THE RELATIONSHIP
BETWEEN INHERENT ASPECT AND PAST TENSE
IN THE EARLY AND LATE ACQUISITION OF L2 POLISH

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ABSTRACT

The paper describes the results of an empirical study concerning the acquisition of tense-aspect morphology in Polish interlanguage at the background of the so called Primacy of Aspect Hypothesis developed by Andersen (1984, 1991). In view of the current popularity of this framework I verify its relevance for Polish, where the distinction between lexical (inherent) aspect and grammatical aspect is not as obvious as in Germanic languages. After introducing the problem in connection to contemporary research I present selected theoretical approaches to aspect in Sections 1–3. In Section 4 I summarise the results of SLA studies of aspect acquisition relevant to the Primacy of Aspect Hypothesis. In Section 5 I analyse the obtained data in comparison to cross-linguistic results. I conclude with an attempt to account for the distribution of past tense marking in Polish learnt as L2.

1. Introduction

SLA studies pertaining to aspect have dominated the contemporary research in the field. They emerged from research concerning morpheme order and phonetic constraints on past tense morphology. Early research did not provide much insight into the process of the development of aspectual morphology as the studies focused on the product, i.e. on instances of well-formed verbal predicates (e.g. Andersen 1977).

Currently, two main approaches to aspect acquisition predominate: the meaning-oriented approach and the form-oriented approach. The former aims at selecting the linguistic devices utilised by the learner to express a particular concept. For example, on the onset of language acquisition the past can be expressed through noun phrases (the nominal stage), various pragmatic means (such as chronological order narration) or lexical means (e.g. time adverbials). Verb forms are employed only finally; however, base forms of verbs are replaced with inflected ones when the interlanguage development reaches an ultimate phase.

Contrastively, research set in the form-oriented approach, assumed in the present paper, tracks the use of a specific formal marker of tense-aspect morphology. For instance, the Primacy of Aspect Hypothesis (Andersen 1984), which concentrates on the strong relationship between inherent aspect and past tense morphology in early acquisition, falls within the form-oriented approach. Andersen (1984, 1991) claims that mostly telic verbal predicates are associated with past tense inflections, whereas atelic VPs obtain much lower rates of past tense marking. Learners' behaviour becomes less asymmetrical in the course of acquisition and atelics begin to be inflected for the past. Another universal property of early acquisition of tense and aspect is a tight link between the perfective viewpoint (Smith 1997) and past tense marking. The imperfective grammatical aspect is fully acquired much later than the perfective.

2. Inherent aspect

According to Comrie (1976: 3) aspect is "a way of viewing the internal temporal constituency of a situation". Inherent aspect, frequently referred to as lexical aspect or Aktionsart (kind of action), can be calculated on the basis of intrinsic temporal characteristics of a verb phrase. Internal semantic complexity of a verb phrase is reflected in its structure and it is not only linked to the verb and its (internal and external) arguments but also to adjuncts (Verkuyl 1993). Verb phrases (VPs) can be grouped into four categories, differing from one another in one feature. The primary division is between statives (states) and nonstatives (activities, achievements and accomplishments). States are, by nature, the only non-dynamic member of the classification. The feature distinguishing activities from other nonstatives is telicity. Activities are the category of VPs in which the described action does not lead to a determined goal or another terminal point (e.g. Garey 1957: 106). Achievements and accomplishments are [+telic], differing in punctuality. Thus, accomplishments, which involve a process, display duration, and thus are non-punctual, while achievements are punctual occurrences. This taxonomy is summarised in Table 1.

Table 1. Lexical classes according to Mourelatos (1981)

Features	States	Activities	Accomplishments	Achievements
punctual	–	–	–	+
telic	–	–	+	+
dynamic	–	+	+	+

Table 2 illustrates grouping of English VPs according to their membership in lexical aspectual classes.

Table 2. Verbal predicates grouped according to inherent aspect

	States	Activities	Accomplishments	Achievements
Examples	be famous, be small, understand, live	walk, ride a bike, swim in the lake, drink	walk to school, ride a bike to London, drink three cups of tea	notice, fall asleep, win the race, find

Dowty (1986: 42) accounts for the classification in a more formal way. In his characterisation, though, the punctual/durative distinction seems unimportant, so the same definition is assigned to accomplishment and achievement VPs: "a sentence ϕ is an accomplishment/achievement if it follows from the truth of ϕ at an interval I that ϕ is false at all subintervals of I". According to Dowty, "a sentence ϕ is a stative if it follows from the truth of ϕ at an interval I that ϕ is true at all subintervals of I". Finally, activity is defined as follows: "a sentence ϕ is an activity if it follows from the truth of ϕ at an interval I that ϕ is true at all subintervals of I down to a certain limit in size".

Actually, the results of empirical studies of aspect acquisition reflect Dowty's classification of events. Namely, in early interlanguage past marking on achievements and accomplishments is prevalent, whereas activities, acquired later, get the past marking much later as compared to telics, though relatively earlier than statives, learnt as last (for instance Andersen 1991; Bardovi-Harlig 1994; Robison 1995; Slabakova 2000). Moreover, research on discourse structure has proved that telic verb phrases dominate in narratives elicited from native speakers of English (e.g. Hopper 1979; Dry 1983). Hence, regarding telics as a uniform group seems entirely justified.

Telicity is probably the most salient feature in relation to the present study. Firstly, telicity, punctuality and resultativity constitute a cluster of characteristics that achievements share with prototypical past. It is noteworthy that telicity refers to VPs that can only continue up to a natural or intended terminal point (Depraetere 1995: 3). Resultativity, on the other hand, is strictly related to an outcome of an action, which is not an indispensable semantic component of telicity. Then, a semantic concept of prototypical past is based on the following properties: [+unitary], [+result state], [+punctual] and [+past] (Andersen and Shirai 1994). This may partly answer the question why achievement VPs are inflected for the past at the beginning of the learning process. Secondly, telicity entailments for Slavic languages (i.a. compatibleness of span adverbials such as *w pięć minut* 'in five minutes' with telic predicates) are based on morphosyntactic properties of the VP, i.e. a perfective prefix on a verb is one of the markers of telicity and it induces a quantized reading of the direct object (Filip 1997). In English and other Germanic languages it is the combination of a verb and its direct object that results in a specific value of telicity. Hence, the feature is acquired earlier and easier by learners of Slavic languages than by those learning English, German or Dutch (van Hout 2002).

It must also be pointed out that linguists differ in the assignment of VPs to lexical aspect classes, which is by no means absolute. Hence, sentences (1-3) can be interpreted as telic or atelic, depending on what the situation looked like in real life.

(1) The car moved
    (a) twice.
    (b) for an hour.

(2) The fence touched the wall
    (a) once.
    (b) for twenty years.

(3) John pushed the button.
    (a) (he pressed it once)
    (b) (he was playing with the button, pushing it to and fro on the table)

A language user uttering sentence (1) may speak of a repeated movement of the car on a limited distance (1a), but s/he may as well have in mind a constant movement lasting an hour (1b). The second reading allows for the use of the progressive, which cannot be felicitously used with the telic interpretation. As the adjunct in (2a) induces a telic, punctual reading, the proposition expressed in the sentence is an achievement, while the VP in (2b) certainly represents a long-lasting state; clearly, the *for*-phrase blocks the eventive reading.

At first sight it may appear that the VP in (3) can only get the telic interpretation of a punctual event (3a, achievement). Nevertheless, if one thinks of John pushing an uninstalled button on a table, then an atelic reading emerges. Hence, this event will be understood as an activity of playing with the button (Borer 2003).

The above discussion of inherent aspect shows that there is no unique taxonomy of events. Still, the groupings proposed by Vendler (1967) and Dowty (1979) are the most widespread as a starting point of empirical studies in the acquisition of aspect in a variety of target languages.

3. Viewpoint aspect in Polish

Traditionally, aspect in Polish is analysed with respect to the well-known perfective-imperfective distinction. Smith (1997) represents the distinction in question schematically as in (4):

(4)   Perfective   /............./   John walked to school.
        Imperfective ...//////////... John was walking to school.

Every verb form in Polish and other Slavic languages can be classified in terms of viewpoint (Strutyński 1996). Nevertheless, the exact value of grammatical aspect of some verbs may be disputable, as, e.g., in the case of double-aspect verbs, such as *ofiarować* 'to give/donate', *aresztować* 'to arrest', *imitować* 'to imitate'. This phenomenon, however, concerns only a minority of Polish verb forms.

A specific value of aspect is a result of the speaker's choice (Comrie 1976). Unlike the temporal category of tense, grammatical aspect is relative in the sense that the same real life situation can be referred to by means of either aspect. So, a situation in which a person is engaged in playing the piano can be verbalized as (5a) or (5b) without any harm to the intended proposition. In order to describe the situation in (5) the speaker is offered two aspectual options. If the speaker perceives the event as bounded, they will draw on the perfective aspect. At the same time, the imperfective will be valid with the situations assessed by the speaker as unbounded. Quite conversely, the relationship between the time of speech and the time of the event (tense) cannot be freely altered as any alteration brings about falsehood of an intended meaning of a sentence. (6a) and (6b) cannot be used to refer to the same event, while the sentences in (5) may be treated as equivalent and hence (5a) and (5b) can both describe the same situation.

(5a)   Janek   grał   na pianinie.   Imperfective
        John $play_{3SG.PAST}$ piano
        'John played the piano.'

(5b)   Janek   zagrał   na pianinie.   Perfective
        John $PERF\text{-}play_{3SG.PAST}$ piano
        'John played the piano.'

(6a)   Janek   mył   samochód. ≠ (6b)   Janek   myje   samochód.
        John $wash_{3SG.PAST}$ car   John $wash_{3SG.PRES}$ car
        'John washed the car.'   'John washes the car.'

What is also crucial as far as viewpoints are concerned is the fact that, apart from presenting a situation as a whole (perfective) or as a sequence of phases excluding the boundaries of the situation (imperfective), they influence the interpretation of the direct object NP (as was mentioned in the previous section). Very frequently, the imperfective aspect imposes a generic reading on the object of an atelic sentence (7a), while the perfective aspect induces interpreting the object NP as specific. Besides, it produces the effect of telicity (7b) (e.g. Filip 2001).

(7a)   Maria   jadła   chleb.   Imperfective
        Mary $eat_{3SG.PAST}$ bread
        'Mary ate bread.'

(7b)   Maria   zjadła   chleb.   Perfective
        Mary   PERF-eat$_{3SG.PAST}$ bread
        'Mary ate the bread.'

Nevertheless, Slabakova's (2001) empirical study on how direct object NP is understood by native speakers of Russian suggests that such claims may be rejected. As follows from the obtained responses the participants did not conform to the well-known interpretation of the object NP. Fifty per cent of the native speakers judged the direct objects of test sentences as generic, while the other half of the participants preferred to assess the same direct objects as non-generic, irrespective of the viewpoint.

In some cases both viewpoints may contribute to an identical interpretation of the object NP. As Filip (1999) proposes, boundedness of the entity expressed by the object NP usually induced by the perfective aspect, may be induced by the imperfective. So, in both (7a) and (7b) the speaker identifies a limited quantity of bread, present in the universe of discourse, which is signalled by the prefix in (7b). Sentence (7a) also applies to a defined subpart of the kind, which can be identified by the speaker.

Naturally, empty prefixes such as *z-* and *na-* as in (8) are not the only possibility to create perfective verbs in Polish (or other Slavic languages).

(8a)   jeść   zjeść   (8b)   pisać   napisać
        eat$_{IMPERF}$ PERF-eat   write$_{IMPERF}$ PERF-write
        'eat'   'write'

An intricate web of meanings is obtained through lexical and superlexical prefixes as well as through deriving secondary imperfectives from simple perfective verbs. Lexical prefixes function similarly to German particles (Svenonius 2003), i.e. they alter the original meaning of the verb, yet they do not influence its grammatical aspect. Verbs derived from an unprefixed simplex verb are presented in (9).

(9a)   dać   od/dać   wy/dać   do/dać
        give$_{PERF}$ back-give$_{PERF}$ out-give$_{PERF}$ into-give$_{PERF}$
        'give'   'return, give back'   'publish'   'add up'

(9b)   rzucać   wy/rzucać   od/rzucać   na/rzucać
        throw$_{IMPERF}$ out-throw$_{IMPERF}$ back-throw$_{IMPERF}$ on-throw$_{IMPERF}$
        'throw'   'throw away/out'   'reject'   'impose'

Superlexical prefixes (Svenonius 2003), though, are strictly related to aspectual concepts such as beginning of an action expressed by the verb (inceptive), an action lim-

ited in time (pofective), completion of a situation (completive), exercising an action on a group of entities one by one (distributive), and others, as shown in (10).

(10a)   za/śpiewać   (10b)   po/chodzić   (10c)   do/biec
         INCEP-sing   POF-walk   COMPL-run
         'start singing'   'walk for a while'   'finish running'

(10d)   po/wyrzucać   (10e)   na/gotować
         DISTR-throw   CUM-cook
         'throw away one by one'   'cook a lot of'

Secondary imperfectives are those verb forms that are derived from perfective verbs through suffixation. The suffix used to create secondary imperfectives in Polish is *-yw-*; it turns perfectives back into imperfectives, as illustrated in (11).

(11a)   wy/kopać   wy/kop-yw-ać
         out-dig$_{PERF}$ out-dig$_{IMPERF}$ 'dig out'

(11b)   wy/rwać   wy/r-yw-ać
         out-pull$_{PERF}$ out-pull$_{IMPERF}$ 'pull out'

4. How aspects interact in Polish

On calculating the aspectual meaning in Polish, the speaker has to rely on the interactions between inherent and grammatical aspect. Therefore, I assume the two-component theory (Smith 1997), the T and P properties (Dahl 1981), and Filip's (1999) approach to viewpoint aspect, claiming that Perfective and Imperfective are aspectual operators working on verbal predicates.

The interaction between the aspects in Polish can be considered in terms of the T and P properties. The former boils down to the feature of telicity of a VP, therefore [+telic] predicates, i.e. accomplishments and achievements possess the T property. The P property pertains to viewpoint and is present in perfective telic predicates. According to Dahl (1981) a VP can be characterised by the P property only if it possesses the T property simultaneously. Clearly, Dahl's claims are reflected in Slavic languages like Polish (see Table 3).

According to Filip (1999), predicates such as *pisać list* 'write$_{IMPERF}$ a/the letter', *śpiewać$_{IMPERF}$ piosenkę* 'sing a/the song, *jeść$_{IMPERF}$ jabłko* 'eat an/the apple', etc. can be interpreted as telic due to the fact that their nominal arguments are linked to quantized entities (Krifka 1992). As was already remarked, Polish verbs do not exist in an 'aspectless' form. I chose to illustrate telic VPs with imperfectives, yet with perfectives the same goal would be achieved. Filip (1999) proposes that any VP is

Table 3. The T and the P property for Polish

	not-T	T
not-P	Janek pisał. *John write₃SG/PAST IMPERF* 'John was writing.'	Janek pisał list. *John write₃SG/PAST IMPERF letter* 'John was writing a/the letter.'
P	–	Janek napisał list. *John PERF-write₃SG/PAST letter* 'John wrote a/the letter.'

initially classified with respect to inherent aspect. Afterwards, the aspectual operators are applied and the a/telic VP is interpreted as perfective or imperfective, depending on the operator, as presented in (12).

(12a)	Jan śpiewał piosenkę.	Telic, imperfective
(12b)	Jan zaśpiewał piosenkę.	Telic, perfective
(12c)	Jan śpiewał piosenki.	Atelic, imperfective
(12d)	Jan zaśpiewał piosenki.	Telic, perfective

The present analysis is in line with the two-component account of aspect (Smith 1997). Krifka's (1992) theory, on the other hand, represents a one-component account as he states that telic predicates are at the same time perfective and atelic VP appear with imperfective viewpoint exclusively. That certainly is not compatible with aspects in Polish, where the activity verb *śpiewać piosenki* 'sing songs' can obtain the telic reading of an accomplishment, when accompanied by the perfective viewpoint, as is the case in (12d).

5. Empirical studies in the framework of the Primacy of Aspect Hypothesis

The Primacy of Aspect Hypothesis has arisen from the all-or-nothing version of the hypothesis for L1 claiming that on the onset of language acquisition past tense inflections will be associated *exclusively* with telic verbs. In contrast, the so called late Primacy of Aspect Hypothesis pertains to producing past tense morphology *predominantly* with telic verbs in the initial stages of interlanguage development. Three major principles are claimed to be guiding learners' acquisition of tense-aspect systems. Learners behave in accordance with the relevance principle when in their performance inflections most relevant to the meaning of the verb are placed right after the verb stem. The congruence principle holds if verbal morphology used by learners shares a number of semantic features with lexical aspect of the verb (hence the

achievement-past tense morpheme correlation). Moreover, the one-to-one principle predicts that learners' early intuitions about a newly-acquired morpheme are such that only one function and meaning is linked to each morpheme (Bardovi-Harlig 2000).

In (13) I summarise the findings related to the Primacy of Aspect Hypothesis, following Slabakova (2000) and Li and Shirai (2000):

(13) Results of empirical studies pertaining to the Primacy of Aspect Hypothesis

   (a) Past tense marking appears on achievements and accomplishments, gradually spreading to states and activities.

   (b) Learners of languages which encode the perfective-imperfective distinction use the former much earlier than the latter.

   (c) Statives are the first to be marked with the imperfective aspect; the marking is later extended to activities, accomplishments, and achievements.

   (d) The use of progressive is initially restricted to activities, and then spreads to accomplishments and achievements; it might be overgeneralized to stative predicates.

The framework of the Primacy of Aspect Hypothesis has developed into extensive research, addressing not only cases of untutored learners (for example Andersen 1991) but also the classroom environment acquisition (Bardovi-Harlig 1995, 1998). The general trend in crosslinguistic results is a strong relationship between lexical classes and past tense, which is in accordance with the Primacy of Aspect Hypothesis. Thus, learners of English behave in quite a conservative way, initially marking mostly achievements with the past tense ending. While the past tense morphology is developing, the marking is gradually spreading from achievements and accomplishments to activities and finally states. Learners of English as a second language overextend the progressive marking to states, which is not the case in English acquired as the first language. Predicates that are [+durative] (activities) and [+imperfective] attract the *-ing* ending, as shown in numerous studies utilising a variety of data elicitation techniques, from recording students' spontaneous speech production to cloze tests (Taylor 1987; Robison 1990; Bardovi-Harlig and Bergström 1996).

Evidence from German (Klein 1986), French (Véronique 1987) or Spanish (Ramsay 1990) also suggests legitimacy of the Primacy of Aspect Hypothesis. The pattern for Spanish, for instance, shows that past perfective marking appears on telic verbs, and then on atelic VPs. The imperfective marking starts with durative verb phrases; thus, the order of acquisition is exactly reverse as compared to the order for the perfective (Andersen and Shirai 1994; Ramsay 1990; Robison 1995).

The lack of correlation between past tense inflections and inherent aspect in the research of Spanish presented by Salaberry (2000) is a counterexample to the Pri-

macy of Aspect Hypothesis. Salaberry found almost no connection between telic predicates and past tense morphology in the initial stages of the interlanguage. Testing the hypothesis for non-Indo-European languages, such as Chinese, has led to questioning its universality as well (for instance Chang 2002).

As for Polish, there are examples of studies of children learning Polish as their native language (e.g. Weist et al. 1991). Still, the issue of the distributional bias hypothesis has not been taken into consideration in studies of the acquisition of Polish as a second language. The ease of learning the perfective and the late acquisition of the imperfective in the naturalistic context are the best known facts about the acquisition of Polish aspect. Andersen (1984) claims there is quite a strong connection between past tense, perfective aspect, and telic predicates in the Polish data collected by Weist et al. (1984). The same point is made by Bloom and Harner (1989), who have analysed (independently from Andersen 1991) the data in question as well. What Li and Shirai (2000) suggest is that the associations that have resulted in formulating the prototype account are either strong (e.g. English) or rather weak (e.g. Polish); nonetheless, they are present cross-linguistically whatever their strength may be. The prototype account is deep-rooted in the prototype theory of human categorization advanced by Rosch (1975). Each category has its prototypical members, displaying the greatest number of characteristic features typical for the given category. Yet non-prototypical members share fewer properties with other members of the category. In the case of tense and aspect acquisition the prototypes of a category are first marked with specific morphology, and then the marking spreads to other, less prototypical members.

As, to my knowledge, the framework of the Primacy of Aspect Hypothesis has not yet been tested with reference to Polish learnt as L2, it is worthwhile to select this issue as a research objective. The next section of the paper is devoted to a description of a study of aspect acquisition concerning the relationship between inherent aspect and past tense. Besides, some claims on the link between viewpoint aspect and inherent aspect, relevant to the prototype account (cf. Grzegorczykowa 1997) will be made and analysed.

6. The study

6.1. Research hypothesis

Having carried out preliminary research on a group of 13 non-native speakers of Polish, I claim that the influence of inherent aspect on the acquisition of past tense morphology shows itself on the onset of acquisition. Nonetheless, the interaction is not as strong as reported in similar studies on English, German, or Spanish. Besides, I assume that the aspect-tense connection becomes weaker with the development of interlanguage. Even upper-intermediate learners of L2 Polish, however, may fall

back on inherent aspect while dealing with typical telics. Moreover, it is plausible to presume that proficient learners will shift the viewpoint of some telic VPs from Imperfective into Perfective, as this is what I observed in the L1 Polish students assigned to the control group in the preliminary research.

6.2. Subjects

I conducted a cross-sectional study on two groups of non-native learners of Polish. 26 beginners and 27 proficient (upper-intermediate) speakers were tested. The participants represented the following L1 background: Arabic (6), Chechen (1), German (5), Greek (3), Kazakh (1), Russian (7), and Spanish (3) in the beginner group and Russian (11), Romanian (1), Ukrainian (9), Latvian (2), and German (4) in the proficient group. The level of their proficiency in Polish was established on the basis of the fact that the first group received about 120 hours of instruction, whereas the more proficient one – about 400 hours. Besides, they interact with native speakers of Polish on daily basis, as they are a part of student communities of two universities in Wrocław, Poland. The participants of the study were selected out of 5 groups of students in the School of Polish Language and Culture at Wrocław University and the Department of Polish at Wrocław University of Technology. The age mean was 22.3 in the beginner group and 23.4 in the proficient group.

6.3. The task

The task presented to the groups was a cloze-type test. The beginner test consisted of 50 contextualised items. Each test item required either the use of past tense or the use of present tense. There were 8 distractors, where a future construction (not under investigation in the present study) was required. While selecting a proper vocabulary range, I was guided by word lists that participants received after completing a unit of the course of Polish they were taking part in. The beginners' knowledge of vocabulary did not exceed the minimum required during first months of formal instruction of Polish.

The test for the upper-intermediate group comprised 53 items, in which infinitives given in brackets were to be inflected for past or present, depending on the context. As the competence level of the subjects was much higher than that of the beginner group, vocabulary used in the test had to be adjusted to learners' proficiency.

In order to classify each item I drew on the well-known Vendler-Dowty classification, and on the approach to Polish aspect developed by Grzegorczykowa (1997). Test items were composed of a verb (an infinitive) and (often) internal arguments of the verb. Thus, *śpiewać* 'sing$_{\text{IMPERF}}$' was interpreted as an activity (a dynamic proc-

ess without a specified endpoint), whereas *śpiewać piosenkę* 'sing~IMPERF~ a song', with a quantized NP was classified as an accomplishment ([+durative], [+dynamic], [+telic]). In order to meet the objectives of the test, the verb phrases constructed on the basis of the word lists discussed above were later on grouped as states, activities, accomplishments and achievements.

On determining the viewpoint aspect of the VPs, I was referring to a popular dictionary of Polish (Szymczak 1978). Besides, I relied on my own judgements and intuitions of other native speakers of Polish.

An interesting account of aspect in Polish was developed by Grzegorczykowa (1997). Grzegorczykowa (1997: 27) claims that Polish aspect can be considered in terms of prototypical and peripheral phenomena. According to her classification verbs can be divided into two categories: stative and dynamic atelics, and verbs of telic and atelic change. Statives and dynamic atelics (i.e. activities) are prototypical imperfectives, which either have no perfective counterparts (e.g. *umieć* 'can, be able to'; *zawierać się* 'be included in') or the perfectives from which they are derived function as pofective (e.g. *posiedzieć* 'sit for a while') or inchoative (e.g. *pokochać* 'begin to love'). Contrastively, verbs denoting change are prototypical perfectives. Such expressions as *kupić dom* 'buy~PERF~ a house', *przeczytać gazetę* 'read~PERF~ a paper' refer to specific telic events; at the same time they are members of prototypical aspectual pairs (14).

(14)   Polish aspectual pairs

(a)   kupić dom – kupować dom
       buy~PERF~ a house – buy~IMPERF~ a house
       'buy a house'

(b)   przeczytać gazetę – czytać gazetę
       PERF-read a paper – read~IMPERF~ a paper
       'read a paper'

As follows from the proposed taxonomy prototypical imperfectives are found among atelic VPs, whilst prototypical perfectives – among telic VPs. If learners of L2 Polish draw on the present division, it is certainly much easier for them to determine the viewpoint of prototypical combinations than of peripheral ones. In the task presented to the participants of the study test items were distributed almost evenly with regard to viewpoint and Aktionsart options (15-17).

(15)   W ostatnią niedzielę moja ciocia (zwiedzić) Warszawę. Telic, perf.
        Last Sunday   my aunt   visit~PERF~ Warsaw

(16)   W 1997 roku [my] (przybywać) do Wrocławia.   Telic, imperf.
        In 1997   [we] arrive~IMPERF~ in Wrocław

(17)   Wczoraj artysta (namalować) obraz i   (czuć się)   bardzo szczęśliwy.
        Yesterday artist PERF-paint picture and feel~IMPERF~ very happy
                         Telic, perf.   Atelic, imperf.

7. Results and analysis

Having analysed the obtained data I can quite safely state that the null hypothesis was confirmed. The results show a tendency of learners of L2 Polish to rely on inherent aspect in marking VPs for tense. Naturally, it was observed predominantly in beginners, although I found instances of falling back on semantic properties of verb phrases in the proficient learners as well.

Low-proficiency learners managed to achieve quite high accuracy in past tense marking on telic predicates (85 per cent), while atelic VPs were inflected for past in 65 percent. It is noteworthy that, accidentally, the informants received instruction on past tense usage immediately before the study was carried out and they were provided with opportunities to practise the new grammar in a variety of contexts. Actually, the vocabulary used in the task was selected from a word list summarising the material taught during the course.

1,230 responses were obtained in the beginner group. They were distributed quite unevenly with respect to inherent aspect. As it is often the case in Polish that changes of vowels in the verb stem occur when inflections are added, I passed over the lack of taking these into consideration when tense was marked correctly. Besides, I did not select a great number of verbs showing such features as it was not the goal of the study.

Table 4 displays the distribution of past tense morphology in the responses produced by the beginners. In relation to the Primacy of Aspect Hypothesis, it is quite striking that they scored for statives as high as for activities (65% for both categories). This might be due to the fact that stative VPs used in the task belong to basic verbs, very frequent in the input and marked for a variety of tenses, e.g. *mieszkać*~IMPERF~ 'live', *nazywać się*~IMPERF~ 'be called', but also quite consistently – with imperfective aspect. Therefore, they were not difficult for the participants. Achievement verbs (e.g. *zauważyć*~PERF~ 'notice', *spotkać*~PERF~ 'meet') received a slightly higher rate of past marking than accomplishments (e.g. *namalować obraz*~PERF~ 'paint a picture', *prasować ubrania*~IMPERF~ 'iron the clothes'), although both were considerably easy for the subjects.

Table 4. Distribution of past tense marking in the beginner group

Aspectual class	State	Activity	Accomplishment	Achievement
Percentage	65	65	82	88

Quite conversely, the proficient group performed in a target-like way as far as 98 per cent of the test items are concerned (Table 5). They produced 1,431 responses. Generally, they displayed almost no reliance on lexical aspect of verb phrases. They did not find achievements and accomplishments at all difficult. Nevertheless, their command of L2 Polish was not fully native-like as can be deduced from the percentages for states and activities (97% and 99%, respectively). While erroneous responses constitute 25 per cent in the beginners, they are the sole 2 per cent in the proficient group.

Table 5. Distribution of past tense marking in the proficient group.

Aspectual class	State	Activity	Accomplishment	Achievement
Percentage	97	99	100	100

The data illustrate a development of tense-aspect system in L2 Polish. Past tense marking spreads from prototypical contexts, i.e. achievement and accomplishment VPs to peripheral ones, i.e. states and activities (Li and Shirai 2000). In the process of acquisition, learners begin with recognising the relationship between achievement verbs and past, which share the features of punctuality, completion and anteriority; later on the connection becomes more detached and durative telics (accomplishments) are inflected for past. Finally, the peripheral combinations come into play. Thus, activities (dynamic, non-completive) and states (non-dynamic) are marked for past as last of all VPs. Certainly, the stages of acquisition are not clear-cut and entering a consecutive stage is not equivalent to completing a previous one. For instance, the beginner subjects might be close to the end of the 'achievement' phase; at the same time they are in the middle of acquiring past marking for state and activity verb phrases.

What is interesting, the upper-intermediate group seem to be guided by viewpoint aspect in a way, whereas the beginners rely on Aktionsart. Shifting the viewpoint from imperfective into perfective took place in the high-proficiency group. When the learners had to deal with non-prototypical arrangements of aspects (telic+imperfective, e.g. *publikować książkę*IMPERF 'publish a book', *zwyciężać*IMPERF 'win'), they sometimes shifted the viewpoint into perfective. This phenomenon may be a reflection of the order of aspect acquisition observed in children learning Polish as their mother tongue. Perfective viewpoint is acquired prior to imperfective, so it might be also the case in L2 acquisition. Additionally, the participants could have relied on the viewpoint which they perceive easy. Such aspect shifts, on the other

hand, were noticed in control group of native speakers of Polish asked to fill in the gaps in the same cloze test.

Quite contrastively, the beginners operated mostly on lexical aspect. One might suspect, then, that in early acquisition of L2 Polish Aktionsart is more congruent to learners than viewpoint is. Certainly, in prototypical combinations viewpoint and inherent aspect contribute to the desired interpretation of a VP to a similar degree, that is imperfective and atelic produce an expression that is (in learners' opinion) related to the present rather than to the past. The categories of perfective and telic, however, are generally linked to the past as they all (i.e. perfective, telic, past) display the same proto-features. In non-prototypical arrangements it is often the viewpoint that determines the ultimate properties of a VP, at least according to the upper-intermediate group of informants. On the whole, prototypical combinations of aspects were less difficult for the participants to deal with as compared to peripheral ones.

8. Conclusion

In the present study the Primacy of Aspect Hypothesis was being tested and the results confirmed its accuracy for Polish. At the same time, my research hypothesis was proved correct. Certainly, the more competent the speakers, the more seldom they rely on inherent aspect in tasks requiring the use of past tense morphology. The association between Aktionsart and tense in the upper-intermediate speakers of Polish was loose, although the informants have not got rid of the influence completely. The rate of errors related to lexical aspect was much higher in the beginner group than in the proficient one. However, at this stage of interlanguage the upper-intermediate learners of L2 Polish have not fully developed the imperfective viewpoint.

Apparently, the data I obtained can be explicated by the prototype account, formulated by Li and Shirai (2000), deep-rooted in the theory of human categorization by Rosch (1975). According to this explanation, each category has its prototypical members, displaying the greatest number of characteristic features typical for the given category. Yet non-prototypical members share fewer properties with other members of the category. In the case of tense and aspect acquisition, the prototypes of a category are first marked with specific morphology, and then the marking spreads to less prototypical members. Overall, the findings of the empirical study are in line with the trends observed in data on the Primacy of Aspect from other languages. The beginner participants of the study showed a preference for marking achievements and accomplishments with past tense, probably recognizing the prototypical exemplars of the aspectual categories. This explains why the telic verbal predicates in past tense obligatory contexts seemed less difficult than atelic VPs in such contexts. Of course, the results should be confirmed by other testing methods

and longitudinal observations. I suppose that analysing conversational data obtained from the same two groups could be especially interesting. The type of task they were presented with provided them with an opportunity to control and recheck their answers, whereas spontaneous speech production, where the level of self-monitoring is low, could result in lower percentages of correct responses.

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APPENDIX 1
Beginner test – selected items

Ponieważ dzisiaj (być)............ładna pogoda, Janek (spacerować)......................

Po tym zdarzeniu Anna (opowiadać)............ mi, kogo ona (spotkać)................ w kinie.

Maria teraz często (wymyślać)................. pytania, a jej ojciec (odpowiadać)....................... na nie.

Wczoraj artysta (namalować)................. obraz i (czuć się)...................... bardzo szczęśliwy.

Jan często (być)............. zmęczony, ponieważ (zostać)................. dłużej w pracy.

Dawniej [my] zawsze (chodzić).................... razem do parku na spacery.

W ostatnią niedzielę moja ciocia (zwiedzić)........................ Warszawę i (przyjechać)....................do nas na kolację.

Moja siostra i ja często się kłócimy. Dzisiaj rano też się tak (stać).............., a do tego [my] (przewrócić)........... dzbanek z kawą. Cały obrus (być)............... brudny.

W 1990 roku moja rodzina (mieszkać)................. w Krakowie. W 1997 roku [my] (przybywać)...................... do Wrocławia.

Już dawno temu Maria (czytać).................. tę książkę, ale nadal uważa, że jest to książka bardzo nudna.

Za godzinę Joanna (zjeść)............ obiad i [ona] (pójść)................. do kina.

APPENDIX 2
Upper-intermediate test – selected items

Kiedy wczoraj [ja] (bandażować).............. skaleczoną rękę mojej młodszej siostrze, przyszedł nasz tata i (powiedzieć)............... jej, żeby nie bawiła się więcej tak niebezpieczny sposób.

Piotr (publikować)................. swoją pierwszą książkę w 1990 roku. Teraz [on] (pracować).................... nad drugą częścią. W przyszłości [on] (wydać)............. wspomnienia wojenne swojego dziadka.

Nasza drużyna futbolowa (zwyciężać)................. w dwóch ostatnich meczach. Najlepsi piłkarze (objeżdżać).................... cały kraj i (grać)............. na wielu stadionach.

Anna nagle potknęła się i (runąć)................. jak długa. Po chwili [ona] (przewrócić się)......... jeszcze raz. Później [ona] (zastanawiać się)................., jak to się mogło stać.

Maria obecnie (pisać)................. nudne artykuły do gazet, ale pięć lat temu (ilustrować)............ książki dla dzieci.

Rok temu to miejsce nie (nadawać się)...................... do zamieszkania, (mieścić się).................... tu tylko stara poczta i sklep moich znajomych. Dziś (mieszkać)................... tu dwie rodziny.

Podczas niedzielnych zakupów moja siostra (przeziębić się)........................... i teraz [ona] (leżeć)...................... w łóżku. Przez ten czas [ona] (czytać)........................ bardzo ciekawą książkę i najnowsze wydanie swojej ulubionej gazety.

Kiedy [ja] (chować)................. pieniądze do szuflady, nagle zadzwonił telefon.

Po chwili Piotr (skończyć)............................. list i [on] długo (nalepiać)................. znaczek, który nie chciał się przykleić do koperty.

Na Boże Narodzenie zeszłego roku moja mama nie (piec)......................... ciast. [My] (kupić)................ wszystko w cukierni.