

THE ROLES OF -YWAĆ IN THE POLISH
ASPECTUAL SYSTEM

by

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ABSTRACT

The suffix *-ywać* has been described as imperfective, iterative, and habitual. Descriptively, *-ywać* behaves differently depending on whether or not it is suffixed to a verb with a perfectivizing prefix. If it is suffixed on to a verb with a perfectivizing prefix, then it is said to be imperfective. If it is suffixed on to a verb without a prefix however, it is said to be iterative or habitual.

This thesis uses aspectual diagnostics to examine the function of *-ywać* in both paradigms, as well as claims about the perfectivizing VMs that attach to the verbs with the suffix. Crosslinguistic parallels from Inuktitut are also examined with respect to the Polish data.

TABLE OF CONTENTS

ABSTRACT.....	iii
ACKNOWLEDGEMENTS.....	vi
Chapters	
1. INTRODUCTION	1
1.1 More on the Allomorphy	3
2. POLISH ASPECT OVERVIEW	6
2.1 Polish Perfective~Imperfective Opposition.....	7
2.2 <i>-ywać</i>	10
2.3 Diachronic Facts and Problems	14
2.4 How These Verb Forms Are Synchronically Used.....	15
3. LITERATURE REVIEW	19
3.1 Lexical or Sentential Aspect?	20
3.2 Młynarczyk (2004) Overview.....	25
3.2.1 Młynarczyk (2004) Empty Prefixes	29
3.3 A Different Slavicist Approach: Bogdan and Sullivan (2009).....	34
3.4 Summary of Literature Review.....	39
4. MORE ON MORPHOLOGICAL CATEGORIZATIONS	41
4.1 Secondary Imperfectives and Empty Prefixes	41
4.2 Iconicity	42
5. GENERATIVE PERSPECTIVES ON ITERATIVES, PERFECTIVES, AND IMPERFECTIVES.....	44
5.1 Aspect	44
5.1.1 Comrie (1976)	44
5.1.2 Smith (1991).....	46
5.1.3 Klein, Li, and Hendriks (2000)	47

5.2 Iterativity.....	49
5.2.1 Comrie (1976)	49
5.2.2 Bybee, Perkins, and Pagliuca (1994).....	50
5.3 Summary of Various Generative Perspectives	51
6. DIAGNOSTICS.....	52
6.1 Perfective Diagnostic	52
6.2 Another Restriction on Perfectives not Covered by These Diagnostics	53
6.3 Imperfective Diagnostic.....	54
6.4 Iterativity Diagnostic	57
6.5 <i>-ywać</i> Without a Prefix Versus Imperfective.....	59
6.6 Conclusions of Diagnostics.....	62
7. DISCUSSION, ADDITIONAL POLISH DATA, AND CROSSLINGUISTIC DATA...64	
7.1 Imperfectives.....	65
7.2 Empty Prefixes?	66
7.3 <i>-ywać</i> 's Role.....	70
7.4 <i>-ywać</i> as an Antimorpheme.....	71
7.5 <i>-ywać</i> as a Suffix That Adds Meaning	73
7.6 <i>-ywać</i> as Two Different Homophonous Suffixes.....	82
8. CONCLUSIONS	84
8.1 Conclusions on Empty Prefixes	84
8.2 Questions Regarding <i>-ywać</i>	86
8.3 Areas for Further Research	87
8.4 Final Remarks	88
REFERENCES	91

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CHAPTER 1

INTRODUCTION

Polish aspect, and Slavic aspect in general, has been a source of disagreement in many descriptions of and theories about aspect. The use of terms and assumptions behind what exactly Polish imperfectives and perfectives mean often change from author to author.¹ Central to my thesis will be the interaction between the Polish imperfectivizing suffix -*ywać* and Polish aspect.

The Polish -*ywać* suffix and its allomorphs (*adać*, *iać*, *ijać*) have been generally claimed to form imperfectives from perfectives (Bogdan & Sullivan, 2009; Labenz, 2004; Młynarczyk, 2004). The suffix is also central to an aspectual diagnosis used in some analyses (Labenz, 2004; Młynarczyk, 2004), namely the secondary imperfectivization test, which is described in more detail in Sections 3.21 and 4.1.

The suffix has been described as “anti-dynamic” (Bogdan & Sullivan, 2009),

¹ To name one example, Comrie (1976) labels habituals as a subcategory of imperfectives alongside progressive and nonprogressive actions. Młynarczyk (2004), on the other hand, says that “present tensed imperfective verbs can be used either to assert that a process is ongoing at the present moment... or that a state holds at the present moment.” Smith (1991) says that imperfectives “focus on part of a situation, including neither initial nor final point,” while Bogdan and Sullivan (2009) break down imperfectives into two types of imperfective, “iconic” and “derived” (iconic are without a static~dynamic setting, and “derived” are antidynamic), and habituals as a type of “static” action; perfectives are “dynamic.” Then there are Germanicist approaches that approach Slavic aspect from the perspective of Aktionsart where aspect is inherently tied to other elements like definiteness.

“iterative” (Młynarczyk, 2004), and “habitual” (Comrie, 1976). In section 6.3, I show that *-ywać* (both *-ywać* forms with prefixes, and *-ywać* forms without prefixes) does not fit the Bybee, Perkins, and Pagliuca (1994) definition of iterative.

For ease and simplicity, I have focused this thesis on Polish, the Slavic language with which I have the most competence and familiarity. The implications and crosslinguistic parallels of Polish *-ywać* however, will likely hold true for many other Slavic languages. The data in Chapters 3 and 6 is often from other Slavic languages, namely Czech and Russian, which either I, or other authors (e.g., Młynarczyk, 2004) have translated into Polish.

The *-ywać* suffix behaves differently depending on whether or not the verb has a verbal modifier, which is the crux of the issue. Put simplistically, when *-ywać* is attached to a verb with a verbal modifier, the verb functions as an imperfective. However, when *-ywać* is attached to a verb that is already imperfective (or has no verbal modifier), the verb instead has a repetitive sense. The paradigms are summarized in the following example:

- (1) a. *czytać* ‘read (impf)’
 b. *prze-czytać* ‘read (perf)’
 c. *prze-czyt-ywać* ‘read ahead (impf)’
 d. *czyt-ywać* ‘read from time to time (read (habitual?))’
- (2) a. *jeść* ‘eat (impf)’
 b. *z-jeść* ‘eat (perf)’
 c. *z-j-adać* ‘finish eating (impf)’
 d. *j-adać* ‘eat from time to time (eat (habitual?))’

The central questions are the following: (1) Is the property of *-ywać* and its allomorphs imperfectivizing, or is it something else? (2) Given that the semantic contribution of

-ywać when added to prefixed verbs appears different from its semantic contribution when added to unprefixed verbs, is a unified treatment of *-ywać* possible? Or must these be treated as two homophonous but distinct elements? (3) Are there any cross-linguistic parallels?

A fourth question, unrelated to the other three arising from the data, as well as observations from other authors especially Bogdan and Sullivan (2009) is: (4) If the verbal modifiers *prze-* in (1-b) and *z-* in (2-b) are only perfectivizing and, per Młynarczyk (2004), add no other semantic content to the verb, why does (1-c) and (2-d) have a different meaning from the bare imperfective of the verb? Is the position that there are “empty prefixes” (or prefixes that do not contribute any semantic meaning to the verb) viable?

In Chapter 2 I go into more detail on the interaction of perfectivizing prefixes with imperfectivity and *-ywać* as well as some diachronic facts. In Chapter 3 I outline the primary differences between Slavicist and Germanicist approaches, as well as their implications, and various claims as to the productivity of *-ywać*. In Chapter 4 I go into further detail on empty prefixes and iconicity. In Chapter 5 I introduce generative perspectives on aspect. In Chapter 6 I use diagnostics found in those generative perspectives. In Chapter 7 I question the notion of the empty prefix, and use cross-linguistic data for situations where a suffix behaves similarly to *-ywać*. In Chapter 8 I provide a conclusion.

1.1 More on the Allomorphy

While the allomorphy of *-ywać* itself, and person marking with those allomorphs, is tangential to the topic of this thesis, a discussion of it is necessary to make the data clearer before we go into the meanings and functions of *-ywać*, and how it interacts with Polish verbs. The allomorphy itself has not been described very thoroughly in the literature.²

The name I will use to describe various suffixes, *-ywać*, is the allomorph that is suffixed on to Polish *-ać* and *-ować* verbs. It is probably more accurate to describe this allomorph as *-yw-*,³ but for simplicity, and to stay consistent with the literature, I will call it *-ywać*. For *-ać* verbs, the *-ywać* affix occurs after the root. Thus *pis-ać* ‘write-inf’ becomes *pis-ywać*. For *-ować* verbs, unlike *-ać* verbs, the *-ywać* affix occurs after the root, and *-ow*. The verb *za-plan-ow-ać* ‘VM-plan-inf’ becomes *za-plan-ow-ywać*. If the root ends in a velar obstruent, then the suffix *-ywać* is spelled and pronounced *-iwać*.⁴ The verb *wy-szuk-ać* ‘search/search again-inf’ becomes *wy-szuk-iwać*. Młynarczyk called this *-ywać* allomorph the “most expansive variant” that pushed out its competitors.

With the exception of *bywać* ‘be-*ywać*’, the prescriptively correct present tense and person marking for *-ywać* verbs is *-uję* 1sg, *-ujesz* 2psg, *-uje* 3psg, *-ujemy* 1ppl, *-ujecie*

² The allomorphy data are based on my own knowledge as an L2 speaker of Polish. As far as I know, no one has discussed the allomorphy outside of a language-learning context.

³ In actuality, the *-yw-* affix is inserted between the root, and the *-a-* thematic vowel, and then the infinitival suffix. *-a-* happens to always be the thematic vowel that comes after the *-yw-* allomorph in the infinitival form. This level of Polish morphology, while interesting, is largely inconsequential to the topics discussed in this thesis.

⁴ In Polish orthography <i> represents a front tense vowel [i], while <y> represents a lax vowel [ɪ]. Traditionally it was assumed that <y> was a mid high vowel [ɨ] like in Russian, but acoustic analyses by Sanders (2003) show it is much closer to the English-like [ɪ] vowel in ‘bit.’ After /k/ [ɪ] becomes [i].

2ppl, -ują, 3ppl, thus the 1psg present tense marking for ‘I plan-*ywać*’ is *zaplano-uję*. In prescriptively correct Polish, *być* ‘be’ conjugates as a regular *-a-* themed verb when suffixed with *-ywać*, so the 1psg of ‘I be-*ywać*’ is *byw-am*.

In my interactions, many native Polish speakers seem to have analogized *-ywać* to conjugate as a regular *-a-* themed verb. I encountered this often with my informants. For these speakers, ‘I plan-*ywać*’ would be *zaplanow-yw-am*. This conjugational paradigm is easier to follow because it is transparently obvious that the *-ywać* affix is in the verb, however I will use the prescriptively correct conjugation throughout the thesis.

The *-ijać* or *-iać* allomorph is suffixed onto *-i-* themed verbs or *-y-* themed verbs. The *-ywać* form of *pić*, ‘to drink,’ is *pi-jać*; it agrees with person as a regular *-a-* themed verb. ‘I drink-*ywać*’ is *pi-j-am*.

-adać is the final predictable allomorph of *-ywać* we will discuss in depth. It is suffixed onto verbs whose infinitives end in a consonant cluster. Generally, *-adać* replaces the final vowel in the root: *jeść*, ‘to eat,’ has the *-ywać* form *jadać*, *paść*, ‘fall,’ has the *-ywać* form *padać*. These have regular *-a-* themed person marking: ‘I eat-*ywać*’ is *jad-am*.

There are also some irregular allomorphs that generally occur when the verb has a specific root. One example of this *dać*, ‘give (perf),’ has the *-ywać* form *dawać*. All verbs with the root *dać* will have *-(a)wać* as their *-ywać* form. Similarly, all verbs with the root *-stać* as part of the verb have the *-ywać* form *-stawać*. Some roots with a final nasal vowel *-ą* will have the *-ywać* form *-ynać*. Other than the allomorphs discussed in this section, none will appear in the data (for a more complete list of all possible *-ywać* forms see Młynarczyk [2004, p. 138]).

CHAPTER 2

POLISH ASPECT OVERVIEW

In this section we will go over the basics of Polish aspectual distinctions, or at least what is generally claimed about those oppositions in textbook descriptions of Polish such as in Młynarczyk (2004), Labenz (2004), and Bogdan and Sullivan (2009), as well as claims about the diachronic developments of this system.

For now, in a more general description of aspect, imperfective describes a wide variety of situations where verbs have an internal composition: reference is made to an “internal portion of an action” (Comrie, 1976, p. 4). For example, progressives and habituais fall under imperfective in Comrie (1976). Smith (1991) describes imperfective events as more open while perfective events are more closed:

Sentences in the perfective viewpoint present Activities as bounded, that is, with arbitrary endpoints. Sentences in the imperfective present Activities as unbounded. (p. 49)

We will see more on the ways different authors view aspect in Chapter 5. The important distinction between perfective and imperfective events is that perfective events are more closed and external, while imperfective events are open and internal.

2.1 Polish Imperfective~Perfective Opposition

In textbook descriptions on Polish aspects like Małolepsza and Szymkiewicz (2010) it is claimed that most Polish verbs have at least two morphological forms in aspectual opposition. These two aspects are most often called *perfective* and *imperfective*.

These perfective and imperfective forms can occur in infinitives, imperatives, and the past and future tense. Perfectives cannot really bear a present tense meaning, although they can have present tense person marking. When perfectives bear present tense person marking, they have a future tense meaning:

(3)

	Imperfective	Perfective
	<i>pisać</i> ‘write (impf)’	<i>napisać</i> ‘write (perf)’
past	<i>pisał</i> ‘wrote (impf)’	<i>na-pisał</i> ‘wrote (perf)’
present	<i>piszę</i> ‘write (impf)’	X (= future)
future	<i>będzie pisać</i> ‘will write (impf)’	<i>na-piszę</i> ‘will write (perf)’

The present tense morphology is evident from *napisz-ę* (perfective future) having the same person marking as *pisz-ę* (imperfective present). *Napisz-ę*, despite its present tense marking, however, means that the (perfective) writing will happen in the future.

Imperfective futures are formed with auxiliary verbs (as you can see in the “imperfective future” cell. “*Będzie*” is the future tense 3psg conjugation of “be” and functions as an auxiliary). *Pisz-ę*, like other Polish verbs not marked for perfectivity, can bear many meanings including habitual (for more on this see Sections 6.2 and 7.1).

Perfectives are generally formed with verbal prefixes (as in *na-pisać* above). They can

also be formed through suppletion (as in *brać~wziąć* ‘take imp~perf’), and through changes in the thematic vowel or suffixation (as in *dawać*, ‘give impf’ from *dać*, ‘give perf,’ or *wrócić*, ‘return (perf),’ *wracać*, ‘return ‘impf’). Historically, these perfectivizing prefixes were prepositions, and many are synchronically identical to prepositions, or in other words homophonous with prepositions. *na-* for example, is homophonous with *na*, ‘on,’ other prefixes like *w-* are homophonous with *w*, ‘in,’ *za-* is homophonous with *za*, ‘behind,’ *z-* with *z*, ‘with,’ *do-* with *do*, ‘to,’ *o-* with *o*, ‘about,’ and so on. Polish speakers without linguistics backgrounds seem to be aware that they are homophonous with prepositions (more on this in section 7.2). It is not true that all perfectivizing prefixes are homophonous with prepositions: *wy-* for example has no homophonous preposition.

The fact many of these prefixes also change the meaning of a verb has become an important part of both Slavicist and Germanicist approaches to Slavic aspect (e.g, Młynarczyk [2004] and Schoorlemmer [1995]). For that same verb *pisać* above using the verbal modifier *o-* as in *o-pisać* causes a change in meaning. Now *opisać* means ‘copy (perf).’

In some cases there are synchronic connections in terms of meaning between these verbal modifiers and their respective prepositions, similar to phrasal verbs in Germanic languages. In a few cases, we can see synchronic alternations similar to the positional changes of verbal modifiers (VM) in English, e.g., *I warmed the coffee up* vs *I warmed up the coffee* are both similar if not identical in meaning:

(4)

a. Siedzia-ł-em w bibliotec-e *przez* dwie godziny

sat-PAST-1sg in library-LOC for two hours

b. *prze*-siedzia-ł-em w bibliotec-e dwie godziny

VM-sit-past.1sg in library-LOC two hours

‘I sat (perf? impf?) in the library for two hours’

The interplay between the preposition and an object, and the prefixed verb and the object, perhaps serves the same function at least with this particular verb (like English, these verbal modifiers are highly idiomatic, more in Section 7.2). Note: Polish grammars would call a) imperfective and b) perfective, and the context of *two hours* is not intended as a diagnostic for aspect in this example, but is merely an element modified by the preposition *przez*. Some of my informants seemed much less certain as to whether it is perfective or imperfective, at least in the past tense.⁵ With more context it seems that (2-b) is more likely to be perfective, as (2-b) likely could not imply that the person is still in the library, while (2-a) can imply that the person is still in the library; again though, this needs more context. Morphologically, *siedzieć*, ‘sit,’ is imperfective (it lacks a perfectivizing prefix), but it is not clear (except with more context) whether this is to be interpreted as an imperfective (more on context and imperfectives from experimental data in 7.1).

⁵ When I posed the question “does *prze-czytać* ‘VM-read’ work the same way? Can I say ‘*czytałem książkę dwie godziny*’ (read book for two hours)’ vs ‘*przeczytałem książkę dwie godziny* (VM-read read book two hours)’ to three of my informants, they unanimously rejected the second, saying variations of something like “*przeczytać* is perfective, you need to use ‘*w dwie godziny*’ (in two hours).” The likely reason *siedzieć-prze-siedzieć* ‘wait (impf~perf)’ can take two hours and *przez* is that, morphologically speaking, *dwie godziny* is accusative. It is essentially the direct object of ‘wait.’ For ‘read,’ however, the direct object is what was read, and the time it took is not in the accusative and usually needs a preposition.

Returning to *the pisać~napisać~opisać* example we have *opisać*, ‘copy,’ a perfective verb. If we conjugate *opisać* in the present tense (per the table) *opiszę*, it will have a future tense perfective meaning.

(5)

(ja) opisz-ę książk-ę
 I copy-1sg book-FEM.ACC
 ‘I will copy the book’

How do we then get a present tense/present imperfective sense out of this verb? The answer lies in the next section.

2.2 -ywać

To make the verb *opisać*, ‘copy,’ imperfective we can add a suffix *-ywać*; this suffix is morphologically marked, and under an approach focusing on morphological additions, or the lack of morphological additions thereof, would not be basic:

(6) *o-pis-ywać* ‘copy (impf)’

(ja) o-pis-uj-ę książk-ę
 (I) copy-ywa-1sg book-FEM.ACC
 ‘I am copying the book’

Most verbs that entered into Polish from Proto-Slavic as perfective take an often synchronically irregular/nonproductive variant of the *-ywać* suffix such as *-awać* to become imperfective (for more see Townsend and Janda [1996]). *Dać*, ‘give (perf),’ for example, has the perfective *dawać*. Others, such as *wziąć*, ‘take (perf),’ and *brać*, ‘take (impf),’ have complete suppletion of the root. Bogdan and Sullivan (2009) call this group of perfectives with no prefixes *iconic perfectives*, or essentially morphologically basic perfectives (more in 3.3); importantly however, this group of words is irregular.

According to Młynarczyk (2004) and Labenz (2004), perfectives like *opisać* ‘copy’ can be reimpfektivized (assuming the direction of derivation is imperfective → perfective → *ywać* imperfective) using the *-ywać* affix to *opis-ywać* because their prefixes have some semantic content in addition to simple perfectivity; *napisać*, ‘write (perf),’ cannot be reimpfektivized to **napisywać* because the *na-* prefix is semantically ‘empty’ (as in devoid of meaning other than perfectivity). Their claim can be summarized in the following example:

- (7)
- a. *pisać* ‘write (impf)’
 - b. *napisać* ‘write (perf)’
 - c. **napisywać*
 - d. *o-pisać* ‘copy (perf)’
 - e. *o-pisywać* ‘copy (impf)’

In addition to perfectivizing the verb *pisać* ‘to write,’ in c) and d), the verbal modifier *o-* in this case changes the meaning of the verb. This is why Młynarczyk (2004) claims that *opisywać*, ‘copy (impf),’ is possible while **napisywać* is not. We cannot simply remove the verbal modifier in *opisać*, ‘copy,’ to get an imperfective like we can for *pisać~napisać*, ‘write’; if we remove *o-* from *opisać*, ‘copy (perf),’ the result is *pisać*, ‘write (impf).’ The meaning change is relevant for *-ywać* because VM make the verb perfective in addition to changing the meaning. Now we have a verb, ‘copy,’ that is, importantly, perfective on its own. In order to make it imperfective, and not perfective, *-ywać* or one of its allomorphs is affixed to the verb.

As stated previously, for irregular verbs that are already perfective without any verbal modifiers, we add *-ywać* or an allomorph of *-ywać* to make it imperfective (similar to example 5 but without a VM):

(8)

- a. *dać* ‘give (perf)’
- b. *dawać* ‘give-impf’ (give-ywać)

If this were the end of the story, it would be complicated, and there would already be room for disagreement about whether *opisywać*, ‘copy (impf),’ counts as a morphological change to *pisać* ‘write (impf),’ because it shares the same root, or whether it should be analyzed as two different lexemes, but would make sense at least descriptively:

(9)

- a. verb imperfective (the bare verb)
 - VM-verb perfective (the verb with a verbal modifier)
 - VM-verb-ywać secondary imperfective (reimperfectivized imperfective)
- b. *pisać* ‘write (impf)’
 - na-pisać* ‘write (perf)’
 - o-pisać* ‘copy (perf)’
 - o-pis-ywać* ‘copy (impf)’

One major complication, however, is that the -yw/-ywać suffix, and its allomorphs, can also be attached to bare imperfectives in many cases, such as with high frequency verbs, for example, *write*, *eat*, *drink*, *read*, *sleep*. When this happens, Młynarczyk (2004) claims the form is ‘iterative’:

(10)

- a. *pisać* ‘write (impf)’
- b. *pisywać* ‘write (iter)’

(11)

- a. *czytać* ‘read (impf)’
- b. *czytywać* ‘read (iter)’

We will see in Section 6.3 that perhaps iterativity is not the most accurate, or at least

unambiguous label for this. Suffice it to say for now, these verbs are more marked in the past, and they usually cannot be used with small increments of time (e.g., I read-*ywać* #for one day). The longer the increment of time, the more acceptable my informants seem to find these.

Traditional Polish grammars classify constructions like *pisać~pisywać* in (10-a & b) and *czytać~czytywać* in (11-a & b) all as ‘Niedokonany’ (lit not-completed); this same grammatical term is used for both without making any distinction between the two. In dictionaries, they are generally glossed using the phrase *od czasu do czasu* ‘from time to time’; for example, *czytywać: czytać od czasu do czasu* ‘to read-*ywać: to read from time to time.*’

To summarize, Młynarczyk's (2004) description of the Polish verbal complex would be as follows:

(12)

- a. Verb: imperfective
- b. VM-Verb: perfective
- c. VM-Verb-*ywać*: imperfective
- d. Verb-*ywać*: iterative

The paradigm in (12-a) is the simple verb stem, unmodified with either a perfectivizing prefix, or *-ywać*. (12-b & c) both have VMs as prefixes, while (12-c) has the suffix *-ywać*. (12-d) is the aforementioned *-ywać* attached to a stem without a verbal modifier. As we will see in later sections, the pattern in (12-d) is believed by Bogdan and Sullivan (2009) to be productive. For Młynarczyk (2004), the (12-d) case is more of a stipulation. It does not play a role in her aspectual model of Polish, but exists as a complication outside of her description.

2.3 Diachronic Facts and Problems

The literature (Klemensiewicz et al., 1965; Młynarczyk, 2004; Rospond 1971) generally claims that the Polish imperfectivizing suffixes were diachronically iterative at one point. Młynarczyk (2004) claims that these iterative suffixes were essentially ‘hijacked’ (to use her phrasing) to be later used as imperfectivizing suffixes:

The origin of suffixal aspectual formants can be traced back, more or less directly, to theme-forming morphemes of Proto Indo-European. Three suffixes should be mentioned as the most important and most productive among the suffixes that were hijacked for aspectual pairing: *-ja-*, *-va-*, *-no-*.

...The formant *-va-* later developed into *-wa-*. It was even more clearly distinguished and more expansive than the formants *-ja-* and *-a-*. It also coded for iterated and ongoing events. It formed the basis for a couple of other formants that developed from it in the process of morphological perintegration and absorption — in particular, it formed the basis for the absorptive formants *-ava-* and *-yva-*, which later collapsed with *-ova-* (with its original structure *-ov-a-*) that was a theme of a certain conjugational class, and by analogy got directly hijacked for the purpose of imperfectivisation. Formant *-ywa-*, as the most expansive variant of *-wa-*, later started to push out its competitors. The descendants of *-wa-* got into close interaction with *-a-*. (p. 19)

Młynarczyk (2004, p. 20) provides some Proto-Slavic examples such as **iscelel-ja-ti~*iscel-i-ti* ‘to cure.’ Essentially, Proto-Slavic suffixes for iterated events were grammaticalized as imperfectives, or minimally, were used to form imperfectives.

Młynarczyk (2004) goes on to say, however, any appearance of this would be historical residue:

Sometimes a single morphological operation can be used in several ways semantically... the class5 verbs are imperfectivized by morphonological changes, and in many cases this amounts to using *-yw-* as a suffix. But this same suffix may be applied to some other verbs to produce a different semantic effect: we can also suffixise imperfective *pisac* ‘to (be) writ(ing)’ (a class3 verb) by *-yw-*, an operation which results in *pisywac* ‘to write from time to time/have a habit of writing’ (that is, with some verbs *-yw-* suffixisation can be used to form a verb with an iterative/habitual reading). But such combinations are not relevant to our classification and are not included in the table. (p. 112)

Given that, in Młynarczyk’s own data, the *-ywać* suffix (and its allomorphs) still have

an ‘iterative’ meaning when a verb does not have an aspectual prefix, this timeline of events is troublesome perhaps even if we accept her stipulation that these forms are not productive. Bogdan and Sullivan (2009) on the other hand, claim that these are productive, but that they are often viewed as prescriptively wrong and that many iterative verbs are not in dictionaries (Bogdan and Sullivan claimed these are marked imperfectives, rather than iteratives; more in Chapter 3). They viewed instances where a verb lacked a form with an *-ywać* suffix as *lexical gaps* (more in 3.3).

2.4 How These Verb Forms Are Synchronically Used

As previously described, many Polish verbs have a morphologically unmarked form that is described as imperfective, and a morphologically marked form that is described as perfective. The most basic paradigm is described as follows:

(13)

czytać ‘read (impf)’

prze-czytać ‘read (perf)’

Prze-czytać, ‘read (perf),’ is not morphologically basic, and is perfective. These are often used to describe an action that was completed one time. It is possible to use perfectives to describe actions that were completed multiple times, but it is often marked when the direct object is destroyed (or otherwise undergoes an action that cannot be completed twice on the same object):

(14)

a. z-jad-ł-em kanapk-ę

VM-eat-past-1sg sandwich-ACC.FEM

‘I ate (perf) the sandwich.’

b. #dwa razy z-jad-ł-em kanapk-ę

two times VM-eat-past-1sg sandwich-ACC.FEM

#‘I ate (perf) the sandwich two times.’

c. czyta-ł-em książk-ę

read-past-1sg book-ACC.FEM

‘I read (perf) the book.’

d. dwa razy prze-czyta-ł-em książk-ę

two times VM-read-past-1sg book-ACC.FEM

‘I read (perf) the book two times’

In both Polish and the English translation, (14-b) implies the sandwich was the same exact sandwich, and (14-d) implies it is the same book. It is possible to have interpretations of (14-b) where *kanapka* ‘sandwich’ implies a specific *type* of sandwich (this can happen as well in English too: ‘I ate the (turkey) sandwich at subway two times’). My hypothesis for this is that Polish perfectives do have a specificity (perhaps definite) function as well where the action is specified to a particular direct object or a particular time. Imperfectives on the other hand are open to interpretation when it comes to specificity.

Bogdan and Sullivan (2009, p. 13) noted something akin to example 12 in their data, however they did not discuss it further:

(15)

Nosi-ł wilk razy kilka, po-nies-ł-i i wilka

carry-Past.MASC wolf times many VM-carry-Past-PL and wolf-ACC.MASC

‘The wolf carried (impf) [livestock] away many times, then [the farmers/people] carried (perf) the wolf away’

Despite the fact both of the carry actions happened in the past, and were both

completed, one is imperfective when it is done multiple times (the wolf carrying away livestock), while the other is perfective and is only done once (the people/farmers carrying away the wolf).

As demonstrated from the last two examples, “imperfectives,” which *-ywać* is often used to form, are used for more than what things the cross-linguistic term *Imperfective* usually describes. In Polish, in addition to describing completed repeated actions (even two-time repeated actions), they are used for negating the success of an action, making progressive actions, habitual actions, describing general facts, as well as many other uses:

(16) Negating the success of an action (data from Bogdan and Sullivan [2009, p. 15]):

Q: Did your daughter take the driving exam yet?

A: Z-da-wa-ł-a⁶ jeszcze ma z-dać
 VM-give-ywa-past-FEM still has-3sg VM-give [z-dać/z-dawać=
 ‘pass’/take]

‘She failed it. She still has to pass (perf) it’ (lit ‘she passed [impf]. She still needs to pass [perf]’)

(17) Progressive actions:

Siedzia-ł-em na krześl-e kiedy...
 sit-past-1sg.MASC P chair-LOC when...
 ‘I was sitting on the chair when...’

(18) General facts & habitual actions:

studenc-i czyta-ją książk-i
 student-PL read-3ppl book-PL
 ‘students read books’

⁶ Bogdan and Sullivan glossed *z-dawać/z-dać* as ‘take,’ Polish dictionaries often define *z-dać* as something like *pass*. As stated above, it may be more useful to think of these verbs with modifiers on them as different lexemes rather than morphological alternations on a single lexeme. In English we have similar cases, so for example ‘count on’ means something completely different from ‘count.’

Given that imperfectives are often morphologically unmarked or morphologically basic, it is somewhat unsurprising that they have more possible uses than perfectives.

Surprisingly however, *-ywać* imperfectives, while not being morphologically basic, also have many possible interpretations.

Verbs with the suffix *-ywać* attached to an imperfective have the most restricted usages. I will go into more details on this in Section 6.3 and 6.4, suffice it to say for now that imperfective-*ywać* verbs are used for a small subset of the possible uses of bare imperfectives (namely habitual or repeated actions). They are not used to describe an action currently in progress, a successful action, or to negate the success of an action. Possible explanations for this are discussed in Chapter 7, as well as cross-linguistic examples of similar phenomena.

CHAPTER 3

LITERATURE REVIEW

Generally, the *-ywać* suffix and its allomorphs are either ignored in theories on Slavic aspect (e.g., Verkuyl, 1993), or they are used primarily as a tool to diagnose some part of the system (Labenz, 2004; Młynarczyk, 2004). Theories on Polish aspect often have the goal of either finding parallels with Germanic determiners, telicity, and Aktionsart, or disproving those proposed parallels.

Generative formalizations of aspect are discussed in further detail in section 5.1. For now we will use the definition found in Smith (1991):

Perfective viewpoints focus on the situation as a whole, with initial and final endpoints.

Imperfective viewpoints focus on part of a situation, including neither initial nor final point.

Neutral viewpoints are flexible, including the initial point of a situation and at least one final stage. (p. 6)

In the next section we will discuss lexical approaches to Slavic aspect, and sentential approaches to Slavic aspect. Essentially, lexical approaches propose that Slavic aspect is lexically encoded. In these approaches, a Polish verb has a particular aspect regardless of the rest of the sentence or other elements in the utterance. In sentential approaches, aspect is assigned by other elements within a sentence, such as definite marking on a DP, and the verb essentially agrees with the aspect that other elements assign.

The primary ways in which both of the approaches to Polish aspect in the next section differ from this Smith (1991) definition are as follows:

- Lexical aspect approaches tend to ignore Polish imperfectives that have repetition. Młynarczyk (2004) in particular does this for methodological reasons.
- Sentential aspect approaches conflate specific quantities, definiteness, and telicity with aspect, and treat those as part of the same system.

3.1 Lexical or Sentential Aspect?

One of the more contentious debates is whether Slavic aspect is lexical (encoded on the verbs), as stated above, or sentential. This is somewhat tangentially related to the *-ywać* suffix, but because it may have implications for later sections, a brief summary of some⁷ of the literature on the topic is appropriate. These implications will be spelled out explicitly. Lexical aspect is essentially the proposition that verbs in Slavic languages have aspect lexically encoded; sentential aspect on the other hand is the (more universal) proposition that aspect is determined by nonverbal elements: In other words, they are elements within a sentence like determiners and quantifiers.

Verkuyl (1993), also quoted in Bogdan and Sullivan (2009), proposes a cross-linguistic model of aspect where aspect is sentential and plays a role in telicity.

In my view, Vendler's classification runs afoul of the evidence emerging from the linguistic tradition in the first half of this century that aspect is essentially a non-lexical property of the sentence structure, both in non-Slavic and Slavic languages. Yet many semanticists use it as part of their aspectual theory. The

⁷ In addition to what is discussed here, An Incremental Theme discussion, similar to the [+/-SQA] discussion, played out in papers written in German on Czech data, namely Krifka (1989) and then in later responses in English, namely Filip (1993). A full summary and review of those can be found in Młynarczyk (2004).

two things cannot be married: if aspect formation is a process at the structural level it is hard to see how a lexical division can be maintained. (Verkuyl, 1993, pp. 3-4)

Schoorlemmer (1995) argued that:

If aspect were a lexical feature there seems to be no reason why it should derive pairs of verbs that only differ in aspect value. The assumption that aspect is a syntactic phenomenon does account for the formation of aspectual pairs with such verbs. (1995, p. 88)

One of the more powerful examples used illustrate this is:

(19)

- a. Judith ate a sandwich.
- b. Judith ate sandwiches.
- c. Judith ate bread.
- d. Judith ate no sandwich.
- e. Judith ate three sandwiches.

This set of data led to the thesis that the aspectuality of the terminative sentences is compositionally formed. The line of argument is that *eat* being constant in (37)-(39) [that is, our examples in (19)], the aspectual difference between these sentences must be attributed to a difference between the NPs *sandwiches*, *three sandwiches* and *a sandwich*. This difference was explained in terms of quantification and the delimitation of mass: *sandwiches* in (37) [that is, our (19-b)] pertains to an Unspecified Quantity of sandwiches, *three sandwiches* in (38) [that is, our (19-e)] and *a sandwich* in (39) [that is, our (19-a)] to a Specified Quantity of sandwiches. (Verkuyl, 1993, p. 16)

The nonverbal elements in a Verkuylian approach are what determines aspect.

Intertwined within the arguments for sentential aspect are [+/- SQA] (Specific Quantity of A) features. An object with [+SQA] has a specific cardinality, and because of this, the action that happens to an object is bounded by the quantity of objects.

In a Verkuylian approach sentences that bear perfective meaning are [+SQA] while imperfectives are [-SQA]. Aspect is licensed/assigned at the sentential level. The fact that a verb morphologically agrees with that is incidental. Essentially, Verkuyl claims there is

an aspectual difference between examples 19 (a-d) above despite the fact that the verb is morphologically in the simple past for all. This becomes relevant because Verkuyl (1993) extends this claim to Russian. In Verkuyl's model, a perfective sentence in Slavic languages was [+SQA] while an imperfective is [-SQA]. The difference between the two can be summarized in the next example (originally in Russian; translations from Russian to Polish are by me):

(20)

- a. prze-czyta-ł-em książk-ę
VM-read-past-1sg book-ACC.FEM
'I read the book' [+SQA]
- b. czyta-ł-em książk-ę
VM-read-past-1sg book-ACC.FEM
'I read a book' [-SQA]

Verkuyl translates verbs like 'read (impf)' as 'read *a*' but 'read (perf)' as 'read *the*.' Verkuyl (1993) goes on to claim that it is ungrammatical to omit a direct object from a perfective sentence in Russian. The perfective verb "needs to have available specific information about the internal argument" (p. 108) and "the presence of a perfective prefix requires a specific interpretation of the internal argument" (Verkuyl, 1999, p. 108).

(21)

- a. Maria čitala
Maria read-impf
- b. *Maria pro-čitala
Maria read-perf

Młynarczyk (2004) disagreed with Verkuyl's grammaticality judgments for those sentences:

Concerning the pair of sentences (2-a) and (2-b) [our 21 (a & b)], one could have

reservations with respect to the contrasting grammaticality judgment assumed by Verkuyl. If an appropriate context is provided, both sentences can be used without a direct object. For instance, *Marta napisała do Piotra* ‘Marta wrote-perf to Piotr’, *dziękuje, że napisałaś* ‘thanks that you wrote-perf’ (opening of a letter) are perfectly fine. One can also perfectivise the verb *pisac* ‘by prefixing it by *po-*, and the resulting perfective sentence *Marta popisała* is as good as the imperfective sentence (2-a). (p. 78)

It is necessary to mention, however, that Młynarczyk was objecting to Verkuyl’s grammaticality judgments of Russian using Polish. Unlike Russian, which is only partly prodrop (see Müller [2006] for a full discussion and comparison with other prodrop languages), Polish is fully prodrop and can drop both subjects and objects.⁸

The verbal morphology, such as the verbal modifiers, or the *-ywać* suffix in this Verkuylian system are more or less incidental. Aspect is determined/assigned at the sentential level. Objects are not crucial to the Verkuylian approach per se, but it is instead sentential elements which are quantified that are important.

These arguments tend to ignore *-ywać* and focus instead on Slavic prefixes and bare roots, or else use *-ywać* to make claims about Slavic prefixes.

Later approaches such as Schoorlemmer (1995), using a similar theoretical approach, stipulate that there are verbs with aspect lexically specified, and divide Slavic verbs into two categories. Aktionsart verbs have the perfective aspect lexically specified, and then by implication lexically specify the imperfective aspect through *-ywać* suffixation, while paired verbs do not have aspect specified.

⁸ In Polish, for example the question:

Czy prze-czytałeś książkę? QW VM-read book-ACC.FEM
‘Did you read the book?’

Could be answered with this response:

Tak prze-czytałem Yes, VM-read.

Polish also regularly drops subject pronouns, when Russian usually keeps them, at least in independent clauses.

Schoorlemmer called this system “compositionality a last resort”: “Compositional aspectuality is proposed to be relevant only in clauses that do not have any direct perfective or imperfective triggers” (1995, p. 130).

Essentially, for verbs with perfective or imperfective triggers such as the ones with verbal modifiers that significantly change the meaning from the root (recall *pisać*, ‘write,’ vs. *o-pisać*, ‘copy’), the sentential aspect system does not apply. However for *pisać~napisać*, ‘write perf~impf,’ sentential aspect does apply. This means that for the basic [VM-verb]~[verb] paradigm, where the [verb] on its own without a VM is imperfective, but when a prefix is attached it is perfective, sentential aspect applies. For the situation where the verb is already perfective, and has to be imperfectivized, or in situations where the VM changes the meaning, then sentential aspect does not apply.

Schoorlemmer (1995) also abandons the earlier notion that imperfectives have a [-SQA] feature. This proves to be untenable, as imperfectives can have specific quantities of A:

(22)

Maria wy-pi-ja-ł-a	jedn-ą	szklank-ę
Maria VM-drink-ywa-past-FEM	one-FEM.ACC	glass-FEM.ACC
‘Maria was finishing (impf) one glass’		

We can have specific quantities of objects with imperfectives (*jedn-ą* ‘one-ACC’) where the utterance has a progressive reading. These later Germanicist approaches tend to instead have imperfectives as ambiguously [SQA]; the specific quantity of A may be positive, or negative, while perfectives are still [+SQA].

Młynarczyk largely discounts lexical divisions in Schoorlemmer (1995), because the lexical division does not actually seem to create a class of verbs where a Verkuylian

model works. Polish verbal modifiers clearly exist on infinitives, and Polish speakers can even judge that VM-verb-inf *for a minute* is ungrammatical, while VM-verb-inf *in a minute* is grammatical. If aspect were sentential, and not lexical, then we would expect verbs without context to be able to take either perfective or imperfective triggers (e.g., to vs for):

(23)

prze-czytać *przez/w minut-ę
 VM-read for minute-ACC.FEM
 ‘to read (perf) *for/in a minute’

The claim in Młynarczyk (2004) is essentially that because Polish infinitives have aspect, aspect is lexical (at least in Polish). As we will see in section 6.3, the *in/for* test yields results that are inconsistent with a single-event imperfective description of *-ywać* without a verbal modifier.

3.2 Młynarczyk (2004) Overview

Młynarczyk (2004) makes an extensive overview of Polish ‘aspectual pairing’ for single episodic verbs. The approach argues that Slavic aspect is lexically encoded, and argues extensively against Germanicist approaches, which describe Polish aspect as sentential or telic in any part.

Młynarczyk does not formally define perfective or imperfective, but simply describes how they are used. For example (glosses added by me):

Present tensed imperfective verbs can be used either to assert that a process is ongoing at the present moment (as *Janusz pisze list* [Janusz is writing a letter] does) or that a state holds at the present moment (as *Marta wierzy Piotrowi* [Marta believes Peter] does). Although in English we are forced to use distinct tense forms, in Polish we are not. (2004, p. 2)

Methodologically, her approach excludes any instances of imperfectives that bear a reading that held true more than one “particular moment in time,” in other words, a single stage event (rather than a repetitive, iterative, habitual, or multistage event).

First, let us narrow the question a bit. In our classification we only consider what we call the ‘single episode’ reading of a verb, and we rule out its non-single episode readings. A verb has a single episode reading if it refers to a single actual event (taking place at a particular moment of time). A non-single episode reading is a catchall term for iterative/habitual, or generic readings. (p. 110)

This excludes any habitual imperfectives, any iterativity, or any generic reading.

Essentially, Polish imperfectives were confined to the realm of progressives. Młynarczyk (2004) went as far as to translate imperfective infinitival verbs into progressive verbs (e.g., *jeść*, ‘to be eating,’ *czytać*, ‘to be reading,’ *gotować*, ‘to be cooking’; p. 128).

The main contribution of Młynarczyk (2004) was essentially a lexical mapping of Polish aspect through what she called *formants* or *formational possibilities* which are classified based on the verb’s morphology (table copied from p. 111; *yes* means *this class of verbs takes this prefix/form*, so a Class 1 verb takes only an empty prefix [in addition to the bare form]):

(24)

	ep (empty prefix)	<i>po-</i>	<i>-nq-</i>	mpc (morphophonological change)
Class 1	Yes			
Class 2		yes		
Class 3	Yes	yes		
Class 4	Yes	yes	yes	
Class 5				yes

The suffix *-nq-* is not of consequence to this thesis,⁹ and I will treat it the same as other perfectivizing verbal modifiers. EP stands for *empty prefix* and they are the topic of the next section, and will be of relevance throughout the thesis. MPC stands for *morphophonological change* and essentially describes the suffixation to form imperfectives (*-ywać* and its allomorphs).

Class 1 verbs are essentially verbs where the imperfective form has no imperfectivizing affix, and the perfective is formed through prefixation, but they have no other possible morphological alternations. Class 3 verbs are like Class 1 verbs, but also take *po-* (like in example 4 a & b *pisać~napisać*, ‘write’), while Class 5 verbs are verbs where the verb must be morpho-phonologically changed to create an imperfective (as in

⁹ *-nq-* is often used to form a perfective from an imperfective that implies repetition. For example *pukać*, ‘to cough (impf),’ has the perfective *puknąć* ‘to cough once (perf).’ Młynarczyk (2004) gives it the semelfactive label. This would actually be expected and unremarkable if we believe Polish perfectives usually only describe a single iteration of an event, rather than a multistage, or repetitive action (as proposed in Section 2).

example [4 d & e] *opisać~opisywać*, ‘copy’). The final division of the Polish lexicon Młynarczyk proposed is largely tangential to this thesis, but for one example of how it works:

(25)

Class 3

pisać ‘write (impf)

napisać ‘write’ (perf)’

popisać ‘write for a little while (perf)

Class 5

opisać ‘copy (perf)’

opisywać ‘copy (impf)’

The prefix *po-* is confusingly given its own category in Młynarczyk’s approach when it bears a delimitive change in meaning, but it can also be an empty prefix (or at least, the most unmarked prefix):

(26)

a. *pogrzebać* ‘bury (perf)’ *‘bury for a while’

b. *popisać* ‘write for a while (perf)’

Młynarczyk (2004)’s approach really leaves no room for telicity or definiteness. While Młynarczyk (2004) never explicitly states that telicity is not a property of these phenomena in Polish, she claims that the following example shows it is “wanting”:

(27)

a. Maria z-jad-ł-a banan-a

Maria VM-eat-past-FEM banana-MASC.ACC

‘Maria ate a banana’

b. Osioł z-jad-ł banan-a

donkey VM-eat-past.MASC banana-MASC.ACC

‘The/a donkey ate a banana’

She claims:

According to the parallelism based approaches, the sentence should be interpreted as expressing that the eating-(a)-banana event ended when the whole banana was eaten up. This is problematic, since an eating-(a)-banana event can be finished/completed before the whole banana has been eaten up. For instance, we don't know for sure what it means for Maria in the particular event referred to in (18-a) to have eaten up the whole banana; she most probably did not eat the peel, but she also might have cut off one or even both ends of the fruit itself, as some people do. However, when a donkey eats a banana, it most probably eats the peel as well, and it rather does not leave behind the ends of the fruit. So probably, Maria did not eat up the whole banana when she finished the activity of eating a banana. However, a donkey most probably indeed ate up the whole banana and only then stopped eating. This shows clearly that it is not possible to determine on the basis of linguistic material what exactly it means for a certain object to have undergone the action completely; but then it is also not a linguistic problem. In the light of this observation, the analysis of the perfective sentence as expressing that the event ended when the whole entity denoted by the direct object has undergone the action, is wanting. (p. 107)

This argument is problematic for a number of reasons. It could simply be real world knowledge that allows for this interpretation, as she puts it, "it is also not a linguistic problem." It would not be likely that a human, Maria, would eat the peel in the first place. Real world knowledge could explain why Polish speakers accept the verb *zjeść* 'eat (perf)' on banana meat, but not the peel. Humans do not generally eat banana peel, but donkeys do. This would apply to English as well:

(28)

Maria ate the banana up but not the peel.

This does not sound marked despite the fact *eat up* is generally used when the entire dish has undergone the action of eating.

3.2.1 Młynarczyk (2004) Empty Prefixes

Empty prefixes are prefixes that add aspectual meaning to a Slavic verb, but are claimed by Młynarczyk (2004) to not add any further semantic content:

Simplifying somewhat (these prepositions can have several meanings) we might say that *na-* means ‘on’, *z-* means ‘with’, *u-* means ‘at’, and *prze-*, if associated with the preposition from which it derives (namely, *przez*), means ‘through’. However they do not retain these meanings when used as prefixes to build aspectual pairs. To put it another way, in the complex perfective verbs formed by prefixation, the prefixes are ‘emptied’ from their lexical meaning; they merely contribute the completion meaning to the basic verb. (p. 8)

A large portion of Młynarczyk’s (2004) analysis distinguishes empty prefixes vs nonempty prefixes. As mentioned in the previous section, Schoorlemmer labeled verbs with nonempty prefixes as Aktionsart verbs.

Many verbs in Polish can take a wide array of prefixes. Many of those prefixes clearly change the meaning of the verb, however some seem to change the meaning of the verb very little, and deciding which prefix (if any) is empty poses a challenge. Using the verb *pisać*, ‘to write,’ for example, we see many perfective prefixed forms; Młynarczyk breaks it down as follows (p. 7):

(29)

pisać ‘to write-impf’ *napisać* ‘to write-perf’
popisać ‘to write-perf’
podpisać ‘to sign-perf’
przepisać ‘to copy-perf’
przepisać ‘to prescribe-perf’
dopisać ‘to add more writing-perf’
spisać ‘to make a list of/to draw up-perf’
wpisać ‘to write in-perf’
zapisać ‘to write down/to take down-perf’

The suffix *-ywać* comes into relevance when Młynarczyk (2004) uses something she called “the Secondary Imperfectivization Test.” There are verbs in Polish formed through an *-ywać* suffix with many allomorphs as mentioned in Section 1. These are considered

niedokonany, ‘incompleted,’ otherwise translated as ‘imperfective.’ Młynarczyk considered these to be *secondary imperfectives*. Essentially, secondary imperfectives are verbs that are not unmarked imperfectives. They are morphologically marked with *-ywać* or other allomorphs or irregular suffixes. As described before, in the regular paradigm, *pisać*, ‘write (impf),’ has the perfective *napisać*; it can also be perfectivized with *o-* but this triggers a change in meaning to *opisać* ‘copy.’ The imperfective of *opisać* ‘copy (perf),’ or as Młynarczyk calls it, “the secondary imperfective,” is *opisywać* with the *-ywać* suffix.

The diagnostic to determine whether a prefix is empty or changes the meaning of the verb is the secondary imperfectivization test (Młynarczyk, 2004):

1. If the only way of imperfectivising Perf(impf-verb) to obtain a verb with a single episode meaning is to return to the original verb (that is, impf-verb) then we say that impf-verb passes the secondary imperfectivisation test, and that Perf(impf-verb) and impf-verb are aspectual pairs.
2. On the other hand, if Perf(impf-verb) can be imperfectivised to a verb with a single episode meaning by some other means, then we say that impf-verb fails the secondary imperfectivisation test, and that Perf(impf-verb) and impf-verb are not aspectual pairs. (p. 116)

If a prefix is empty, then the only way to imperfectivize it is to return to the base verb: essentially to have the verb without a perfectivizing prefix. If the prefix is not empty, then it should be able to be imperfectivized with *-ywać*. Młynarczyk’s justification for having the delimitive meaning of the prefix *po-* as its own class of verbs was the secondary imperfectivization test:

Is the complex delimitative verb really a true aspectual twin of the original verb? According to the secondary imperfectivisation test, yes. Why? Because there is no way of imperfectivising *posiedzieć* and *pospacerować* other than going back to *siedzieć* and *spacerować* respectively. (p. 118)

This justification for separating all *po-* verbs from verbs with other verbal modifiers is

confusing. While the fact we cannot form secondary imperfectives is true for *siezdzić*, ‘sit,’ and *spacerować*, ‘walk,’ we can in fact form secondary imperfectives from delimitative *po-* verbs in other instances:

(30)

- a. *popić* ‘drink for a while (perf)’
popijać ‘drink for a while (impf)’
- b. *potrzymać* ‘hold for a while (perf)’
potrzymywać ‘hold for a while (impf)’

It seems strange to separate *po-* as its own class of verbs from every other prefix on the basis that some verbs cannot be reimperfectivized after being prefixed with *po*; this is true with most Polish perfectivizing prefixes not only *po-*. For one example, according to Młynarczyk, *na-pisać*, ‘write (perf),’ cannot be secondarily imperfectivized with the *-ywać* suffix to **na-pisywać*. However, we see that *na-pić*, ‘have a drink of,’ can be secondarily imperfectivized with the *-ijać* allomorph of *-ywać* to *na-pijać*. Młynarczyk does not use the fact that we are unable to secondarily imperfectivize a handful of verbs with the *na-* prefix, to then mean *na-* is its own verb class; she does, however, for the *po-* prefixed verbs.

Logically, if one of the prefixes has no meaning, then it cannot be secondarily imperfectivized without blocking effects. If the verb’s prefix is empty and it is reimperfectivized, then it will have the same meaning as the morphologically unmarked imperfective, only with an imperfectivizing suffix. For this reason, the verb *napiścić* may not be given the *-ywać* suffix:

(31)

- a. zapisać~zapisywać
describe (perf)~describe (impf)
- b. napisać~*napisywać
write (perf)~write imperfective

Under Młynarczyk's analysis, (31-b) is ungrammatical because there already is an imperfective form, *pisać*; the *na-* prefix in this case is empty

A lexical division, like in Schoorlemmer (1995), between Aktionsart verbs and aspectual oppositions is behind the logic of this approach. The main advantage of Młynarczyk's lexical division over that of Schoorlemmer is that Młynarczyk's division does not delimit the set of data to which the approach applies (insofar as Schoorlemmer's approach categorizes the verbs into two groups, one where the Verkuylian approach applies, and one where it does not). The lexical divisions are along similar lines, but for different motivations. They both divide the prefixes that change the meaning of the verb, but in Schoorlemmer (1995) this is because Schoorlemmer stipulates that these particular verbs have lexical aspect, while the rest do not. Młynarczyk (2004) divides them from the rest of the verbs because she argues that these verbs do not have an empty prefix; in other words, they have a prefix that adds additional semantic content in addition to perfectivity.

If we assume *-ywać* is imperfectivizing, then **napisywać* would mean the same thing as *pisać* if the prefix were empty of any semantic meaning besides [+perfective].

Secondary imperfectivization works on verbs where the prefix changes the semantic flavor of the verb in addition to adding aspectuality.

The presence of verbs such as *prze-czytywać* (the *empty prefix* form of *czytać*, 'read') may cast doubt that prefixes may be truly empty, as we will see more in Chapter 7 and

Section 3.3. Bogdan and Sullivan (2009) instead conceptualized the lack of a word *napisywać* as a mere lexical gap. Polish speakers tend to think if the word existed, it would mean “something different” than *pisać*, ‘to write,’ possibly indicating that when secondarily imperfectivized, Polish speakers think the *na-* in *na-pisać* is not empty. We will go over this more in the next section, as well as some of their evidence for the lexical gap.

3.3 A Different Slavicist Approach: Bogdan and Sullivan (2009)

Bogdan and Sullivan (2009) adopt a radically different approach from within the Slavicist perspective. One of the first major differences with Młynarczyk is the claim that *empty* perfectivizing prefixes are not empty, but instead they are unmarked (Bogdan & Sullivan, 2009):

[Młynarczyk (2004)] accepts the idea that some prefixes can be semantically empty; we would rather assess a particular prefix (e.g., *na*) as unmarked semantically with respect to a certain semantic class of stems because of its geometric sense (SURFACE: e.g., *pisać* ‘write’, *rysować* ‘draw’). (p. 11)

Rather than having some prefixes devoid of meaning other than [+perfective], Bogdan and Sullivan (2009) believe some prefixes are more or less marked, and the markedness of the prefix depends on the verb it is attaching to (in other words, the markedness of the VM-verb combination). It is not explicitly stated in Bogdan and Sullivan (2009) why a geometrically related prefix would be the least marked. Intuitively, we write on surfaces in English and other languages with a preposition that functions similarly.

One drawback to their approach is that markedness is not explicitly separated from the morphology. A morphologically basic form is unmarked and then adding prefixes or suffixes to verbs makes them marked or even *more marked* than something that is

marked.

Bogdan and Sullivan's definitions of aspect greatly affect their approach. They define perfective and imperfective as follows:

Perfective aspect communicates a change in state.

Imperfective aspect does not communicate a change in state. (p. 44)

This eventually led to the label of perfective as *dynamic* and imperfective as *static*.

Because of the nonbinary nature of their approach, it is possible for things to be more dynamic or less dynamic, which eventually Bogdan and Sullivan (2009) propose. This formal definition of perfectivity and imperfectivity contrasts with Młynarczyk's definition that merely reiterates how imperfectives and perfectives are used.

It is not explicit clear how a *change in state* vs *not a change in state* is operationalized. Stative verbs like *wiedzieć*, 'to see,' can be perfectivized. I believe the way Bogdan and Sullivan (2009) conceptualize it, however, is that *see-perf* is a change in state from a point (a) of not being seen, to a state of point (b) of being seen.

Central to Bogdan and Sullivan (2009)'s approach on aspect is the categorization of morphologically basic forms from morphologically marked forms. They call the morphologically basic forms "iconic" or "unmarked" while the morphologically marked forms are "marked." Morphologically basic perfective verbs without prefixes (such as *dać*, 'give') and imperfective verbs without *-ywać* or other secondary imperfectivization suffixes are considered iconic. Thus for the verbs *dać* and *pisać*, the approach is as follows (example copied from p. 53; they use arrows to signify the direction of derivation, e.g., a so-called imperfective being derived from a so-called perfective is imperfective<---perfective):

(32)

Imperfective		Perfective	
Marked	Unmarked (Iconic)	unmarked (iconic)	marked
<i>pisywać</i>	<---- <i>писаć</i>		
‘write-ywać’	‘write (impf)’		
<i>podpisywać</i>	<----- <i>podписаć</i>		
VM-write-ywać	‘sign-ywać’	VM-write	‘sign-perf’
<i>dawać</i>	<----- <i>даć</i>		
give-ywać	‘give (impf)’	‘give (perf)’	
<i>oddawać</i>	<----- <i>оддаć</i>		
VM-give-ywać	‘give back (impf)’	VM-give	‘give back-perf’

They operate on a model that is nonbinary, but perhaps not nonbinary enough. One problem with this, which we will see in further detail in section 6.4, is that the *-ywać* forms without verbal modifiers are grouped in with the ones that have verbal modifiers. These verbs behave differently.

With the data oriented a different way in the following table, iconic imperfectives and iconic perfectives are their own categories because they are morphologically unmarked (example from p. 63):

(33)

iconic impf	iconic perf	marked prefixed perf	marked suffixed impf
<i>писаć</i> ‘write’		<i>подписаć</i> ‘sign’	<i>писywać</i> ‘write’ <i>podpisywać</i> ‘sign’
	<i>даć</i> ‘give’		
		<i>подаć</i> ‘pass’	<i>podawać</i> ‘pass’

The simple *-ywać* and other suffixes are imperfective approach, however, has its advantages, as it does not require lexical divisions, unlike the Schoorlemmer (1995) and Młynarczyk (2004) approaches. *Pisywać* is simply imperfective in a more morphologically marked way--thus drawing more attention to its imperfectivity--than *pisać* is. Imperfectives are claimed to be less dynamic than perfectives because they describe a state being held true for a moment in time, or because they focus on a point where the state is held true.

In Bogdan and Sullivan's model, *-ywać* imperfectives derived from iconic imperfectives are more imperfective:

Suffixation in *pisywać* makes an imperfective more imperfective, which is to be expected: marked imperfective suffixation is stronger than iconic imperfective. It is also stronger than iconic perfective, marked (prefixed) perfective, and the combination of marked (prefixed) perfective on an iconically perfective stem. Unlike iconic perfectives, derived imperfectives can only be imperfective... The derivational morphology suggests that imperfective and perfective are both aspects, distinct from one another rather than in binary opposition. Thus it actually makes as much sense to rank the various imperfectives and perfectives on a scale that has the strongest imperfectives on one and the strongest perfective on the other with the strength of both imperfectives and perfectives decreasing towards the middle, where they even out. (p. 61)

It is never made entirely explicit what *stronger* imperfective or *more* imperfective means. Bogdan and Sullivan (2009) put the verb *być*, 'to be,' at the 0 point, and unmarked and marked imperfectives immediately to the left and right of it, with marked perfectives and imperfectives further to the left or right (example copied from p. 62):

(34)

Imperfective		0	Perfective			
<-----marked	unmarked		unmarked	marked----->		
pisywać	dawać	pisać	być	dać	podpisać	podać
	podpisywać					
	podawać					

Bogdan and Sullivan (2009) do not claim the example above is actually representative, but they leave it as a model. It seems that Bogdan and Sullivan (2009) recognize *podpisywać* is in a different category than *pisywać*, but they put it in the marked section not differentiating it from the other marked forms except for in a subjective “this is more marked/more imperfective” manner.

An inconsistency, however, is that a prefixed imperfective like *podpisywać* is less marked than *pisywać*. Morphologically speaking, in a basic vs marked opposition, *podpis-ywać* has more morphological marking than *pis-ywać* despite being perhaps less marked in meaning.

One claim Bogdan and Sullivan (2009) make which is drastically different from what other authors claim, is that **napisywać* in 4 (b) (recall the example Młynarczyk [2004] used to prove *na-* in *napisać*, ‘write-perf’) is not really ungrammatical, but a lexical gap:

A potential derived imperfective like *napisywać* seems to not exist, or at least is found objectionable by native speakers. There is no structural reason why *napisywać* should be impossible, but it certainly seems to be lacking in the lexicon... [Native speakers are] completely unanimous that [na-pis-ywać; ‘VM-write-ywać’] should not mean the same thing as *pisać* [‘write’]... Jerzy and Marzena Lubaszewscy, friends from Białystok, also cite *ponapisywać* and *wynapisywać*¹⁰ as occurring perfective forms that are not attested in dictionaries, a point we return to in 4.8. Still, their occurrence clearly shows *napisywać* is morphosyntactically possible. The lack of *napisywać* as an independent lexeme is therefore a gap in the lexicon. (p. 54)

This claim, while mostly relegated to the footnotes of Bogdan and Sullivan (2009), has widespread and quite significant implications for Młynarczyk (2004), the secondary imperfectivization test, empty prefixes, and a description of Polish in general. If many grammatical instances of so-called empty prefixes occurring with *-ywać* forms are

¹⁰ One complication not mentioned before, as it is otherwise not relevant to this thesis, is that some Polish verbs may have prefix stacking. *wynapisywać* is *wy-na-pis-ywać*. For a detailed discussion of this in Polish, Russian, and Ukrainian see Ludwig (1995).

attested, then this creates problems for the notion of the empty prefix. For more examples of this, see Chapter 7 for a further discussion.

3.4 Summary of Literature Review

Between the two positions, Slavicist and Germanicist, there is disagreement as to whether aspect is sentential or lexical, and whether or not Polish perfectives have [+SQA] (Specific Quantity of A) features.

Verkuyl argues that perfectives are telic and [+SQA] while imperfectives are atelic and [-SQA]. Later Germanicists' (e.g., Filip, 1993) approaches keep the [+SQA] feature for perfectives but have the [SQA] features of imperfectives ambiguous.

Slavicist approaches tend to use relatively loose definitions of aspect, or operationalize them in unusual ways, such as *static* = imperfective versus *dynamic* = perfective. The aspectual categories are more or less labels (e.g., perfective, imperfective, static, dynamic) that are used to describe this Slavic phenomenon.

Młynarczyk (2004) analyzes perfectives within the scope of aspect, stipulating that some cases (such as where the secondary imperfectivization test yields a verb) are Aktionsart with a semantic flavor in addition to perfectivity. For example, the *pisać~opisać* case where *pisać*, 'write,' yields 'copy' when the perfectivizing verbal modifier *o-* is attached to it.

Importantly, some Slavicist approaches separate Aktionsart from simple perfective~imperfective distinctions. Aktionsart changes the meaning of the perfective form. Sometimes perfective prefixes do change the meaning of a verb significantly, as seen before in Chapter 2.

(35)

a.

Pisałem listy

‘I wrote (impf) letters

b. Na-pisałem listy

‘I wrote (perf) letters’

c. O-pisałem listy

‘I described/wrote about (perf) letters’

It is apparent that the perfectivizing prefix in (c) also adds a different semantic flavor or even total change in the meaning.

The *-ywać* suffix is not really extensively discussed in Germanicist approaches. In Slavicist approaches it is used for the secondary imperfectivization test in Młynarczyk (2004), and to derive imperfectives (“marked imperfectives”) in Bogdan and Sullivan (2009).

CHAPTER 4

MORE ON MORPHOLOGICAL CATEGORIZATIONS

In this section we shall go into more detail on *-ywać* in the secondary imperfectives and the secondary imperfectivization test from Młynarczyk (2004), and the notion of iconicity from Bogdan and Sullivan (2009).

4.1 Secondary Imperfectives and Empty Prefixes

To reiterate, the Secondary Imperfectivization test is a morphological test, whereby the Polish imperfectivizing suffix *-ywać*, is used to form an imperfective from a perfective. The procedure is to add *-ywać* to a verb that has a prefix; if it is ungrammatical to the Polish-speaker then, according to Młynarczyk, the prefix is empty. This still obviously relies on subjective grammaticality judgments, and the results can vary between speakers, as happens between Młynarczyk (2004) and other native Polish-speaking authors:

Some authors (notably, Bogusławski (Bogusławski, 1963, page 107)) have questioned the reliability of the secondary imperfectivisation test, pointing to verbs such *balsamować* ‘to embalm (a corpse)’ (which can be perfectivised to *zabalsamować* and then re-imperfectivised to *zabalsamowywać* and *planować* ‘to plan’ (which can be perfectivised to *zaplanować* and then re-imperfectivised to *zaplanowywać*. But it is debatable whether these are genuine counterexamples. The primary reading of both the secondary imperfectivised forms is iterative, not single episode, and in any case such examples are rare and do not seem to be widely used. (p. 177)

The fact that these verbs cause disagreement for different Polish-speaking authors writing about Slavic aspect shows just how problematic and subjective these judgments are. Bogusławski (1963) believes *zaplanowywać* is a secondary imperfective, while Młynarczyk (2004) believes the primary reading is iterative. As we will see in section 6.3, it would be extremely surprising for any Polish multiepisodic *-ywać* verb to bear a meaning other than a repetitive event. All imperfectives, however, may have a habitual reading.

The division of *empty* vs *not empty* prefixes is somewhat arbitrary. It is the prefix-verb combinations themselves, rather than the prefixes or verbs on their own, which cause the division, if there is one. A certain prefix may be contentful with one verb, but empty with another. For example, Młynarczyk (2004) claims the prefix *na-* in *napisać* ‘write (perf),’ is empty, yet *na-czytać*, ‘read on/read for a long time,’ clearly changes the meaning of *czytać*, ‘read (impf).’ Similarly *napić*, ‘drink to completion/drink ones fill (perf),’ clearly changes the meaning of *pić*, ‘drink (impf).’

What the secondary imperfectivization test is really showing, if anything, are some instances where a verb with a prefix may not take the *-ywać* suffix. These may be lexical gaps, as Bogdan and Sullivan (2009) hypothesize, or actual instances of ungrammaticality as Młynarczyk (2004) hypothesizes.

4.2 Iconicity

Another important morphological concept Bogdan and Sullivan (2009) used was iconicity. In their operationalization of Polish aspect, it seems verbs without perfectivizing prefixes or imperfectivizing suffixes were iconic. In a Polish verbal

complex [verb] is iconic, while [verb-ywać] [VM-verb] and [VM-verb-ywać] is not.

Thus, a verb like *dać*, ‘give (perf),’ is iconic despite being perfective, as is a verb like *pić*, ‘drink (impf),’ despite being imperfective.

One objection to this is that iconic perfective verbs like *dać* are highly irregular. This does not even seem to be an open class of verbs. Most verbs borrowed into Polish have to be prefixed or suffixed in order to make them perfective:

(36)

impf~perf

guglować~wy-guglować ‘google’

gugłać~guglić ‘google (thematic vowel change)’

reperować~z-reperować ‘repair’

edytować~z-edytować or *wy-edytować* ‘edit’

These words simply do not enter Polish as perfectives. This may be because imperfectives are an open class of words in Polish, or because we generally morphologically mark things to make them perfective in Polish. There is some data to show that Polish imperfective verbs may not be morphologically specified for aspect at all (see Chapter 7).

In these cases, *-ywać* is used after these verbs have been given verbal modifiers, or else on the verb as it stands without a verbal modifier (this would generally be given the label of an “iterative”). New verbal lexemes in Polish, however, are generally not perfective without a verbal modifier or, in seemingly uncommon instances, a thematic vowel change.

CHAPTER 5

GENERATIVE PERSPECTIVES ON ITERATIVES, PERFECTIVES AND IMPERFECTIVES

Most of the approaches we have seen so far use terms like *iterative*, *perfective*, and *imperfective* without defining the terms, or using very different definitions of the same terms.

In order to proceed further some framework of these terms is necessary. For the remainder of this thesis, I will use the Chomskyan convention of capitalization when I mean something in the theoretical sense, rather than the language specific sense. Capitalized Perfective and Imperfective mean the theoretical sense of those words, whereas lowercase perfective and imperfective mean it in the traditional Polish description sense.

5.1 Aspect

5.1.1 Comrie (1976)

Comrie (1976, p. 3) defined aspect as follows: “Aspects are different ways of viewing the internal temporal constituency of a situation.” If the verb presents situation as a single “unanalysable whole” with “the beginning, middle, and end rolled into one,” Comrie

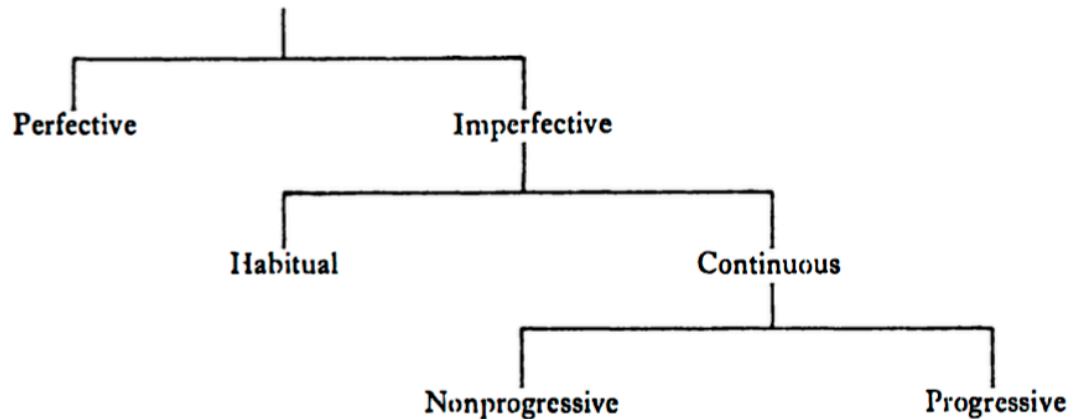
(1976) claims it is Perfective.

On the other hand, when reference is made to the middle of a situation with no mention of its beginning or end, Comrie (1976) claims it is Imperfective. Another way of viewing this is that Perfectives view situations externally, while Imperfectives view situations internally.

Comrie (1976, p. 25) showed this as the way aspect is hierarchically categorized:

(36)

Table 1. *Classification of aspectual oppositions*



Habituals, like other imperfectives, focus on the internal structure of an event in Comrie's (1976) model. There does not seem to be a very explicit division between the various types of imperfectives, and how they are similar other than they are all viewed from within an event:

Firstly, imperfectivity includes as a special case habituality, and a situation can be viewed as habitual without its being viewed as progressive, as with the English non-Progressive Habitual in John used to write poems (contrasting with the Progressive John used to be writing poems). In this respect, progressiveness is similar to continuousness, which is definable as imperfectivity that is not occasioned by habituality. (Comrie, 1976, p. 33)

It is not entirely clear from Comrie (1976) what makes habituais, progressives, and nonprogressives, all subcategories of imperfective, other than all of these forms having no reference to a beginning or endpoint.

5.1.2 Smith (1991)

Smith (1991) defined the perfective and imperfective aspects similarly to Comrie (1976):

Perfective viewpoints focus on the situation as a whole, with initial and final endpoints. *Imperfective* viewpoints focus on part of a situation, including neither initial nor final point. *Neutral* viewpoints are flexible, including the initial point of a situation and at least one final stage. (p. 6)

Also important to Smith's (1991) aspectual system is the *situation type* or *situation aspect*. Smith (1991), unlike Comrie (1976), distinguished between aspectual viewpoints and situation aspect. The situation aspect "[belongs] to a certain category of event or state" (p. 4). Situation types, such as Statives, interact with aspectual viewpoints (perfectives and imperfectives). For example, stative actions may be either imperfective or perfective. In some ways, the distinction between situation aspect and viewpoint aspect is akin to Slavicist versus Germanicist disagreement on whether aspect is lexical or sentential. Both of these, however, are present in the Smith (1991) approach, and importantly Smith (1991) does not explicitly argue whether or not aspect is sentential or lexical. Some aspectual elements, however, look at entire situations.

Smith (1991) used various diagnostics in a cross-linguistic analysis of different aspectual systems, as well as for Russian Perfectives, some I will reuse in the next Chapter. One diagnostic is using a *when*-clause to show that the perfective verbs with *when*-clauses can only have sequential interpretations. Another is testing whether or not

the action can be continued by adding additional information (e.g., #“she sat-perf in the park, and is still sitting there”).

For Imperfectives Smith (1991) also used when-clauses; this time however, the purpose was to show that the initial point of the action is “not visible.” “If the initial point is not visible, the main clause situation must be already underway at the time of the adverbial clause situation” (p. 104). In order to show that the final point of the action is “not visible,” they used the same conjunction test to show it (only this time the conjunctions should be unmarked).

5.1.3 Klein, Li, and Hendriks (2000)

The approach in Klein, Li, & Hendriks (2000) constitutes a slight departure from Comrie (1976) and Smith (1991)’s definition of aspect. Klein et al. (2000) has problems with the wordage of aspect in Smith (1991) and Comrie (1976).

The first problem Klein et al. (2000) noted with their definitions is that their definitions of aspect contain metaphors such as view.

What does it mean that, for example, in the English simple form, the situation is seen, viewed, or presented 'in its entirety', 'as a whole', or 'without reference to inner constituency'? What does it mean that in the progressive, the situation is not seen in its entirety, without boundaries, or with reference to inner constituency? (p. 730)

Another problem is that their definitions of aspect define perfectivity and imperfectivity using boundaries and boundedness. Klein et al. (2000) note that it is entirely possible to have bounded Imperfectives: “George was living in London for seven years.” The action is Imperfective, but still bounded. Klein et al. (2000) say that these sentences in Russian “have to be in imperfective aspect” (p. 731).

It would be clearly odd to say that the aspect presents the situation as unbounded, whereas at the same time, the adverbials explicitly mark it as bounded. This seems a clear contradiction, but there is nothing contradictory or odd in these sentences. (p. 731)

As a preliminary, Klein et al. (2000) distinguish between two time intervals:

(a) the time span at which the situation obtains; we will call this interval ‘time of situation’ (abbreviated T-SIT), and (b) time span about which something is said; we will call this interval ‘topic time’ (abbreviated TT). (p. 742)

Additionally, Klein et al. (2000) use a third category: time of utterance (TU). These three notions, time of situation, topic time, and time of utterance, are the elementary units of their operationalization of both tense and aspect. In turn, which elements are related to which, distinguish tense from aspect:

(a) Tense indicates a temporal relation between TT and TU; (b) Aspect indicates a temporal relation between TT and T-SIT.

In other words, both tense and aspect are temporal relations in Klein et al. (2000), but the relations between time of utterance, topic time, and time of situation vary between the two. Klein et al. (2000) use this sentence to demonstrate the difference between tense and aspect:

(37)

John was sleeping.

In this utterance, the tense information indicates that the TT precedes the TU, and aspect information indicates that it happens within the situation described by <john sleep> (Klein et al. 2000, p. 752). With the perfective version of that sentence *John slept*, the tense information would be the same, while the aspect information would mean that <john sleep> either overlapped with, or happened after, the distinguished phase.

5.2 Iterativity

One of the simplest descriptions of iterativity is found in Verkuyl (1996, p. 3): “The iterative aspect... gives the action in its repetition.” A similar understanding of iterativity to mean simple repetition seems to also be used in Młynarczyk (2004).

Generative approaches, however, tend to define iterativity differently depending on whether the iteration can go on indefinitely, or whether it iterates over the same event or multiple events.

5.2.1 Comrie (1976)

Comrie (1976) defines iterativity as the repetition of a situation or “the successive occurrence of several instances of the situation” (p. 27). Comrie (1976) distinguishes between Habituality and Iterativity as follows:

The feature that is common to all habituals, whether or not they are also iterative, is that they describe a situation which is characteristic of an extended period of time, so extended in fact that the situation referred to is viewed not as an incidental property of the moment but, precisely, a characteristic feature of a whole period. If the individual situation is one that can be protracted indefinitely in time, then there is no need for iterativity to be involved (as in the Temple of Diana used to stand at Ephesus), though equally it is not excluded (as in the policeman used to stand at the corn field two hours each day). If the situation is one that cannot be protracted, then the only reasonable interpretation will involve iterativity (as in the old professor used always to arrive late). (pp. 27-28)

According to Comrie (1976), Iterative situations can be limited in time, whereas Habitual situations can be protracted indefinitely. Comrie (1976) considers unprefix Slavic *-ywać* forms to not be Iterative, but Habitual. Habituals may describe a single protracted action, while iteratives necessarily involve repetition. Comrie stipulates that habituals may be iterative, but so can perfectives like “the man stood up and coughed five times” (p. 27).

Comrie (1976) does not explicitly provide diagnostics to distinguish Iteratives from Habituals. However, from this definition it would not be hard to design diagnostics. If an event cannot be continued indefinitely but only iterates for a period of time, then it is iterative. Habitual actions can be protracted indefinitely, while iterative actions cannot.

5.2.2 Bybee, Perkins, and Pagliuca (1994)

Bybee, Perkins, and Pagliuca (1994) differ from Comrie (1976) in their definition of Iterativity. Unlike Comrie (1976), Bybee et al. (1994) distinguish Iterativity from Habituals and Frequentives based on whether the action repeats during a single event, or repeats over multiple events:

The iterative is a commonly occurring aspectual gram of rather specific meaning. It signals the action is repeated on a single occasion and differs from the habitual and the frequentative, which both signal the repetition on different occasions. (p. 160)

The main diagnostic Bybee et al. (1994) offer is whether the repetitions are confined to a single event, or whether they are allowed to occur over multiple events (example from p. 161):

(38)

- a. He searched for his keys all morning. (iterative)
- b. He searched for his brother in every city. (habitual)

Frequentatives, on the other hand, are defined as “includ[ing] habitual meanings—that is a situation characteristic of a period of time—but additionally specif[ying] that it must be frequent during that period of time” (p. 127). In other words, habituals are a variety of frequentative.

5.3 Summary of Various Generative Perspectives

The authors on aspect tend to agree that Perfectives are externally complete, or that the stages of an action are grouped into a single whole in some way. Progressives are the opposite. They either are viewed metaphorically from one of the stages of the action, or else the action has a source phase and a target phase, and the two might not necessarily be contained within the action.

Imperfectives are often a larger category, which encompasses many different viewpoints of an action. For example, in some of the approaches above imperfectives include habituais and progressives. This contrasts with approaches like Młynarczyk (2004) that explicitly exclude habituais from their analysis of imperfectives.

CHAPTER 6

DIAGNOSTICS

6.1 Perfective Diagnostic

Smith (1991, p. 301) employs a *when* diagnostic for perfectives in Russian. If a verb is perfective, then if we employ a *when*-clause, the event should only have a sequential interpretation:

(39)

Kiedy po-szed-ł-em do kin-a pies wy-grał gr-ę
when VM-go-past-1sg.MASC P theater-GEN.NEUT dog perf-won game-
ACC.FEM

‘When I went to the theater, the dog won the game.’

Like in Russian, this can only have a sequential interpretation. It is not possible to interpret those events as occurring simultaneously.

Another diagnostic is to test whether or not the event is compatible with an assertion that the event continues:

(40)

*On do-spa-ł w pokoj-u, i jeszcze tam sp-a
3SG.MASC VM-sleep-past P room-LOC and still there sleep-3sg
‘‘they slept enough (perf), and are still sleeping’’

(41)

*One na-pisa-ł-y pismo, i jeszcze pisz-ą
 3.PL.FEM VM-write-past-3pl.FEM letter and still write-3pl
 “they wrote (perf) a letter, and are still writing”

These sentences are contradictory. For the interpretation of the action beginning in the past, and still being ongoing they are ungrammatical, if not extremely marked and implausible semantically. A plausible interpretation, that is difficult to get, is that “they wrote (perf) a letter, the action was resulted in the letter being finished, and are now writing the (same) letter (again).” Importantly, the action stopped at some point to make the interpretation grammatical.

6.2 Another Restriction on Perfectives not Covered by These Diagnostics

It is worth noting that with perfective verbs, quantifiers like *często*, ‘often,’ are ungrammatical:

(42)

- a. Często czyta-ł-em książk-i
 often read-P-1sg.MASC book-PL
 ‘I often read books’
- b. */#często prze-czyta-ł-em książk-i
 often VM-read-P-1sg-MASC book-PL
 ‘I often read (*perf) books’

There are instances where sentences like (b) occur, but Polish speakers find them objectionable; it is not clear if this is because these are ungrammatical or just semantically deviant. Most speakers do not use perfective verbs with ‘often’ even when the verb itself has a Perfective (in the Smith [1991] and Comrie [1976] sense) meaning. For those, speakers tend to use imperfectives.

Like quantifiers such as *dwa razy*, ‘two times,’ other quantifiers that necessitate repetition like *często*, ‘often,’ have unexpected restrictions on Polish perfectives. It may be that in addition to bearing a Perfective meaning, Polish verbs with VMs are less marked when the action occurs only once. There may also be the same definite/specific meaning on the object of such sentences, which could be another reason for why these sentences are so marked. However, if definiteness and the destruction of an object is the only reason that *często*, ‘often’ is found objectionable, then we would expect it to be grammatical in (42-b).

There seems to be an additional restriction on ‘often’ than on *dwa razy* ‘two times.’ *Often* is usually unacceptable for Polish speakers with any Polish perfective.

6.3 Imperfective Diagnostic

Using the when-clause diagnostic for imperfectives, as predicted, has different results from the Perfectives above (translating Smith’s [1991, p. 303] example from Russian to Polish):

(43) bare imperfective

Vanja śpiewa-ł w park-u, kiedy Nina się po-jawi-ł-a
 Vanja sing-past.MASC P park-LOC when Nina REFL VM-appear-past-FEM
 ‘Vanja was singing (impf), when Nina appeared (perf)’

(44) *-ywać* with verbal modifier

Vanja o-pis-ywa-ł prac-ę domow-ą, kiedy pies z-jad-ł
 Vanja VM-write-ywa-P.3sg homework-ACC when dog VM-eat-P.3sg
 ‘Vanja was copying homework (impf), when the dog ate it (perf)’

(45) *-ywać* with no verbal modifier

*/?Vanja pis-ywa-ł prac-ę domow-ą kiedy pies z-jad-ł
 Vanja write-ywa-P.3sg homework-ACC when dog VM-eat-3P.3sg
 ‘Vanya wrote (iter? habitual?) homework, when the dog ate it (perf)’

Example (43) shows that Polish imperfectives may minimally function as Imperfectives in the Comrie (1976) and Smith (1991) definitions. (44) shows the same, but for a derived imperfective rather than a bare imperfective. We see, however, that *-ywać* with no verbal modifier on the verb is quite questionable in (45).

As Smith (1991) notes, however, imperfectives in Polish may also be used to describe events that are Perfective:

(46)

Wojn-ę i Pokoj pisa-ł Leo Tołstoj
 War-ACC.FEM and Peace write-P.MASC Leo Tolstoy
 ‘Leo Tolstoy wrote (impf?) war and peace.’ (p. 306)

Smith (1991) explained this through pragmatic conventions of use. This is not the only example of imperfectives being used for Perfective events. Dahl (1985, p. 75) noted that in Slavic languages (using a Russian example), when asked, “Is there any book that he read already?” some people responded:

(47)

on čita-l et-u knig-u
 he read-past.MASC this-FEM.ACC book-FEM.ACC
 ‘he read (impf?) this book’

Dahl (1985) took this as evidence that imperfectives were less marked in Slavic languages, and called this the “General Factual” or “Simple Denotative” use of imperfectives, where the completeness of the event is left open, but the speaker is just stating a general fact. Markedness in this sense was not morphological, unlike in the

sense used by Bogdan and Sullivan (2009).

It is not entirely clear whether or not (44) requires that the person read the entire book, but the quantifier *already* seems to imply it. Perhaps someone could *already* have read only a part of the book, but in that case it would still be a seemingly perfective event.

In other words, many uses of Polish imperfectives fit the predictions that an Imperfective (in the theoretical sense) description would make, but there are also uses of imperfectives that we would not expect (for example, their use to negate an action, or describe a multistage event as described in Chapter 2, and even sometimes may be used to describe Perfective events). It is surprising that the example above is unmarked; if we believe *pisal* ‘wrote’ is imperfective, then it should be ungrammatical. Multiepisodic events seem to often necessarily be either imperfective or *-ywać* (without a prefix). Polish imperfectives seem to be able to function as Imperfectives in the generative theoretical sense, but they also have other uses that are not expected under the purely theoretical definition.

The conclusion of this diagnostic is that Polish imperfectives fit within all of the generative formalizations of Imperfective described in Chapter 5. As we will see later through experimental data (section 7.1) it may be that Polish imperfectives are more than just Imperfectives in the theoretical definition, and are in fact open to interpretation. If this holds true, Polish imperfectives are really Comrie’s (1976) and Smith’s (1991) Neutral aspect.

6.4 Iterativity Diagnostic

Młynarczyk (2004), and likely other descriptions of Polish aspect, claim that *-ywać* on a verb without a prefix is iterative. Most generative definitions of Iterativity seem to importantly define an iterative as the situation repeating itself in the same event. Comrie even quantifies the number of repetitions as “several instances of the situation” while Bybee et al. (1994) confine the repetitions to within the same event (e.g., a dog barking 5 times in one morning would be Iterative, while a dog barking in different mornings would not).

For the definition of iterativity in Bybee et al. (1994), Polish *-ywać* on a verb with no prefix would certainly not be iterative¹¹:

(48)

- a. *Cały ranek dzieci czyt-ywa-ł-y książk-i
all morning children read-ywa-past-PL book-PL
‘all morning the children read books’
- b. Dzieci czytywa-ł-y książk-i w każd-ej bibliotec-e
children read-past-PL book-PL P every-FEM.LOC library-FEM.LOC
‘Children read (past) books in every library (from time to time)’
- c. Rank-ami dzieci czyt-ywa-ł-y książk-i
Morning-INSTR.PL children read-ywa-past-PL book-PL
‘in the mornings children read books’

The ungrammaticality of (a) alone completely conflicts with the definition of Iterativity in Bybee et al. (1994). Any objections I have received to (b) are mainly along the lines of “it sounds strange for someone to intentionally read in every library; *czytywać* sounds like the action must be more random than that” essentially, the objections are pragmatic.

¹¹ To keep the example exactly the same as Bybee et al. (1994) I could use the verb *#szuk-iwa-ć*, ‘search-ywać,’ however, this form seems to be objectionable to most of my informants.

Confining *-ywać* to repetitions within a single event does not seem possible, unless the verb has a prefix, or the event takes place over a subjectively long enough period of time, for example, one month, one year, 100 years; I have not found a Polish speaker who accepts *czytywać* over “one day” or “one morning.” Polish speakers do accept *czytywać* over an unspecified number of mornings as in (48-c). We will go into more details with this in the next section; suffice it to say, it is ambiguous as to whether *czytywać*, ‘read-ywać,’ for/in one day would be more likely interpreted as multiple iterations of reading that each last for a day, or can be done in a day.

With a verbal modifier, however, *-ywać* all morning is acceptable, as it is with morphologically basic imperfectives:

(49)

Cały ranek dzieci od-czyt-ywa-l-i książk-i
 all morning children VM-read-ywa-past-PL book-PL
 ‘All morning the children read/were reading books aloud’

The relevant contrast is confounded by the fact that the prefix also changes the verb’s meaning. As assumed in Młynarczyk (2004), however, with a verbal modifier, the *-ywać* suffix seems to secondarily imperfectivize it.

Likewise, *-ywać* also fails Comrie’s (1976) definition of Iterativity. In Comrie (1976), Iteratives are distinguished from Habituals by their inability to be protracted indefinitely. If *-ywać* or one of its allomorphs is used on a verb in the present tense, it clearly can be used for an event that has no protracted beginning or end:

(50)

codziennie czyt-uj-ę książk-i
 every day read-ywa-1sg book-PL
 ‘I read books every day (from time to time)’

This should be ungrammatical if it were Iterative and not Habitual.

The conclusion for these diagnostics is that *-ywać* attached to a verb without a verbal modifier is not iterative, at least not iterative per the definition put forth by Bybee et al. (1994). We could perhaps see a situation where Polish does not distinguish between Iterativity and Habituality. Importantly, however, it is extremely marked, if not outright ungrammatical, to constrain a verb with an *-ywać* suffix without a verbal modifier to a particular number of repetitions.

6.5 *-ywać* Without a Prefix Versus Imperfective

-Ywać without a prefix, while it may be described as *niedokonany* (lit. not-complete) in Polish grammar, is clearly different from imperfective. This can be demonstrated by the following context:

(51)

Q: Co robisz?

‘What are you doing?’

A1: Ja czytam

I read-1sg

‘I am reading’

A2: #Ja czyt-uj-ę

I read-*ywa*-1sg

This shows that *czytywać* is not imperfective in the sense of *czytać*. It is not even entirely clear that ‘I read-*ywać*’ would be a truthful response if the speaker were currently reading. Similar to how unprefixd *-ywać* cannot describe iterativity over a single event, unprefixd *-ywać* cannot describe a habitual action part of which is currently underway. With a VM on the other hand, an *-ywać* response is acceptable:

(52)

Q: Co robisz

‘What are you doing’

A: Ja odczyt-uj-ę

I VM-read-ywa-1sg

‘I am reading aloud’

If we believed, like Bogdan and Sullivan (2009), that *-ywać* verbs with prefixes were in the same category as *-ywać* verbs without prefixes, the facts in examples (51) and (52) might be unexpected. Minimally, this shows that on a verb without a prefix *-ywać* has a different function to *-ywać* on a verb with a prefix. *-ywać* on a verb with a verbal prefix can describe a progressive action currently happening, while without a prefix, it cannot.

More surprisingly, *-ywać* verbs without a prefix can take either *for* or *in*:

(53)

a. Pis-uj-ę list w minut-ę

write-ywa-1sg letter in minute-ACC

‘I write-ywać a letter in one minute’

b. pis-uj-ę list przez minut-ę

write-ywa-1sg letter for minute-ACC

‘I write-ywać a letter for one minute’

In neither (a) nor (b) is *pisywać* ascribed to a period of time (e.g., *pisywać*, ‘write-ywać,’ did not occur during one minute). In the most plausible interpretation of (a), it means ‘I write letters in one minute’ (e.g., ‘I can write letters in one minute whenever I need to’) whereas the most plausible interpretation of (b) means ‘I write letters for one minute and (probably) don’t finish them.’ *In* or *for* one minute, rather than describing the amount of time the ‘write-ywać’ event occurs over, describes the amount of time each individual repetition of the event lasts. The number of repetitions could plausibly be a

lifetime's worth.

This is rather like the English simple present tense 'I write in/for one minute' are both grammatical and can have habitual interpretations, but like in Polish, it is not plausible to think that a single writing event lasts one minute, or repeats through a single minute. Interestingly, the non-*ywać* imperfective form *pisac*, 'write,' can also be interpreted this way (e.g., it can be habitual), but can also be interpreted as a progressive action.

In other words, for all of the plausible interpretations *-ywać* scopes over the quantifier; the amount of time *one minute* does not scope over 'write-*ywać*' and describe how much time 'write-*ywać*' lasted for, instead, the *-ywać* verb scopes over the amount of time, and each iteration of the *-ywać* verb is done within one minute, or for one minute.

It is possible to confine the *-ywać* event over a period of time, but it must be a long amount of time for it to be plausible (probably for pragmatic reasons; an *-ywać* event cannot last a minute or two). My informants rejected interpretations of sentences where the *-ywać* event was bound to even day-long periods for every verb I asked about. In pragmatically possible repetitions of events of a period of time, these will always be ambiguous; saying 'I wrote-*ywać* for a month' could mean something like 'whenever I wrote, it took me one month to finish each instance of writing' or 'I wrote multiple times during a one-month period':

(54)

a. pisywałem listy w miesiąc

write-ywa-past-1sg.masc letter-PL in month

‘I wrote letters in a month/I used to write letters in a month’ *‘It was in a month that I wrote letters’

b. pisywałem listy przez miesiąc

write-ywa-past letter-PL for month

‘I wrote letters repeatedly for a month’ or ‘I started writing letters, would continue on the same letters for a month, and then stop (I may have written letters over multiple months, but it took me one month to do so); the letters are probably not finished.’

Both interpretations seem to be ambiguous as to whether the repeated writing event finished. In (a) multiple letters would have been written (albeit over a long time for writing a letter), while in (b) we could imagine a scenario where a person started writing, continued writing for a month, then stopped before finishing, and then began again. In (a) we cannot get the interpretation where *w miesiąc* ‘in a month’ binds ‘wrote-ywać’ to a period of time. The only valid interpretation is that each writing event took one month, but it happened over multiple months. For (b) both interpretations are possible.

6.6 Conclusions of Diagnostics

Polish perfectives do not violate the technical definitions of Perfectivity by Comrie (1978) or Smith (1991), although there are instances where perfectives are either ungrammatical or marked where we would not expect them. Examples of these additional restriction can be seen with the quantifier *two times* whenever the direct object is destroyed (e.g., I ate (perf) the sandwich two times), and with the quantifier *often*, as well as other quantifiers that imply repetition.

Polish imperfectives, on the other hand, are grammatical in some Perfective situations, and are used to describe more than just Imperfective/Progressive situations.

Polish iteratives do not fit the definition of Iteratives in Bybee et al. (1994) and are likely also incompatible with some of the situations described in Comrie (1976). Polish iteratives are not iterations of an action during one event, but are iterations of an action over multiple events. This seems to be more of an issue of labeling however. Verbs with the *-ywać* suffix and no verbal modifier cannot function in the same contexts as imperfectives. They cannot be bound to a single event.

The *-ywać* suffix can imply a habitual/repetitive meaning, and it can also be imperfective, depending on what it is attached to. It is unlikely to be iterative, going off the definitions of iterativity in Comrie (1976) and Bybee et al. (1994).

CHAPTER 7

DISCUSSION, ADDITIONAL POLISH DATA, AND CROSS-LINGUISTIC DATA

Thus far we see that *-ywać* attached to verbs with a verbal modifier (such as *od-czytywać*, ‘read aloud,’ *o-pisać*, ‘copy,’ and *z-dawać*, ‘take’), or when attached to a perfective root (like *dać~dawać*, ‘give perf~impf’), normally behaves similar to how morphologically basic verbs do. They can be used to describe progressive actions, used with *przez*, ‘for’, used to negate actions, used to describe completed actions that occur multiple times, as well as other uses.

However, *-ywać* without a verbal modifier is most unmarked or acceptable when it describes actions that have repeated over multiple events. The interpretation of an action repeating over multiple events is always possible when we add a temporal modifier. In terms of diagnostics, *-ywać* attached an imperfective verb, or a verb without a prefix, is not Iterative according to Bybee’s definition. It may be iterative if we use the word iterative to describe simple repetition, but *-ywać* verbs can and do repeat over multiple events.

7.1 Imperfectives

As mentioned in the previous section, there are some reasons to doubt that Polish imperfectives really are Imperfective in the cross-linguistic sense. Młynarczyk (2004) intentionally excludes some uses of Polish imperfectives because they are used in a way other than a progressive meaning (translated into *-ing* forms in English, as mentioned in section 3.2).

Dahl (1985) notes that Slavic imperfectives behave differently from the Imperfective in other language groups, including some cases where they bear a Perfective meaning. Imperfectives often could occur in the past tense as unmarked, while in other languages Dahl (1985) sampled imperfectives would be marked in the past. The most striking example of Slavic imperfectives behaving in unexpected ways was ‘he read (impf?) the book’ when used as an answer for ‘Is there any book he has not read already?’ in example (47).

Klimek-Jankowska and Błaszczak (2016) use a mismatch detection test on native Polish speakers in order to test markedness while parsing Polish utterances. They test 40 different perfective~imperfective pairs with the phrases *przez minutę* ‘for one minute’ and *w minutę* ‘in one minute.’ They found no significant effect elicited from mismatches with imperfective aspect, but found significant effects with perfective aspect:

The parser reacted differently to aspectual mismatches. Only the violation of the semantic (compositional) requirements of perfective aspect is visible to the parser due to its marked (semantically specific) status. On the other hand, imperfective aspect is semantically indeterminate (underspecified), hence unmarked and the parser seems to be 'blind' to a violation of its semantic requirements. (p. 1)

Their hypothesis that Polish imperfectives are unmarked is intriguing, especially given that these results are from both basic (unmorphologically marked) imperfectives without

suffixes, for example, [verb], and morphologically marked imperfectives [VM-verb-*ywać*].

At this point the reader may protest the label *imperfective* to describe Polish imperfectives. For simplicity, I will continue to gloss Polish verbs as ‘verb (impf)’ and refer to these as imperfectives. It is a good idea to keep in mind however, that they may not be Imperfective in the generative or cross-linguistic sense.

7.2 Empty Prefixes?

Perhaps more substantial findings in this thesis can be made about the notion of empty prefixes, using *-ywać*, than about solid properties of *-ywać* itself. As summarized in the literature review, Bogdan and Sullivan (2009) believe that instances of empty prefixes, or times where *-ywać* may not be affixed to a [VM-verb] complex, are essentially lexical gaps.

One problem with the notion of empty prefixes is that Polish speakers often seem to have their own opinion about what an empty prefix means. When asking native Polish speakers what exactly the prefixes mean, they give different answers. For two of my informants, one said the prefix *prze-* in *przeczytać* means ‘through’ like the preposition *przez* (e.g., ‘read through’). Another thought that the prefix means ‘to an extreme degree’ as in *prze-gość* ‘a really extreme person’ (so ‘read to an extreme degree’ as in ‘finish the book because you read it so much’). The prefixes are highly idiomatic and we cannot predict what prefix a verb will take just by looking at its imperfective form. There are many different prefixes any verb might take, and many verbs have multiple possible prefix combinations.

From my own informants, and data from the National Corpus of Polish (NKJP.PL), as well as data from other authors (even ones who used the secondary imperfectivization test such as Labenz [2004]), I encounter numerous examples of verbs perfectivized by so-called empty prefixes imperfectivized with *-ywać*.

One such verb is *czytać*, ‘read,’ which is given the “empty prefix” *prze-*

(55)

- a. *czytać* [verb] ‘read (impf)’
- b. *prze-czytać* [VM-verb] ‘read (perf)’
- c. *prze-czyt-ywać* [VM-verb-ywać] ‘read ahead (impf)’

It seems that *prze-* is not quite as empty as it is proposed. Młynarczyk (2004) explicitly states that *prze-* is the empty prefix of *czytać*. Somewhat strangely she says “...the only other obvious candidate form, **przeczytywać*, is clearly wrong to any competent speaker” but then in a footnote linked to that claim says, “Though in some peculiar circumstances it might be used in spite of its incorrectness” (p. 13) without any further clarification.

Very commonly I find through dictionary searches and Polish authors that the verbal modifier *z-* when described as an empty prefix actually forms a secondary imperfective with *-ywać*. This secondary imperfective means something along the lines of ‘finish doing X (impf).’ For example *robić* ‘work/do (impf)’ has the empty prefix *z-* in *zrobić* (according to Młynarczyk the *z-* is empty [2004, p. 8]). However, I very often see *zrobiąc*, which often means ‘finish making (impf)’:

(56)

- jak ma-m to z-rob-ia-ć
- how have-1psg this VM-do-ywa-INF
- ‘How am I supposed to start finishing everything?’

This one does not occur in the Polish text corpus or dictionaries. However, another verb, which in dictionaries is given a perfective with *z-*, is *jeść*, ‘eat (impf).’ Dictionaries also have a *j-adać*, ‘eat-ywać,’ and a *z-j-adać*, ‘finish eating (impf)’:

(57)

- a. *jeść* ‘eat (impf) [verb]
- b. *z-jeść* eat (perf)’ [VM-verb]
- c. *j-adać* ‘eat (iter)’ [verb-ywać]
- d. *z-j-adać* ‘finish eating (impf) [VM-verb-ywać]

The verb *zjadać* seems to be acceptable with *dwa razy*, ‘two times,’ in the way imperfectives are (it is probably imperfective, at least in the Polish language-description sense of the term). Recall example (14) where ‘eat (perf) sandwich’ is ungrammatical with *dwa razy* while the imperfective is:

(58)

- a. #*dwa razy z-jad-ł-em* *kanapk-ę*
two times VM-eat-past-1sg.MASC sandwich-FEM.ACC
#‘I ate the (same) sandwich two times’
- b. *dwa razy jad-ł-em* *kanapk-ę*
two times eat-past-1sg.MASC sandwich-FEM.ACC
‘I ate a sandwich two times’
- c. *dwa razy z-j-ada-ł-em* *kanapk-ę*
two times VM-eat-ywa-past-1sg.MASC sandwich-FEM.ACC
‘I finished eating a sandwich two times’

Labenz (2004) himself noted a so-called “exception” to empty prefixes being prohibited from forming secondary imperfectives, again with an empty *z-* prefix:

As shown in 2.2.1, normally secondary imperfectivisation derives the imperfective from a perfective of meaning related to, but different from that of the original imperfective (cf. Table 1). Thus no aspectual tuple [element] contains more than one imperfective. However, sometimes this can be violated: for instance, the imperfective **zbudowywać* - derived from the perfective *zbudować*,

‘to have built’, which derives from *budować*, ‘to be building’ - means ‘to be building with the intention of completing’. Despite being marked as substandard, such forms seem to be fairly understandable among competent speakers (and perhaps natural among children who already speak the language, but have not yet been taught the correctness rules). (p. 26)

Labenz (2004) goes as far as to mark the verb as ungrammatical and “substandard,” but then later says that competent speakers use it. Again, this pattern of ‘finish Xing’ seems to hold with *z-budować* ‘build (perf).’ I do not feel that I can be sure that all verbs with the *z-* prefix will form a secondary imperfective that means ‘finish Xing’ (where X is the verb in question), but a large number of the empty *z-* prefixed verbs seem to form secondary imperfectives upon closer examination.

My hypothesis for so-called empty prefixes occurring with *-ywać* is that many of these empty prefixes are synchronically not empty. They just happen to be the most common prefix for that verb, the prefix that changes the meaning the least, or perhaps as proposed by Bogdan and Sullivan (2009), the prefix is just unmarked for that particular verb. Bogdan and Sullivan (2009) proposed that the reason why a prefix is unmarked for a verb is due to the spatial relationship of the action with the corresponding preposition. There may be other generalizations we can make as well, however. *Po-* for example, is a common perfectivizing prefix for stative verbs. *Z-* as a prefix is perhaps one of the most common Polish VMs because it synchronically adds completion to whatever the verb means.

It would perhaps be unexpected for a language to develop verbal modifiers from prepositions that correspond to the type of surface on which an action takes place, as Bogdan and Sullivan (2009) propose (recall, in section 3.3 the explanation for *na-pisać*). Polish also provides numerous counterexamples where the preposition does not seem to

correspond well with the geometric orientation of a verb; for example, *po-czekać*, ‘wait (perf) for someone,’ does not seem to be in the same geometric relationship with a surface as *po-grzebać* ‘bury (perf),’ at least not in any obvious way. This could be the case, however, with some verbs like *napisać*. In English there are obvious examples of a preposition corresponding to some geometric relationship of an action such as *run over* and *cool down*.

The prefixes may bear specific meanings with certain verbs, as is the case in Germanic languages, but those meanings are highly idiomatic (consider examples like *pick on* versus *put on*). Descriptively, we may be able to say the prefix *z-* (as in *z-jeść* and *z-jadać*, *above*) in many cases means ‘finish X-ing’ but there is no reason to think *z-* always means ‘finish X-ing.’

7.3 *-ywać*’s Role

The crux of the issue is how to arrive at a model where *-ywać* can have an unmarked or imperfective meaning on the verb when it is attached to a perfective, but an unambiguously habitual/iterative meaning when attached to an imperfective.

Logically, there seem to be several possibilities as to how the *-ywać* suffix interacts with the verb:

(59)

1. *-ywać* verbs with prefixes are imperfective, while *-ywać* verbs without prefixes are habitual. In this view, the suffix is really not the same suffix, but is just phonologically identical (this seems to be Młynarczyk’s view). The unprefixated forms with the *ywać* suffix are fossilized forms from earlier stages in the language.
2. Imperfectives without the suffix are unmarked and imperfectives with the suffix are marked and antidynamic (per Bogdan and Sullivan [2009]) or perhaps antiperfective. In other words, there is something about *-ywać* that cancels out a

perfective.

3. *-ywać* adds meaning to the verbal complex, and does not merely cancel out the perfectivity.

4. Something else.

(2) and (3) would have slightly different predictions. If we viewed (2) featurally, then the *-ywać* suffix takes something away from the perfective. It is a negative feature that results in a habitual or iterative reading when there is no prefix, and when there is a prefix, it would result in aspect being canceled out.

If we believe that Polish imperfectives are really aspectually neutral, as some experimental data seem to show, then 2 seems likely. In a simple mathematical analogy:

perfective = 1

imperfective = 0

ywać = -1

If we add -1 to 1 we get 0 for the aspect, which would then be determined by the context. Bogdan and Sullivan (2009) propose a solution similar to 2, however they put all *-ywać* verbs into one category whether or not they have a prefix. As I showed in section 6.4, this approach does not reflect some Polish facts.

7.4 *-ywać* as an Antimorpheme

The secondary imperfectivization test, as well as the approach in Bogdan and Sullivan (2009), essentially already operates under the assumption that *-ywać* cancels out meaning in some way. To reiterate, the secondary imperfectivization test operates under the assumption that *-ywać* cancels out, or erases, the perfective meaning of a verbal modifier, but does not erase the other semantic content. Bogdan and Sullivan's approach treats *-ywać* as antidynamic: perfectives are dynamic, imperfectives are static, and adding *-ywać*

makes a thing less dynamic and more static. The use of states with habituais is consistent with that in Smith (1991):

Generic and habitual predications are semantically stative. They hold of classes, kinds, or patterns of events rather than specific situations... Habituais are also semantically stative. They refer to a pattern of situations as in 13 [my 60]. (p. 39)

(60)

- a. My cat eats meat.
- b. My cat eats a mouse everyday.

This is also true of this possible explanation, only to describe the iterative/habitual use of *-ywać*, verbs will also need move from 0 to -1:

(61)

- VM-verb = 1 perhaps [+dynamic]
- VM-verb-*ywać* = 0 or verb = 0 perhaps [dynamic]
- verb-*ywać* = -1 perhaps [-dynamic]

There are obvious objections to this, however. In the English examples from Smith (1991), the morphology is not claimed to make the English sentences more stative or less dynamic like *-ywać* is doing in Polish. No phenomenon other than negation itself seems to function this way, and it is difficult to find instances where something is negated to a neutral value (it does exist, however, for example, in English “She is not cool, but she is not uncool”). An approach in this direction would seem to be one that is merely re-describing Polish *-ywać* facts.

It may be possible to modify a Germanicist approach, however, where perfective is [+SQA], imperfective is [SQA], and bare *-ywać* verbs would be [-SQA]. The puzzling, and perhaps insurmountable, obstacle for this direction would be the fact that bare (unprefixed) *-ywać* verbs not only have an unspecified “quantity of A” for their DP constituents, but also repeat an unspecified number of times.

7.5 *-ywać* as a Suffix That Adds Meaning

It would be seemingly straightforward to assign a feature to *-ywać* under a featural description. The preliminary feature I propose for this is an indefinite feature, or [Def: -].

The main problem with this is, again, how to get from perfective to imperfective/neutral, and then how to get from imperfective/neutral to repetitive/habitual/frequentive with that same feature. In fact, we will likely need at least two features to solve this issue in Polish.

While seemingly rare, this phenomenon, where a morpheme behaves differently depending on whether or not it is attached to a word in a like category, is attested in other languages. By something in a like category, I mean for example an imperfectivizing suffix attached to an imperfective verb instead of being attached to a perfective verb. In Inuktitut, Johns (2006) proposes a solution where a suffix, *-si-*, that behaves differently depending on whether it is attached to an antipassive or not as both the same suffix (data from Johns [2006]):

(62)

a. Peter *pisu-si-juq*

Peter walk-*si*-intr.3sg

‘Peter began walking’

b. Peter *surak-si-juq anautar-mik*

Peter break-*si*-intr.3sg stick-MIK

‘Peter broke the stick (antipassive)’

c. *anguti kunik-si-si-vuq arna-mik*

man kiss-*si-si*-3sg woman-MIK

‘The man is starting to kiss the woman (antipassive)’

In the above example, (62-a) shows a situation where *-si-* is used to form an inceptive. (b) shows a situation where *-si-* is used to form an antipassive, while (c) shows a doubling of

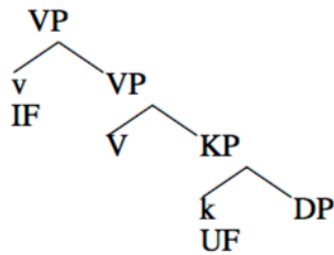
-si- where one means intransitive and one means antipassive. Like in Polish where the function of *-ywać* depends on whether the verb is imperfective or not, in Inuktitut the function of *-si-* depends on whether or not the verb is antipassive. Unlike in Polish, we can actually see the *-si-* morpheme being stacked in Inuktitut. In Polish, if there is any stacking, it is stacking upon the thematic vowel, or perhaps on the more abstract imperfective feature of the verb, rather than stacking *-ywać* twice.

In Johns' (2006) approach, *-si-* functions as an indefinite quantifier (p. 17). Like in Polish, the two *-si-* readings have predictable occurrences, but it is not entirely straightforward how a single feature can cause one reading versus another. Johns (2006) simply uses an indefinite feature, and asserts that the position it is in the structure determines the meaning. When the indefinite quantifier is outside of the VP, it is interpreted as inceptive aspect. When inside the VP, however, *-si-* is simply atelic:

When these features are located outside the VP, they are interpreted as inceptive aspect. Within the VP, while they maintain aspectual features, they are simply atelic. Most importantly, from their position in little *v*, they form a link with accusative case.... When the indefinite quantity features are outside of the *vP*, they are interpreted as indefinite activity external or peripheral with respect to the event or action. When they are merged in the little *v* position, these same atelic features result in imperfective or indefinite boundary with respect to the event. In little *v* position these features, which are interpretable, can form an agreement relation with little *k*. However, unlike most uninterpretable features, these are quite unspecified as to the category they are seeking to agree with, i.e. they have no Match properties. In the antipassive, these features form an AGREE relation with the interpretable aspectual features in little *v*. (pp. 17-19)

It is not entirely clear why an indefinite feature outside of the *vP* would be interpreted as inceptive aspect, nor is it clear why things outside of the *vP* are necessarily interpreted as external to the action. Johns (2006) does not provide a straightforward explanation for those facts. When in an Agree relation, the tree for this is as follows (taken from Johns, 2006, p. 19):

(63)



Little *k* is an uninterpretable feature. From its position on little *v*, *-si-* is able to enter an agreement relation with it. Johns (2006) argues that this approach where both instances of *-si-* are “the same features in different positions of the syntax tree” is preferable to one where they are unrelated because it explains the homophony. Johns (2006) cites Halle and Marantz (1993), which claims that syntactic features are spelled out in phonology (rather than morphemes existing on their own). According to Johns (2006), the fact both instances of *-si-* are homophonous reflects this fact.

This indefinite analysis harkens back to the Germanicist approaches like Verkuyl and Schoorlemmer in Chapter 3. From what is in Johns (2006), it is not clear whether or not Inuktitut *-si-* can co-occur with [+SQA] DPs (e.g., DPs marked with demonstratives, definite articles, or with numerals). If we apply this approach to Polish, then the scope of *-ywać* would vary depending on whether or not the verb has a verbal modifier.

It is likely not possible to use the Johns (2006) approach to explain what we see in Polish. The explanation for Inuktitut was tied between the *v* head, and the direct object, which is arguably¹² not the case with *-ywać* in Polish (given that *-ywać* occurs on both

¹² Verkuyl (1993) argues that in Russian, perfective verbs cannot drop a direct object while imperfective verbs can (recall example 21). It may be possible to have an analysis where [[[VM-[verb]]-ywać] and Polish bare imperfectives are antipassive, or at least have some antipassive analogs. However there is no morphological evidence on Polish DPs, unlike Inuktitut DPs, to show that the DP object of an imperfective verb is different from

transitive and intransitive verbs, and in both cases can have either iterative or habitual meaning).

A parallel between the indefiniteness in Johns (2006) and the Polish data, however, could be that *-ywać* in verb-*ywać* specifies an indefinite number of repetitions. We see in the diagnostics that verb-*ywać* repeats an undetermined number of times (rather than a limited number of times). For that same reason it is habitual, and not iterative. The verb-*ywać* form without a prefix can, for example, co-occur with *rankami*, ‘in mornings,’ (plural) but not with *ranek* ‘in the morning.’

If we postulate that if *-ywać* scopes above the verb phrase, then it should be able to see whether or not a VM is present. However, like in Johns (2006), *-ywać* is an indefinite quantifier.

The proposal is that *-ywać* enters an Agree relationship with the Perfective head. The VM is the Specifier for the Perfective head. The two features on *-ywać*, or the Aspectual head, are indefinite, or [Def: -] and [F:], while the two features on the Perfective head are [F: +] and [Def:], where F stands for ‘feature.’ There are reasons for being not explicit about the value of the feature. As we have seen in previous sections, the VM often adds a semantic flavor to the verb in addition to perfectivity. Perfectivity and Imperfectivity, in this approach, necessarily result from a combination of features, rather than being single features themselves.

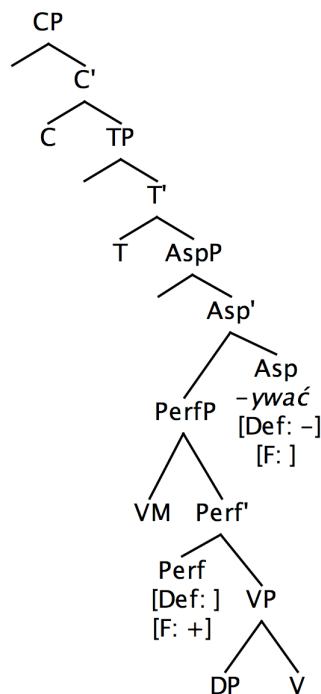
In terms of position on the tree, I presume *-ywać* is higher up than the VM so that it is

the DP object of a perfective verb. It would also be very difficult to argue for antipassives syntactically, as the only evidence so far is DPs being dropped in Polish, a prodrop language with free word order and discontinuous phrases (see Siewierska, 1984) for further discussion on Polish free word order). Direct objects of perfective verbs can also be dropped.

able to scope over the VM and verb. Through reverse agreement however, we could have a model where *-ywać* is lower; the level in the tree is not crucial for this approach as long as they are in the same C-Command domain. If we think of the relation of the morphemes, the presumed direction of derivation is traditionally *verb* → *VM-verb* → *VM-verb-ywać*, which is also more consistent with a model that presumes *-ywać* attaches later.

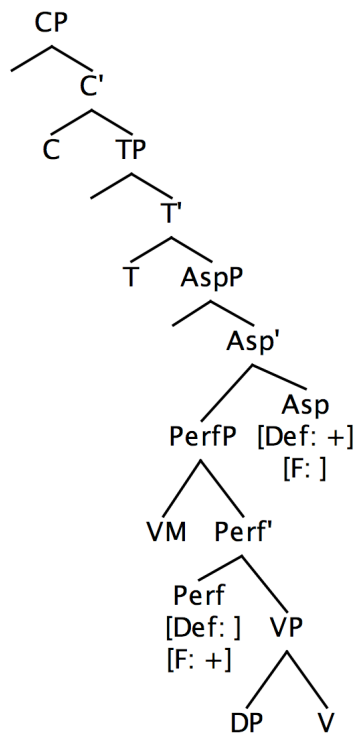
For simplicity in illustrating the basic approach, I will posit an empty Aspectual head when *-ywać* is not present. In terms of how the system works, the unvalued feature [F:] on *-ywać* probes within its C-Command domain to Agree with the interpretable [F: +] on the VM. The unvalued [Def:] feature on the VM agrees with the interpretable [Def: -] provided by *-ywać*:

(64) *VM-verb-ywać*



In example 64, *ywać* has an indefinite feature [Def: -] as well as an unvalued [F:]. The Perfective head has an [F: +] and an unvalued definite feature, which is then valued by *-ywać*. In terms of Agree relations, the VM-verb-*ywać* is the easiest structure to explain, as all features are valued and specified without empty heads. Later examples will require stipulations.

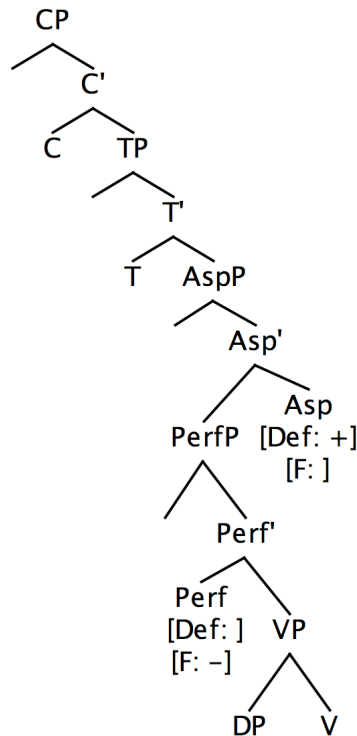
(65) VM-verb



Without *-ywać*, the Aspectual head in example 65 is [Def: +] [F:]. The Perfective head has the same features as in the previous example, and the unvalued [F:] on the Aspectual head agrees with the features on the Perfective head. The result of this is a perfective interpretation. Perfective actions necessarily occur a definite number of times. For some actions, such as when a direct object is destroyed, there are pragmatic reasons

why perfective actions can only occur one time (e.g., it is possible to ‘read (perf) the book’ two times in Polish, but not possible to ‘eat (perf) the sandwich’ two times), but they necessarily occur a definite number of times.

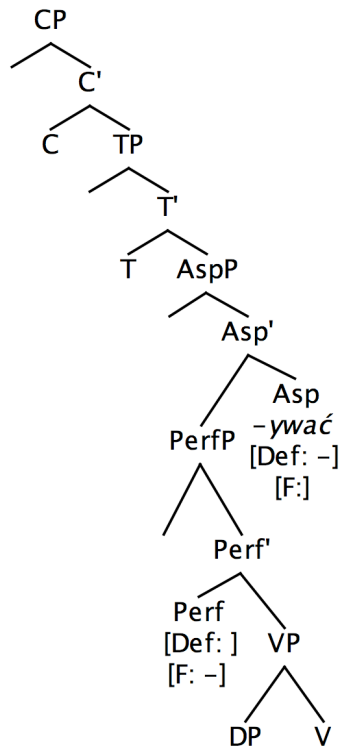
(66) verb



When a VM is absent, the default for the Perfective head is [F: -] [Def:]. This makes some explanatory sense, as we would not expect features associated with a VM to be there when a VM is absent. The Agree relation in example 66 is the exact opposite of the situation in example 65. We would expect this example to correspond with imperfectives that have a progressive interpretation, for example, *jadłem kanapkę*, ‘I was eating the sandwich (Lit. eat (impf) sandwich-acc).’ Imperfectives with a habitual or generic interpretation would not fall under example 66, but instances of imperfectives repeating a

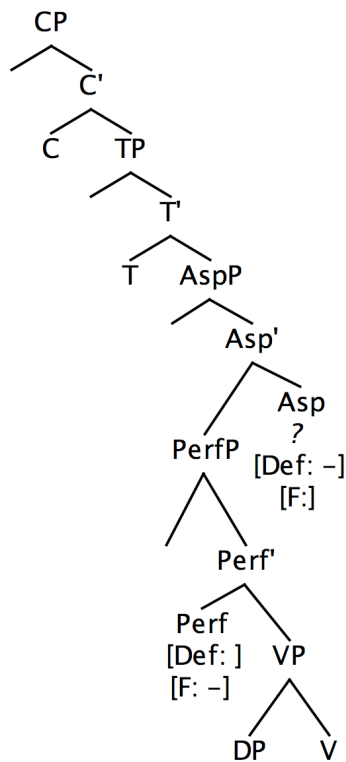
determined number of times do fall under example 66.

(67) verb-*ywać*



In the verb-*ywać* situation, like in example 64, the [Def:] probe enters an Agree relation with the indefinite quantifier. This time however, the [F:] probe of the aspectual head enters an Agree relation with [F: -]. The interpretation of this is habitual.

(68) verb (indef?)



The indefinite/habitual/general fact use of imperfectives (e.g., *mowię Polski* ‘I speak (impf) Polish’) remains open to question. In example 68, it may be that there is a null indefinite quantifier that allows for these constructions to have a generic or even habitual interpretation. It might also be that when *-ywać* is not there as an indefinite quantifier, the definiteness is actually open to interpretation, so imperfectives can take either [Def: +] or [Def: -].

The interpretations are summarized in the following example:

(69) Summary

[F:]	[Def:]	Interpretation
[F: -]	[Def: -]	Habitual/indefinite repetition
[F: -]	[Def: +]	Progressive/definite repetition
[F: +]	[Def: -]	habitual/general fact
[F: +]	[Def: +]	Perfective

Indefiniteness corresponds to an action occurring a quantitatively indeterminate number of times. It is possible to have imperfective actions which occur with both a valued [Def: +] feature or a valued [Def: -] feature, but perfectives necessarily can only occur with [Def: +], as they occur a specific number of times (most often one time). The habitual/general fact and progressive/definite interpretation would both be given the label imperfective. Morphologically, they both appear to be identical.

An approach where imperfectives may be either definite or indefinite, corresponds not only to the fact that an imperfective may have a habitual or general-fact interpretation, but also to observations we have seen on DPs; the fact that a DP object of an imperfective verb may be either specific/definite or unspecific/indefinite corresponds to many of the observations in the literature (e.g., Filip [1993], Schoorlemmer [1995]).

7.6 *-ywać* as Two Different Homophonous Suffixes

A more straightforward approach is to analyze both interpretations of *-ywać* as two homophonous morphemes. The same could be said of *-si-* in Inuktitut, especially given that we see examples in Johns (2006) where a verb has multiple *-si-* suffixes (as in [62-

c]). In this approach one *-ywać* would be imperfective (as in Młynarczyk [2004]), while the other would be habitual.

This solution would still have some complications shared with the same-suffix solution. The largest is still how to get from perfective to imperfective, while still having a perfective element (the VM). In the same suffix solution, we used two features to solve that problem. In the different suffix solution, there are two possible ways to handle this, neither one is fully satisfactory.

One is to simply treat the VM-verb complex as a single lexeme, a compound. The *-ywać* suffix simply adds an imperfective feature to this compound. There are some datapoints that make this proposition plausible such as *pisać*, ‘write (impf),’ becoming *o-pisać*, ‘copy (perf),’ once the VM *o-* is prefixed to it. However, we are still left with the problem that without *-ywać* these verbs would be perfective: *opis-ywać*, ‘copy (impf),’ versus *opisać*, ‘copy (perf).’ The only way I can see to handle that is for a VM-verb compound to be default [+perf] while a verb without a VM by default is [+impf].

Another way to handle this is to follow a procedure similar to the same-suffix approaches. The *-ywać₁* suffix enters into an Agree relation with the VM which is interpreted as imperfective. A different *-ywać₂* suffix is habitual, and assigns that feature to the verb without a VM. There still remains the big question of how exactly an interpretation *-ywać* with the VM would lead to an imperfective parsing in Polish.

CHAPTER 8

CONCLUSIONS

We see that *-ywać* seems to be both habitual and imperfective. Descriptively, this depends on whether or not there is a VM, or from another point of view, whether what *-ywać* suffixes onto is perfective. The reasons for this are, logically, that either there are two homophonous suffixes or that *-ywać* has a feature which is interpreted differently depending on the features of the verb it is suffixing onto.

Polish imperfectives fit a variety of situations that we may not expect following a conceptualization of Imperfectivity in Smith (1991) or Comrie (1976); some situations Polish imperfectives are used for would be Perfective in Comrie (1976) and Smith (1991). Those imperfectives represent whole events viewed externally, such as in repeated actions, or general facts that occurred in the past like “Leo Tolstoy wrote *War and Peace*” (recall example [46]). Polish perfectives, on the other hand, seem more restricted than the usual Comrie (1976) and Smith (1991) ideas on Perfectivity.

8.1 Conclusions on Empty Prefixes

In some approaches to Polish aspect (e.g., Młynarczyk [2004] and Labenz [2004]), there are prefixes that add only perfectivity to a verb, with no other semantic addition. For the following reasons, the claim that there are empty prefixes is problematic:

1. As Bogdan and Sullivan (2009) point out (quoted in Chapter 4), native Polish speakers were “completely unanimous that [na-pis-ywać; ‘VM-write-ywać’] should not mean the same thing as *pisać* [‘write’]” (p. 54). If [VM-verb-*ywać*] is imperfective, and the VM is devoid of meaning, then we would expect this to mean the same thing as the morphologically basic verb.
2. As shown in section 7.2, other verbs with empty prefixes such as *czytać~prze-czytać*, ‘read,’ mean different things when given the *-ywać* suffix: *czytywać*, ‘read from time to time,’ and *przeczytywać*, ‘read ahead.’
3. Even native Polish-speaking authors who accept the idea of empty prefixes, such as Labenz (2004), have their own examples showing alleged exceptions, and these exceptions had some degree of predictability (e.g., the structure [z-verb-*ywać*] very often meaning ‘finish verb-ing’).

At minimum, there are many exceptions where verbs seem to not have an empty prefix, which cannot be explained by the system in Młynarczyk (2004) or Labenz (2004).

We can see regular patterns with certain so-called empty prefixes, where after *-ywać* is attached, the prefix clearly means something. As mentioned, the *z-* prefix is the most common example of this, where [z-verb-*ywać*] commonly means ‘finish verbing’ but other so-called empty prefixes may also exhibit this behavior in certain instances (e.g., *po-*verb-*ywać* often means ‘verb for a little while (impf)’). Prescriptively, Polish speakers may view these forms to be incorrect. Importantly, Młynarczyk (2004) and Labenz (2004) both acknowledge and cite instances of *-ywać* attaching to verbs with an empty prefix. The content of these so-called empty prefixes may even contribute to the proposition of the verb (as we see in *prze-czyt-ywać*, ‘read ahead (impf).’

There may be no VMs that are devoid of semantic content in addition to perfectivity, or there may be a large number of perfectives that have no form with an empty VM.

8.2 Questions regarding *-ywać*

The property of *-ywać* does not seem to be imperfectivizing in a straightforward way. Whether or not *-ywać* imperfectivizes a verb depends on whether or not the verb is perfective. We see in Chapter 6 that the interpretation of *-ywać* does not fit the definition of an iterative from Bybee et al. (1994) or Comrie (1976) when affixed to a verb that is already an imperfective. It is better described as habitual because an *-ywać* verb does not necessarily have a limited number of iterations, and is not necessarily constrained to a single event (recall Chapter 6, ‘I read-*ywać* in every library’).

A unified treatment of *-ywać* is possible, but requires multiple interacting features. Treating *-ywać* as an indefinite quantifier does explain the interpretation of verb-*ywać*. Essentially, the action is interpreted as repeating an indefinite number of times which is why children can read-*ywać* in the mornings, but not *read-*ywać* all morning. There are more problems, however, with trying to explain how the same indefinite quantifier can cancel the perfectivity of a verb. I handled this with two interacting features, an unspecified F-feature and then definiteness.

The other possibility, of course, which Młynarczyk (2004) assumes, is that both *-ywać* are in fact distinct, but homophonous, suffixes. The *-ywać* her approach works for is the imperfective *-ywać*. In that case, the interpretation questions are still difficult to explain. How it is that an imperfective feature enters into an Agree relation with a perfective VM, and the result is imperfective?

I suspect that classifying the two interpretations of *-ywać* as different suffixes is an artefact of analysis. If we assume that *-ywać* is imperfectizing in a straightforward way, and Polish has a binary aspectual system, then it follows naturally that those instances of *-ywać* attaching to imperfectives are exceptions. It would be difficult to explain *-ywać* with two homophonous suffixes each applying only one feature. There would likely need to be two or more features even for that type of analysis.

8.3 Areas for Further Research

It does not necessarily follow naturally that *-ywać* is imperfectivizing, in fact, the model in section 7.5 assumes it is not. This is a common assumption, however, and in fact may hold true even under a different unified analysis. If we speculate that *-ywać* is in fact imperfective rather than indefinite, then attaching it to verbs that are already imperfective should be redundant. However, we see that they are interpreted as habitual, rather than redundantly imperfective:

(70) imperfective redundancies

- a. [pisać]_{impf} ‘write (impf)’
- b. [czytać]_{impf} ‘read (impf)’
- c. [pis]_{impf}-[ywać]_{impf} ‘write from time to time/write habitually’
- d. [czyt]_{impf}-[ywać]_{impf} ‘read from time to time/read habitually’

This would raise an interesting question: How do forms that are seemingly redundant (e.g., an imperfective verb receiving additional imperfective morphology) receive paradigmatic meaning? If we assume *-ywać* is an imperfectivizing suffix (as Młynarczyk [2004] does), then how do we have a regular paradigm, where an imperfectivizing suffix on an imperfective means something predictably different from an imperfectivizing suffix

on a perfective. Possible answers to that question would have implications for grammaticalization, but they are beyond the scope of this thesis.

Another area in need of further research is the seeming definiteness, or perhaps specificity, of DP objects following a perfective verb (recall examples 14 and 56 where ‘two times eat-impf sandwich’ is good, but #‘two times eat-perf sandwich’ is not). This thesis focuses on the relation between the VM , *-ywać*, and various sentential elements (but not DPs). The quantifier *dwa razy*, ‘two times,’ does provide some evidence in favor of the Germanicist approach, where Slavic aspect, like Germanic aspect, has at least some parallels with or implications for features on the DP.

Following naturally from that is another area in need of further research: quantifiers in Inuktitut. What happens to DP objects of verbs in Inuktitut quantified with two times? Are there similar restrictions as there are in Polish? If so, then parallels between the two problems may be solvable in similar ways from a more universalist standpoint instead of from a description of one language.

8.4 Final Remarks

Recall the central questions from the introduction:

- Is the property of *-ywać* and its allomorphs imperfectivizing, or is it something else?
- Given that the semantic contribution of *-ywać* when added to prefixed verbs appears different from its semantic contribution when added to unprefixed verbs, is a unified treatment of *-ywać* possible? Or must these be treated as two homophonous but distinct elements?

- Are there any cross-linguistic parallels?
- Is the position that there are empty prefixes (or prefixes that do not contribute any semantic meaning to the verb) viable?

The answer to the first question is not quite conclusive. We know they are not iterative in the Bybee et al. (1994) and Comrie (1976) senses of the word (as in a series of iterations that pertain to a single event). We clearly see that *-ywać* verbs can be imperfective, and can be habitual, but this depends, descriptively at least, on the environment of the suffix. We can also see difficulties for an approach where *-ywać* is simply imperfectivizing.

A unified approach is possible but complicated. In order for one to work satisfactorily, there needs to be a more well-defined set of features which explains how we can arrive at both habituais and imperfectives depending on whether or not the verb is perfective/has a VM. In Chapter 7 I provide an approach with two features, but left one undefined.

The answer to the third question as to whether or not there are cross-linguistic parallels, is yes whether or not we view both interpretations of *-ywać* as the same suffix. Inuktitut also has a situation where a morpheme behaves differently depending on whether or not the verb has a feature, which seems to match the feature of the morpheme (e.g., imperfective to imperfective; antipassive to antipassive). If we view them as different suffixes, then Inuktitut and Polish both have homophonous suffixes, where the meaning of those suffixes corresponds, in Polish, to whether or not the verb has a VM, and in Inuktitut, to whether or not the verb has a DP object.

On empty prefixes, the answer to this is likely no, or at least there are a substantial

number of verbs where the prefix is demonstrably not empty. The fact that the Polish speakers that Bogdan and Sullivan (2009) surveyed, as well as my informants, claim that a verb with the structure VM-verb-*ywać* means something different from that verb's basic form, would also suggest that these prefixes are not truly empty.

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