our figure on Givón’s classification of A/M verbs). This formula would be equivalent to a description of an event e where one would not have done p before a moment in time t, and neither after t. Such an event e seems not conceptually salient, but, ontologically, not impossible.

7. The following is largely based on the newest version of SPS as developed in Engerer (2010). See also Engerer (in press).

8. In the case of atelic and stative expressions, completive markers point at the emergence (initial state) of a situation. The combination with punctual verbs indicates solely the realisation of the situation. Maisak calls this the "twofold nature of
completive markers" (Maisak 1999: 12). The semantics of the completion marker is clearly dependent on the inherent Aktionsart of the basis verb. A telic situation is complete when the final point is achieved; a homogenous activity/state, however, can already be regarded as complete when the activity/state has started.

9. Givón characterises the two groups as “standard continuatives” (+,+)) and “non-standard continuatives” lexicalised in resumel/repeat, allowing for interruption (Givón 1973: 898). Newmeyer puts it this way: Continuatives "[…] assert occurrence after the temporal reference point, where occurrence before that point is normally presupposed." But resume is special as it "[…] asserts occurrence after presupposed non-occurrence, which was itself preceded by a presupposed occurrence." (Newmeyer 1975: 25) Continuatives can be ambiguous in another way, too, as Lamiroy (1987: 284) remarks in connection with French. Jean continue à chanter cette chanson can indicate the singing of the song without interruption, or the singing of the same song repeatedly. "[…] continuative expressions may indicate that a situation goes on in either a continuous or a discontinuous fashion." (Lamiroy 1987: 284)

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