Aspectual concepts across languages: Some considerations for second language learning

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Abstract

In this paper, we focus on some terminological issues concerning the notion of aspect. We address the notions of grammatical aspect vs. Aktionsart, perfectivity vs. telicity, and imperfectivity vs. progressivity. We observe that these terms are often mixed up in the literature, which leads to some fundamental misconceptions in the theoretical description of different aspectual systems as well as in L1 and L2 acquisition studies. The descriptive approach we follow is strictly empirical and based on spoken production data. For our cross-linguistic comparisons, we draw upon data from native speakers of Czech, English, Dutch, German, and Russian. The theoretical framework of the paper is based on the idea that aspectual markers are not merely grammatical categories with a particular function, but more importantly they denote underlying cognitive concepts. These grammaticalized concepts determine native speakers' preferences in event construal, are language-specific (L1-based), and play a decisive role in second language learning. In order to deal with the difficulties arising in L2 learning, it is crucial to attempt to avoid terminological confusion. We think that this can be achieved by adopting a more conceptual and empirical approach to the analysis of aspect.

1 Introduction

In this paper we will attempt to show and discuss some of the complexities in terminology that regularly come up in theoretical analyses of aspect in cross-linguistic research. Examples of terms that are often confused and that we focus on are grammatical aspect vs. Aktionsart, telic vs. perfective, and imperfective vs. progressive. In our view, this terminological confusion often leads to crucial misconceptions with regard to the functional description of aspectual systems, the

way in which L2 acquisition of aspect is viewed, and also how it is taught in schools and language courses. Obviously, our research is especially relevant for the first part of pedagogical grammar, which is that of descriptive adequacy (see Ruiz de Mendoza in this volume), but not for its final part, which is that of providing improved teaching methods. We can merely present a number of relevant linguistic issues and descriptions that we believe should be taken into account by applied linguists writing pedagogical grammars.

Disregarding the discussion on the Critical Period hypothesis, one can state that from a learning point of view it seems nearly impossible for advanced learners to have full command of the aspectual distinctions in the target language (e.g. Schmiedtová 2004; Slabakova 2005; v. Stutterheim and Carroll 2006). Equally challenging appears to be the task of learning to express temporal relations in non-aspect languages (for example German) by native speakers of aspect-dominant languages (such as Czech or Russian). This is particularly evident in learners' ways of structuring information in narratives (e.g. Schmiedtová and Sahonenko in press; Carroll et al. in press).

The difficulties that second language learners of all proficiency levels face when dealing with aspectual relations in the L2 arise partly because of the high complexity and prominence of the aspectual systems as such and the differences between the L1 and the L2 systems. But perhaps they also occur because traditional analyses (e.g. Comrie 1976; Dahl 1985; Smith 1997) of the aspectual categories do not provide the necessary guidelines for teachers to formulate instructions that would make the acquisition of aspect more systematic and thus successful. Learners have to gain competence not only in connecting the form and the corresponding meaning(s), but also in making that connection on the basis of usage principles in discourse. These kinds of competence have to be coherently integrated within the learning process, which is a difficult task for both teachers and learners.

Our approach to investigating aspectual systems and their use in discourse is entirely empirical. We base our claims and conclusions on spoken data produced by native speakers and learners. Our framework reflects actual native speaker preferences[1] for using aspectual markers in a particular language and, in addition, it describes the internal organization of the respective aspectual system. In line with the current trend in cognitive linguistics, we assume that aspectual categories do not merely depict grammatical features, but that they also mirror conceptual structures and hence have psycholinguistic reality. The aim of this paper is to sketch some of the existing problems, increase awareness of them, and stimulate a discussion. We will address several terminological issues by introducing an empirically based approach to the classification of grammatical aspect providing examples from L1 as well as L2 data. Our material includes data from Czech, Dutch, German and Russian native speakers as well as from Russian and Czech learners of German.

The structure of the present paper is as follows: in the next section we will discuss a number of terminological fallacies, then show some empirical data in order to

support our claims concerning *grammatical aspect*, and finally draw our conclusions with a couple of remarks regarding second language learning.

2   Aspect terminology

2.1   Grammatical aspect and lexical aspect (Aktionsart)

One of the frequently occurring problems in the literature on aspect is the lack of uniformity concerning the theoretical notion of aspect. We distinguish between two categories: grammatical aspect and Aktionsart[2]. The former aspect is a purely grammatical category marked by inflectional morphology (e.g. affixes in Slavic languages, the *be V–ing* form in English). In our approach, grammatical aspect (i.e. in general the morphosyntactic marking of aspectual categories) denotes grammatically encoded concepts. We agree with Klein (1994: 30) when he says that: "... the convential ways of characterizing [grammatical] aspect, whilst intuitively often appealing, are [apparently] not very satisfactory: they have much more the status of metaphorical descriptions than of precise and clear definitions". These conventional ways include the terms '*viewpoints*', '*viewing a situation from the outside or the inside*', '*situation is seen as completed/non-completed*'. We do not adhere to the convential view that grammatical aspect is a way of seeing situations, which involves lexico-semantic as well as grammatical elements, because this view does not provide a suitable theoretical framework for analyzing empirical data in cross-linguistic context.

Aktionsart, by contrast, is a semantic category that expresses temporal characteristics of verb meanings and meanings of verbal predicates (lexical content). Several Aktionsart classifications have been proposed (e.g. Vendler 1967; Smith 1997) but none of them are unproblematic. In our framework, we apply Klein's classification from 1994. It is based on the *Topic Time* (TT) notion: Topic Time (TT) is the time for which a particular assertion is made. For example, in *She was ill*, the TT precedes the time of utterance (TT<TU) and thus holds true for a time interval in the past, for which <a person be ill> applies.

According to Klein, Aktionsart expresses lexical contents and hence has no direct connection to the time axis (1994: 99). The linkage to the time axis is established through *Topic Time*. Depending on the number of *Topic Times* that are contrasted in a clause, Klein distinguishes three different types of verbs/verbal predicates:

- zero-states (no TT-contrast, e.g. *The book is in Russian* – no matter what TT this clause is linked to, the assertion will hold true for **any** other TT);

- one-states (one TT-contrast, e.g. *He was in Berlin* – this assertion holds true for **one** contrast between <not be in Berlin> vs. <be in Berlin>);

- two-states (two TT-contrasts, e.g. *She opened the window* – this assertion holds true for **two** different contrasts <to be closed> vs. <to open>, <to open> vs. <to be open>).

Despite the fact that Klein's framework does not make an explicit difference between Vendler's accomplishment and achievement, we prefer to use Klein's classification because *Topic Time* is a well-defined and transparent notion, which is applicable to numerous languages other than English. In any case, the notion of Aktionsart is less important for our research since our main focus is on aspect.

Usually, the notion of aspect comprises grammatical aspect as well as Aktionsart (an exception to this trend is Bertinetto and Delfitto 2000). In line with this misconception, some researchers assume that the acquisition of grammatical aspect is always guided by learners' knowledge of semantic features encoded on the verb (Aktionsart). In other words, it is believed that grammatical aspect is not acquired independently, but must be accompanied or even preceded by knowledge of Aktionsart. Hence, both categories are usually described and analyzed as a whole.

The original proposal goes back to Andersen and Shirai's *Aspect Hypothesis* (also called *Primacy of Aspect Hypothesis*, *Prototype Hypothesis*, *Aspect before Tense Hypothesis*) from 1994, on the basis of which they accounted for different types of acquisitional data as well as Pidgin and Creole languages. Interestingly this hypothesis seems to be tenable for numerous L1 and L2 varieties; it has stimulated a lot of research related to aspect (for example, Li and Shirai 2000; Stoll 2005; Johnson and Fey 2006) and has been useful for stating initial research hypotheses in the study of child language. It is important to realize, however, that the correlation between lexical and grammatical features, be it aspect or tense, as can be observed in first language acquisition, does not necessarily play a role in the description of the underlying linguistic system. Researchers following the *Aspect Hypothesis* have failed to adequately differentiate between lexical and grammatical elements, which has led to a mix-up between semantics and the grammatical categories of aspect and tense. For example early occurrence of accomplishment/achievement verbs with past tense marker *–ed* in L1 English is considered to represent the child's knowledge of perfectivity. This influential hypothesis does not address the core issue of how to keep the notion of grammatical aspect and Aktionsart apart, nor does it provide a systematic description of these categories. We think that a suitable description of an underlying aspectual system is a necessary prerequisite not only for our general understanding of aspect and its acquisition, but also for developing appropriate teaching methods.

Another shortcoming of the *Aspect Hypothesis* is that it formulates acquisitional patterns for aspectual notions in contrast (i.e. the order of acquisition of perfective vs. imperfective markers). When concentrating on English, which has only one grammaticalized aspectual marker (the suffix *–ing*), it may indeed make sense to set up an opposition between a verb marked for ongoingness (i.e. progressivity – *I*

am sleeping) and a verb inflected for past tense (*He slept all day yesterday*), and label the latter as perfective. This seems to work because the 'perfective meaning' (completion) arises here through the past tense morphology. However, note that simple past in English is an aspectually *unmarked* form that is open to +/- perfective interpretation. Thus, the verbal form in *He slept* is not inherently perfective, but receives its 'perfective meaning' (completion) merely by pragmatic knowledge. It could very well be the case that the person who slept yesterday is in fact at the moment of speech *still sleeping*. This information is simply not part of the temporal semantics of this utterance, and it is also not grammatically encoded (this misconception is present e.g. in Slabakova and Montrul 2002). In some other cases, the pragmatic information is accompanied by lexical features of the verb as in *She broke my arm* or of the verbal predicate as in *He ate up his sandwich*. In these examples, the verbs including their arguments inherently express a change of state, which makes the 'perfective' reading possible (aided by the past tense morphology). But again, the verbs are **not marked** for perfectivity by means of aspectual inflectional morphology.

Simple forms in English, whether in past or present tense, are with regard to grammatical aspect open (neutral or unspecified). Since these forms lack the ongoing marker altogether they can be called 'non-progressive', but they do not express any aspectual meaning that is contrastive to progressivity. Simple forms in the present tense in English have many different meanings, but most of these meanings arise through the linguistic context (e.g. through the addition of adverbial phrases) or a specific speech act (e.g. an informative act). These meanings are conveyed by lexical and not grammatical features, and therefore the several different meanings that English simple forms can have - habitual, scientific present, etc. – do not represent an aspectual opposition to the progressive aspect. As will be explained below (see Section 2.2.) the most prominent meaning – habituality – arises only in specific contexts and is, as we hypothesize, the result of the grammaticalization process of the progressive marker. By grammaticalization we mean the process in which grammatical morphemes gradually develop out of lexical constructions and become more and more used as fully-fledged constructions in an ever-expanding range of contexts. These grammatical constructions are becoming part of the core grammar of a language (cf. Bybee et al. 1994). For English it is true that in certain contexts the simple form can convey 'a holistic viewpoint', for example in *He reaches the finish*. Note, however, that this meaning, in contrast to the meaning of the *–ing* form, are not grammaticalized and belong to the lexico-semantic and not the grammatical area.

   All this is very different from languages that use two grammaticalized aspectual markers whose meanings are truly contrastive. All Slavic languages, for example, can express both meanings – perfective and imperfective – grammatically on the verb. Although these systems do not apply to all verbs and there are some exceptions to the rule, we see a fundamental difference between the Czech/Russian and the English systems. There is an opposition between two different aspectual

categories – perfective vs. imperfective – in Slavic languages, neither of which is expressed by past tense marking, whereas no such grammatical opposition exists in English (only the progressive is grammaticalized in English).

We believe that this mix-up has been dominating and partially misguiding the overall discussion about aspect typology and acquisition (see for example, general aspect analysis: Verkuyl 1993; Smith 1997; acquisition: Stoll 1998; Wagner 2006). An exception to this trend is Slabakova's review of recent research on the acquisition of aspect (2002). Slabakova (2002: 176) points out that many studies have blended three different temporal contrasts, that is past vs. present tense, perfective vs. imperfective grammatical aspect, and Aktionsart distinctions.

In fact, we would say that fully grammaticalized grammatical notions (e.g. grammatical aspect) **only** interact (but do not merge) with other temporal categories, such as tense, adverbials, or Aktionsart. To a large extent the English progressive marker –*ing* is the ideal example of such a fully grammaticalized and independent grammatical category. Adopting our view makes it possible to tear apart grammatical aspect, Aktionsart, and tense and it would possibly improve teaching methodologies because teachers would be able to explain these categories in a more systematic and independent way.

2.2   Telicity vs. perfectivity

Another problem we would like to tackle is the confusion between the terms *telic* and *perfective*. Similar to the issues discussed above, this problem too is related to an inaccurate differentiation between Aktionsart and grammatical aspect. In our view, the notion of *telicity* belongs to the domain of lexical features inherent in the verb/verbal predicate while *perfectivity* is a grammatical category. We define telic verbs or telic verbal predicates as expressing an inherent endpoint, which must not necessarily be realized in a situation (e.g. to *fall*, *to write a paper*). It is in principle plausible to assume that all languages have verbs expressing +/- telicity. However, only a number of aspect-prominent languages can convey +/- perfectivity grammatically. In other words, although the two terms are closely related in meaning and can interact with each other at the level of expression, they involve two different layers of linguistic analysis and are hence not synonymous. To illustrate this difference let us consider the following examples from English and Czech.

(1)   *He ate an apple*

In example (1) the verb *to eat* is a one state verb denoting only one change of state (Klein 1994) and for the sake of argument we assume that together with the indefinite object *an apple* it forms a telic predicate. The same utterance in Czech is presented in example (2).

(2)   *(On)*   **S**-*něd-l*   *jablko*
              He-Nom Perf-eat-Past-3sg apple-Acc
              'He ate (an) apple'

In Czech the verb *jíst* 'to eat' is also a one state verb, but unlike in English, in the example above it occurs as a perfective, marked grammatically by the prefix *s-*. As in English, we are dealing here with a telic predicate – *to eat an apple*, but the verb is overtly marked as perfective. So the Czech utterance involves two different features: telicity on the predicate plus the perfective aspect inflected on the verb. Only the first feature is present in the English example. As discussed briefly above, we can see that telicity and perfectivity involve two different operations, yet, in these examples they result in a comparable semantic structure: having reached the right boundary of the situation, i.e. the endpoint of the situation.

  In spite of this parallelism if we change the tense of the English verb from past to present we observe a shift from (-) aspect to (+) aspect. More precisely, from (-) progressive to (+) progressive as in example (3).

(3)   *He is eating an apple*

If the aspect is not changed from (-) to (+) progressive, as in (4), the meaning of the utterance becomes problematic.

(4)   *?He eats an apple*

In (4) the tense change makes the utterance ill formed in contexts of **ongoing situations** because of the conflict between the presence of an object and the simple present. Normally this combination renders a **habitual** reading, but then further temporal specification (e.g. *He eats an apple every day*) or a particular context conveying the habituality (e.g. *What does your diabetic friend do when he suffers a hypo?*) is required. It is true that English simple forms often denote habituality, but we strongly believe that this is merely a consequence of the grammaticalization of the *-ing* form[3]. In itself, the simple form does not convey habitual meaning grammatically. This can be seen in example (4), where habitual meaning only arises when specific habitual contexts are provided, i.e. either lexical devices (temporal adverbials) or context.

   Another option for making (4) grammatical is to change the simple verb form into the progressive: *He is eating an apple*, as in (3). That means that in English a change in tense goes hand in hand with a change in aspectual value: The addition of the *–ing* suffix (or a temporal adverbial) is obligatory in a context of ongoingness in the present tense.

   What is relevant here is that despite the change in aspect, the *telicity* of the English predicate remains unaffected. The Czech example in (5) demonstrates that

a shift in tense does **not** influence the aspectual value, nor the telicity of the utterance.

(5)   *(On)   S-ní   jablko*
      He-Nom Perf-eat-Present-3sg apple-Acc
      'He eats (an) apple (up)'

The interpretation of example (5) is that the situation *to eat an apple* in Czech is presented as inevitably reaching its endpoint in a very near future. This is very unlike the English predicate, which is telic (a semantic category), but by no means perfective (a grammatical category). In other words, by using a perfective prefix a Czech language user conceptualizes and presents the situation depicted in (5) as perfective. In principle, the Czech aspectual system allows the expression of perfectivity in the present tense[4], which is not possible for English. As shown in (3) and (4), it is compulsory in English to use the progressive in here-and-now contexts. This shows that only the progressive aspect has been grammaticalized in English.

In Czech, on the other hand, verbs must be marked either for perfectivity or imperfectivity in all tenses. This is because both aspects have been grammaticalized. The English aspectual system, by contrast, does not contain a systematic opposition between two different grammatical aspects: the "perfective" interpretation of verbal predicates such as *to eat up* is not brought about grammatically (perfectivity) but it is conveyed lexically by the particle *up* (telicity). In this sense, perfectivity does not equal telicity.

It leads to fundamental problems when the unspecified simple form in the context of telic verbs/verbal predicates is put in opposition to the aspectually marked progressive form. As we will show in more detail below (Section 2.4), Slavic languages have both poles of this aspectual contrast at their disposal and thus represent a completely different system with not only different forms, but also with different underlying concepts. With respect to learning, the difficulty arises when teachers draw parallels between a marked perfective and the English simple form: these are basically false friends.

2.3   Imperfectivity

The last terms we would like to attend to in Section 2 are the notions of imperfectivity and perfectivity. We will first address the former category. Slavic languages use simplex forms to express imperfectivity (e.g. in Czech *psát* – 'to write') to express imperfectivity apart from the marked imperfective, the so-called secondary imperfective. The secondary imperfective is marked by inflectional morphology, that is, in Czech the suffix -(*o*)*va*-, and in Russian the suffixes -*iva*-/-*yva*-, -*va*-, -*a*-/-*ja*- (e.g. in Czech/Russian *vypis-**ova**-t/ vy-pis-**yva**-t'* – 'to be in the

process of writing out'.). There is also a small group of frequently used simplex verbs denoting perfectivity without an explicit morphological marker (e.g. Czech *dát* - 'to give'). Because these verbal forms lack any overt grammatical marking of their aspectual value, a question arises. Does their aspectual meaning come from the inherent verbal semantics (Aktionsart) or is it rooted in the grammar (grammatical aspect)? Despite this serious terminological problem, which has not yet been thoroughly investigated[5], we hypothesize that Slavic simplex forms differ from those in English, German, or Dutch. A possible justification for this line of thinking is the following. Usually, adding a prefix[6] to a Czech **simplex imperfective** verb results in changing the aspectual features into the perfective, as in example (6).

(6) Prefixation of the simplex imperfective form

Czech	*pít*	→	*VY- pít*
	IMPF-simplex		PERFdrink
English	'to drink' →		'to PERFdrink' ≈ 'to drink up'

The situation is different when dealing with **simplex perfective** verbs (7).

(7) Prefixation of the simplex perfective form

Czech	*dát* →	*U-dat*
	PERF-simplex	PREF-PERFgive
English	'to give' →	'to report'

In example (7), the prefix *u-* only changes the meaning of the verb, but not the aspectual value. That is, the verb remains perfective and a new lexical entry is derived. Another relevant point to be mentioned here is that simplex perfective forms, such as *dát* 'to give', can **only** be used in perfective contexts. For generic and imperfective contexts the marked imperfectivised form – *dá-VA-t* – must be employed. This shows that the simplex form has an aspectual value – the perfectivity – on its own.

  Because of these observations we theorize that the perfective value is already encoded in the stem of the verb regardless of the lack of overt marker(s). There are no comparable cases in English, German, or Dutch. Therefore, we argue that (a) in contrast to English, simplex forms in Slavic languages have a default grammatical aspect (in addition to their inherent Aktionsart), and (b) that simplex forms in English, German, or Dutch only make use of Aktionsart and are underspecified with respect to grammatical aspect. Turning back to L2 learners of Slavic languages, the dichotomy in the domain of simplex forms must pose a learning challenge since simplex forms are unmarked by default, nevertheless they carry an unambiguous aspectual meaning. Because of this, we are again dealing with a kind of false friend when translating (and teaching) the Czech *dát* as English 'to give'.

The next section will focus on some difficulties in characterizing and defining the notions of imperfectivity and perfectivity across languages.

2.4.   Perfectivity vs. imperfectivity: conceptual differences

This section focuses on the comparison between two binary aspectual systems: the Czech and the Russian systems. Although these two Slavic languages show many typological similarities, our research (e.g. Schmiedtová and Sahonenko in press) shows that in the aspectual domain there are crucial differences in native speakers' preferences, as well as in the distribution of the forms within the system. These differences may pose a real challenge to L2 learners.

As stated above, both languages encode two contrasting grammatical aspectual categories: the perfective and the imperfective. Both languages also use a number of simplex verbs, but in what follows, we will only focus on grammatically marked aspects. In principle, there are two operators that can change the aspectual value of a verb. The first operation is adding a *prefix* to the verbal stem. These prefixes do not only change the grammatical aspect, but they can also affect the semantics of the verb, i.e. derive a new lexical item. Moreover, with some verbs it is only the lexical meaning that changes. So, the challenge here is that the lexical and the grammatical modification can hardly be separated from one another (Comrie 1976; Schmiedtová 2004).

The other operation is adding a *suffix*. Suffixation leads to secondary imperfectivization of the verb (regardless of the type of verb stem) and the change is mainly grammatical (from perfective to imperfective aspect). These claims hold true for Russian as well as Czech. Let us consider a couple of examples.

(8)   Prefixation of the simplex imperfective form
        Czech: *psát*   Russian: *pisat'*
            IMPF-simplex
        Czech: ***VY-**psa-(-t)*   Russian: ***VY** -pisa(-t')*
            PREF-writePERF
        English: 'to write out (all keywords)/ to announce (a job)'

In (8) a simplex imperfective is turned into a perfective by the prefix *vy-*, which changes the meaning. Note that one and the same operator affects two linguistic areas: lexicon and grammar.

(9)   Suffixation of the simplex perfective form
        Czech: *dát*   Russian: *dat'*
            PERF-simplex
        Czech: *dá-**VA**(-t)*   Russian: *da- **VA**(-t')*
            PERF-give-2ndaryIMPERF

English: 'to be giving'

The point of example (9) is to illustrate the change of a simplex perfective to a marked imperfective verb (i.e. change in grammatical aspect only).

(10)   Suffixation of a prefixed perfective form
         Czech: ***VY-psat***   Russian: ***VY-pisat'***
                 PREF-writePERF
         Czech: ***VY-pis-OVA(-t)***   Russian: ***VY –pis-YVA(-t')***
         PREF-2ndaryIMPERF
         English: 'to be writing out (all keywords)/ to be announcing (a job)'

The same suffix (*-(o)va/-(y)va*) can be attached to a prefixed verb denoting perfectivity. As in (9), the suffix in (10) also changes the grammatical aspect.
The question to ask here is: what are the conceptual consequences of these operations? We do not completely adhere to how perfectivity and imperfectivity are usually described in the literature (for example Langacker 1987, Bybee (1992: 144)): "... perfective, which indicates that the situation is to be viewed as a bounded whole, and imperfective, which in one way or another looks inside the temporal boundaries of the situation ...".
  We want to be more specific and claim that the crucial difference between the perfective and imperfective is the *degree* of focus on the *right boundary* of a situation (e.g. in the situation, in which a person is drinking up a glass of water, the right boundary is reached when the glass is empty and the person is in the post state of having finished a glass of water). That is, the function of the perfective in Czech and Russian is to encode that a situation has reached its right boundary and also that an assertion is made about the possible post state of this situation (speaker's focus is on the right boundary). This is illustrated in Figure (1):
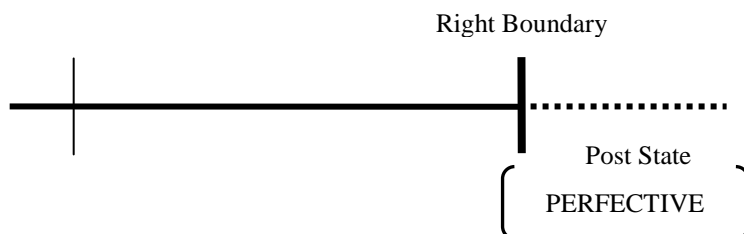

Figure 1: Scope of the perfective aspect in Slavic languages

In contrast, the secondary imperfective accesses the time interval prior to the right boundary, but (!) does not ignore the right boundary of the situation altogether, rather the secondary imperfective defocuses it, as in Figure (2):
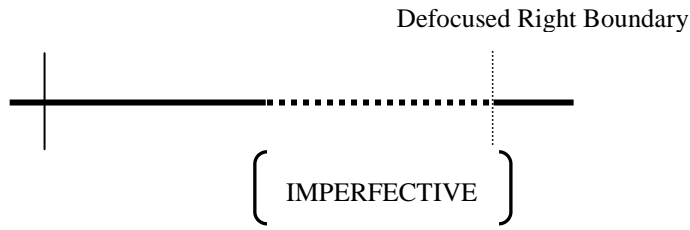
Defocused Right Boundary

Figure 2: Scope of the secondary imperfective aspect in Slavic languages

So, in both instances, the perfective as well as the imperfective aspect, the attention centers around the right boundary. This view of the imperfective aspect puts the frequently assumed similarity between the progressive (e.g. in English or Dutch) and the imperfective into question. Even though such a comparison might be linguistically interesting, our analyses show that the two aspectual operations are very different (for more details, see Section 3).

In the next section we will provide empirical evidence for the conceptual differences between the Czech and the Russian aspectual systems, as described above.

3   Underlying concepts in cross-linguistic comparison: Empirical data

In this section, we will first explain, using production data from Czech, Dutch, and Russian native speakers as well as advanced L2 learners of these languages, that grammatical aspect is not only a matter of grammatical form, but also of conceptualization. This conceptual structure is reflected in the language-specific preferences of native speakers when using different aspectual forms in their L1, as well as reflected in the overall degree of grammaticalization within each system. This new take on analyzing aspectual distinctions is pursued by our research group at the University of Heidelberg and finds its origin in research conducted by Christiane v. Stutterheim and Mary Carroll.

We base our analyses and description of aspectual systems on production data elicited from large samples of native speakers as well as learners. The experimental approach consists of an online production task, in which speakers (N=30) are asked to retell short everyday situations in answer to the question *What is happening*? (translated into all relevant languages), i.e. video clips depicting somebody drinking a glass of water, a dog running into a house, etc. In order to test our hypotheses, we make use of several sets of stimuli that are grouped according to situation type (e.g. causative actions, locomotions with +/- endpoints, etc.). This approach forces speakers to choose a particular aspectual form, which is

appropriate or obligatory for a specific situation type. To strengthen our arguments we also use other methods, such as speech onset times and eye-tracking measurements. By adopting this line of empirical research, combining linguistic analyses of production data with psycholinguistic methodology, we believe that we are able to tap into speakers' conceptualization patterns[7].

The focus of the previous studies (e.g. Carroll and v. Stutterheim 2003; v. Stutterheim and Carroll 2006; Klabunde and v. Stutterheim 1999) was on Semitic, Germanic, and Romance languages. It has been shown that the way events are depicted is highly dependent on the feature +/- grammatical aspect. It has also been found that the underlying principles for event construal are perspective driven and strongly linked to patterns of grammaticalization. Additionally, recent L2 studies have provided evidence that even very advanced learners fall back on conceptualization strategies from their L1 when construing temporal events in a L2 (cf. v. Stutterheim and Nüse 2003; Schmiedtová and Sahonenko in press). These findings also hold true for learners describing situations that are more complex than single events such as narratives. Carroll and Lambert (2003) have shown that the use of aspectual categories influences the overall information structure in more complex tasks, such as composing written or oral narrative texts. The next sections will deal with conceptual representations that underlie the grammaticalized aspectual categories of Czech, Russian, and Dutch.

3.1.   Differences between the Czech and the Russian aspectual systems

In the previous section we have discussed the concepts that are encoded by the two aspectual categories: the perfective and the imperfective. In what follows, we will present production data of native speakers of Czech and Russian (for both N=30). We will see that, despite very similar underlying aspectual systems, Czech and Russian native speakers have different aspectual preferences when construing events in their mother tongue. These preferences, as we believe, reflect the way in which these speakers view and conceptualize a situation.

First of all, in both the Czech and Russian native speaker data, there is a pronounced tendency to relate events to the right boundary (for Czech: 87% of all speakers; for Russian 77% of all speakers). This means that speakers mark an evident right boundary or endpoint of a situation as depicted in the stimulus. The stimuli set consisted of two types of scenes: in type one, the right boundary of a situation was visible in the clip and actually reached; in the other type, only a potential right boundary could be inferred but it was not depicted as being reached in the clip. The difference between the ways in which native speakers of Czech and Russian verbalized stimuli of the second type lies in the fact that Czech native speakers mention the endpoint more frequently (for Czech: 65% of all speakers; for Russian 25% of all speakers). In addition, Czech native speakers use the perfective form, independent of the scene type. Russians, on the other hand, showed a clear

preference for using the secondary imperfective in all scenes. When they used the perfective form it was exclusively for scenes showing the right boundary being reached.

In other words, speakers of different languages follow different preferential patterns when they encode events. We believe that these preferences which so far have been described from a linguistic point of view (i.e. surface structure) are rooted in differences in conceptualization of events. In one and the same stimulus, Czech native speakers concentrate on the time interval at and after the right boundary whereas Russian native speakers are sensitive to the time interval preceding the right boundary.

At the same time, the data show that the distribution of the aspectual forms within each system differs, too. That is, in Russian the imperfectivizing suffix *-(y)va* is productive and can be applied to many verbs. In Czech, by contrast, this suffix only combines with a small group of verbs. Additionally, as pointed out by Schmiedtová (2004), the perfective form, when used in the present tense, can have a here-and-now meaning in Czech. This is completely impossible in Russian where the present perfective always refers to the future. We hypothesize that in Czech the increased use of the perfective form goes hand in hand with the prominence of the underlying conceptualization (as depicted in Figure 1). In other words, the extensive use of the perfective aspect in Czech results in a perspective focusing on the right boundary of a situation and/or its post state. The same logic applies to Russian, where the frequent use of the secondary imperfective goes hand in hand with the imperfective perspective (i.e. focus on the time interval preceding the right boundary without excluding it completely). It remains an open question, however, in what direction this influence takes place. The relevant point here is that despite big similarities between the two aspectual systems, Czech and Russian native speakers differ considerably as far as their aspectual preferences are concerned.

In summary, our experimental data show that there is interplay between grammatical categories and conceptual structures. Furthermore, we see that even speakers of typologically related languages display different conceptually driven perspectives (preferential patterns) when selecting information for event construal.

With respect to L2 learning, in Schmiedtová and Sahonenko (in press) we showed that advanced Czech and Russian learners of German adhere to their respective L1 preference. For example, Czech learners use the concept of perfectivity in L2 German although German does not have grammatical aspect at all. The adherence to this concept becomes apparent in more frequent mentioning of endpoints in the form of local adjuncts (e.g. into the house) when retelling video clips depicting locomotions with ± endpoints. Even though German native speakers are also inclined to mention endpoints frequently (as pointed out in e.g. v. Stutterheim and Lambert 2005), the number of endpoints verbalized by L1 Czech speakers of German exceeds the average for German native speakers. This is a relevant finding because it illustrates that patterns found for native speakers for event depiction in their native language still drive the perspectivization in L2 production. This

important issue presents a considerable challenge to language teachers, since, for learners, being aware of the meanings of various aspectual categories is a good starting point for achieving native-like competence in a second language.

3.2 Progressive in English and Dutch: grammaticalization and conceptual structure

This part of the paper is devoted to the Dutch language. This is because in Dutch the progressive marker aan het + V-INF zijn is currently being grammaticalized (Flecken 2006). We are aware that a truly grammaticalized aspectual marker is morphological in nature and that the Dutch marker is still a periphrastic construction. However, we speculate that in the course of the grammaticalization process it will be reduced to a verbal morpheme. This seems to be already noticeable when considering native speakers' shortened pronunciation of this construction.

Because the Dutch grammatical system is in the middle of this process, we envisage that learners are confronted with the hard task of figuring out how the system operates. We will first present some empirical data illustrating the range of applications of this marker. Furthermore, we will show that the range is expanding, following the grammaticalization process described in Bybee et al. (1994), which motivates our focus on verb type. We will briefly discuss some differences between the Dutch construction *aan het* + V-INF *zijn* and the German construction *am* + V-INF *sein* and we will draw parallels between the Dutch and the English progressive marker. Finally, we will demonstrate that progressivity and imperfectivity denote two different temporal concepts.

First of all, it is necessary to define our notion of grammaticalization. As mentioned above, grammaticalization means expansion of the range of contexts in which a particular construction is applied. The starting point for grammaticalization is the use of a particular construction in its prototypical lexical environment. This use is inherently linked to a specific meaning of the grammatical feature, which slowly spreads out to less prototypical uses/contexts (Comrie 1976; Bybee et al. 1994).

Regarding the meaning of the Dutch progressive marker, in our data we observe that modifying a Dutch verb with the *aan het*-construction depicts situations as ongoing, as in example (11).

(11)   *Ik ben aan het lezen*
         'I am reading'

The aspectual marker in (11) defocuses both the initial and the final boundary of the situation and hence the temporal reference applies only to the *here-and-now*. The meaning of the Dutch *aan het*-construction is, therefore, identical with the

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meaning of the English –*ing*, which has the same function. Let us take a closer look at the similarities between Dutch and English.

   At first sight, the Dutch marker looks like a locative construction because of the locative *aan* (like the English prepositions *at/on*) (Boogaart 1999). Interestingly, the English progressive marker might have evolved out of a locative construction as well. This original construction looks similar to the contemporary Dutch periphrastic construction (12) (example taken from Bybee et al.: 132).

(12)   *He is **on** hunting*
         'He is hunting'

Comparing (11) and (12), we can see that the original meaning of both constructions could have been 'to be *in the place* of doing something'. This originally locative meaning evokes a very deictic here-and-now context, and we assume that, in a way, this condition was the starting point for the grammaticalization of the –*ing* form (also in Jespersen 1949; Comrie 1976). We claim that it is also the starting point in the grammaticalization process of the *aan het*-construction in current Dutch. In English, we see that this precondition is no longer necessary for application of –*ing*, as is apparent when looking at examples (13) and (14).

(13)   *Katja is hav**ing** an affair with Christopher*

(14)   *Doro is practic**ing** law*

The meaning of the -*ing* form in (13) and (14) is not necessarily restricted to the deictic (locative) here-and-now, but it is extended over a longer period of time (as in (13)), and it can even describe a habitual feature (as in (14)).

   In Dutch, this type of application of the *aan het*-construction is not (yet?) possible. The meaning of this construction mostly refers, at this point in time, to agentive subjects who are in the midst of an activity at reference time or in the very deictic past as in (15a) and (15b).

(15a)   *Ik ben **aan het** werken*
         'I am working'

(15b)   *Gisteren was ik **aan het** studeren*
         'Yesterday, I was studying'

We presume that in contrast to English –*ing*, the use of the Dutch construction in true habitual contexts is more constrained[8]. The traditional view of the *aan* het-construction in Dutch literature is that it is merely "a locative construction with a "progressive-like" meaning" (e.g. Boogaart 1999: 167). This view, however, does

not take into account that the Dutch grammatical system is evolving and hence the progressive marker is becoming part of the core grammar.

In our view, we take the above observations to mean that the Dutch progressive construction is *at the onset* of a similar grammaticalization process but that, the English progressive marker is in a far more advanced stage within this process. This has been shown empirically: in our data English native speakers, when construing events, use the *–ing* in all cases whereas the simple form is completely **absent**. That is, all native speakers of English (N=60) in our sample resort to the progressive marker when asked to tell what is happening **or** even what happens.

Going back to the Dutch language, in order to sketch a more accurate development of the *aan het*-construction, we focus on the types of verbs (Aktionsart, in line with Klein 1994) that take the marker *aan het* (in line with Bybee's approach to grammaticalization).

The first step of grammaticalization, thus the prototypical context for using progressive markers, is to use it in situations denoting an activity, e.g. *wandelen* ('to take a walk'), *zwemmen* ('to swim'), but also *een boek lezen* ('to read a book'), *de tafel poetsen* ('to clean the table'). In the prototypical phase, the prerequisite for using the *aan het*-construction is the possibility of defocusing boundaries. All predicates that inherently refer to one of the boundaries (such as *to fall*) do not combine with the *aan het* marker at this stage of grammaticalization. The verb type which meets all these conditions is the one state verb, such as *zwemmen* 'to swim'. In the next grammaticalization phase, the two state verb referring to a rather *long* time span is included (e.g. *veranderen* 'to change') followed by the two state verb denoting a *short* time interval (e.g. *breken* 'to break'). The last step is the expansion to zero state verbs, such as *houden van* 'to love'. Interestingly, in English the grammaticalization process of the *–ing* suffix has reached this last phase: It is grammatical to say *I am loving it* (in the sense of 'I am enjoying it') or *She is having a baby* (although they have two different temporal meanings).

To illustrate this process for Dutch, we present some preliminary results of an acceptability judgment task using a five degree scale ranging from completely acceptable (5) to completely unacceptable (1). We asked 30 Dutch native speakers to make a choice between a simple verb form and a verb marked by an *aan het*-construction in here-and-now contexts. We differentiated between the four types of verbs described above: one state verbs, two state verbs with long and short duration, zero state verbs. It turned out that one state verbs (e.g. *lezen* 'to read', *tekenen* 'to draw', *schilderen* 'to paint', *knutselen* 'to tinker', *pianospelen* 'to play the piano') triggered the most frequent use of the *aan het* construction. The second best attractor for *aan het* was the two state verb with a long duration[9] (as in *afmaken* 'to finish', *afwassen* 'to do the dishes', *veranderen* 'to change'), followed by the two state verb with a short duration, e.g. *vallen* 'to fall', *exploderen* 'to explode', *breken* 'to break'. The zero state verbs did not elicit any choices for the *aan het*-construction in the here-and-now-context.

As far as acceptability is concerned, this task has allowed us to interpret the values that the participants attached to the form they did not choose. They always had to grade the other form in terms of its acceptability in a given context. The most important finding was that participants rated the simple form as unacceptable in here-and-now contexts for the verbs expressing a game-like activity, examples of which are *zwemmen* 'to swim', *tafeltennissen* 'to play table tennis', *schilderen* 'to paint'. Moreover, they rated the *aan het* form as unacceptable in clauses with motion verbs plus a depicted endpoint (as in **Ik ben in het water aan het springen* 'I am jumping into the water'). These results make sense: The latter verb type expresses the shortest possible duration, namely the time interval right before reaching the final boundary, which makes defocusing of boundaries quite impossible.

A further interpretation of these results is that in a number of cases the *aan het*-construction was considered compulsory by the participants. As pointed out above, this is the case for situations expressing activities taking place in the here-and-now. The simple form in these cases was rated unacceptable because using the simple form renders a habitual meaning in these contexts. For example, following the question *Wat ben je aan het doen*? 'What are you doing?' all Dutch native speakers in our sample choose the *aan het* form in combination with one-state verbs, e.g. *Ik ben aan het werken* 'I am working'. The simple form, *Ik werk* 'I work', is rated as completely unacceptable in such contexts. In summary, when activity verbs and verbal predicates are used in a here-and-now context the *aan het* marker is obligatory.

Again, this is comparable to English, because the difference between *I am dancing* and *I dance* is that the former implies an activity that is taking place at the time of utterance; whereas the latter refers to a habitual activity (a hobby or perhaps even a job). Bybee et al. (1994) label this phenomenon as grammaticalization of zero (i.e. the unmarked form receives a different meaning in certain contexts). Of course we realize that the depiction of the grammaticalization process is rather different from the question of what the actual attractors are for using the *aan het*-construction. It cannot solely depend on the verb type, but will rather be a matter of the entire predicate.[10]

An interesting comparison to draw at this point is between Dutch and German. Though both languages are typologically similar, one important difference is that Dutch is grammaticalizing a marker for ongoingness, whereas in German ongoingness is mainly expressed by lexical means. German has a construction, which is form-wise very similar to the Dutch one. Consider example (16).

(16) GER: *Rieke **ist** (gerade) am/beim Kochen*
    NL: *Rieke is **aan het** koken*
    ENG: 'Rieke **is** cooking'

The German periphrastic construction is merely a regional and stylistic variant of Standard German while in Dutch it is an obligatory marker in such a context, compared to the unmarked simple verb form. Furthermore, the progressive markers in English as well as Dutch are systematically used by native speakers for the expression of other temporal concepts, such as the expression of simultaneity between two events in present tense. The German construction is never produced in such contexts (see Schmiedtová 2004; Flecken 2006).

Looking at these similarities from a learner's point of view, we have another occurrence of false friends. Learners have to deal with two very similar forms that do not show a similar distribution across verbs and, in addition, are employed by speakers for different purposes.

The last point to be addressed in this section is the difference between progressive and imperfective aspect. As we have shown in Section 3.1, speakers of Slavic languages do not ignore the right boundary of the depicted situation when using the marked imperfective, but rather include it in their conceptualization and verbalization of situations. In other words, by using this form speakers refer to the time interval anchored in the here-and-now and to the linkage of this time interval to the right boundary. The Dutch and the English progressive, by contrast, are used to link situations to the deictic here-and-now without any explicit temporal information about the right (or left) boundary. The progressive marker merely expresses ongoingness. This is especially true in Dutch where the grammaticalization process of the *aan het* marker has started out exactly from this context.

To relate this observation to the conceptualization of temporal events, we know from eye-tracking studies that Dutch and English speakers concentrate **only** on the ongoing process of situations regardless of whether they depict a right boundary (v. Stutterheim and Carroll 2006; Carroll et al. in press). We speculate that Slavic speakers, when using the secondary imperfective to describe ongoing situations of the same type as above, will *also* pay attention to the right boundary.

To conclude this section, it is important for researchers, teachers and learners to take into consideration the conceptual differences between the imperfective and the progressive aspects.

4 Conclusions

The present paper centers around the idea that the analysis of grammatical aspect contains at least the following two different areas: the form and the meaning. Another idea is the usage and applicability of aspectual forms in context that are determined by the preferences of native speakers.

When investigating aspectual forms cross-linguistically many similarities can be observed. The tricky issue is, however, that the mere existence of a form in a sytem

or similar forms across systems does not necessarily entail an equally frequent production. To this end, we have demonstrated on the basis of a comparison between German and Dutch that similar forms with comparable meanings do not show the same **distribution** in native speakers' **production**. The same holds true for the language pair Czech and Russian. Despite the similarities between the two aspectual systems, Czech and Russian native speakers show different **preferences** for applying aspectual forms. These preferential patterns are closely linked to differences in conceptualization, which only become evident when examining empirical material collected by means of experimental methods.

The second area of analyzing aspectual systems is meaning. We have claimed that categories such as progressive and imperfective aspect, albeit applicable in comparable contexts, encode different temporal concepts. Again the same statement holds for the terms telic and perfective. They too are not interchangeable and, in addition, belong to two different kinds of aspect: lexical (telic) vs. grammatical (perfective).

Note that even when two forms and their temporal meanings are very similar there can still be a difference with respect to the conditions under which these forms can be employed. This is directly connected to the degree of grammaticalization of the respective aspectual form. This has been presented on the basis of the progressive markers in English and Dutch.

Another point to be mentioned here is that many divergences pointed out in this paper do not only occur between typologically distinct languages (such as Russian and German), but also between languages that are typologically closely related (e.g. languages within the Slavic or Germanic group). To summarize the differences between the different languages that we addressed, consider Figure 3.

Language	Czech/Russian	English	Dutch	German
Form	suffixes/prefixes	*-ing*	*aan het* + V (inf) zijn	*am/bei* + V (inf) sein
Temporal Function	± reaching of the right boundary	defocusing boundaries	defocusing boundaries	defocusing boundaries
Term	imperfective/perfective	progressive	progressive	??
Degree of Grammatica-lization	both aspects fully grammaticalized	fully grammaticalized	in the process of being grammaticalized	not in the process of being grammaticalized

Figure 3: Overview aspectual devices in different languages

These observations are highly relevant for teaching and learning. It is reasonable to assume that to focus on form is the least complex approach to teaching aspect, although we have illustrated that even in this area false friends can be identified. As far as meaning is concerned the issues are equally serious. Several aspectual categories that we dealt with are used synonymously in the literature, even though they denote semantically and conceptually different entities.

Now, what about L2 learning? It is true that at the onset of acquisition false friends can aid and support the learning process. Looking at advanced learners, on the other hand, provides a considerable piece of evidence that false friends hinder learners in the possibility of achieving nativeness (e.g. English learners of Czech in Schmiedtová 2004). Note that advanced learners are in perfect command of the aspectual forms and even their meaning (i.e. they do not make any grammatical errors), but they do not successfully (not in a native speaker-like fashion, that is) use the principles that govern the application of the forms. In other words, they do not follow native-like **preferences**, but rather rely on patterns of use from their respective L1s (research conducted by our group in Heidelberg).

We are not sure whether these preferences can be learned at all (for a discussion of the feasibility of ultimate attainment, see e.g. van Boxtel 2005). Nevertheless, it is essential to attempt to encourage the learning of aspectual distinctions as *a whole*. That means that linguists and language teachers have to realize that the debate on aspect is not only a matter of terminology, but that aspect is a conceptual category that requires empirical research. We believe that the approach to view aspect as a **conceptual category** and to adhere to **empirical research** when investigating this linguistic domain would be beneficial to teachers as well as learners.

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[1] The term *preference* refers in our framework to highly automated processes that speakers activate during speech production. The structures involved in these processes consist of concepts that are expressed through grammaticalized (linguistic) means.

[2] To avoid confusion, in our terminology we label lexical aspect Aktionsart.

[3] Bybee et al. (1994) label this phenomenon grammaticalization of zero (of the unmarked form).

4 The present perfective in Slavic languages is considered to have a future interpretation (for Czech: Petr 1987; for Russian: Isačenko 1982). Recent research, however, has shown that this is not necessarily the case for Czech, where perfectively marked verbs in the present tense can have a present tense (here-and-now) interpretation (Schmiedtová 2004, 2005).

5 A possible way of testing whether the aspectual value of the unmarked simplex forms is part of the grammar (grammatical aspect) or the lexicon (Aktionsart) is to conduct a priming experiment. This research question will be addressed in our lab at the University of Heidelberg in the near future.

[6] There are about 20 different prefixes available in Czech that are used to make a verb perfective. Each of them is associated with a cluster of meanings, most of them exhibit polysemy and homonymy, and the realization of a given meaning of a prefix is highly dependent on the context in which the prefix occurs. The same holds for Russian.

[7] Preliminary results clearly indicate that grammatical features guide speakers' attention patterns: To be more precise, the focus on the right boundary as predicted by our linguistic analyses of Czech and Russian is visible in speakers' eye movements (significant difference in amount of fixations in the critical region) and speech onset times (a significantly later speech onset times for speakers who are right boundary-minded). The patterns that were found in the production data thus have a psycholinguistic reality.

[8] We are currently testing this hypothesis with Dutch native speakers by means of an acceptability judgement task.

[9] The duration was brought about through the description of the situation. The verb itself does not reveal the duration of the situation. For example, in the case of *veranderen*, the situation was described as 'changing the interior of one's apartment', elongated with several adverbials expressing that you have been working on this for a very long time so far and you will not finish this in the near future.

[10] This approach to the *aan het*-construction is being pursued by Marianne B. Starren's research group in the Business Communication Department at the Radboud University in Nijmegen, The Netherlands.