

## A MINIMALIST ANALYSIS OF COMPOUND FUTURE IN POLISH

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### 1. Introduction

In the present study I will be concerned with the derivation of the Polish syntactic construction known as *compound future* in one of its two variants, i.e. the one using an incomplete verbal past tense form. The second available form of Polish *compound future* uses the infinitive of the verb instead of the past form. Both variants are exemplified below:

- |     |           |         |                                   |       |
|-----|-----------|---------|-----------------------------------|-------|
| (1) | Hydraulik | będzie  | naprawiał                         | kran. |
|     | Plumber   | will be | repaired <sub>past</sub>          | tap.  |
| (2) | Hydraulik | będzie  | naprawiać                         | kran. |
|     | Plumber   | will be | (to) repair <sub>infinitive</sub> | tap.  |
- 'The plumber will be repairing the tap.'

The question I will raise is about the mode of derivation of the compound future in Polish. I will adopt the framework of the *Minimalist Program* as outlined in Chomsky's works (1993, 1995). The real purpose of this study is not to confront some new challenging data, but rather to illustrate how the minimalist method deals with a relatively simple syntactic derivation. I believe that this discussion will be illuminating since the question of the application of the minimalist tenets in the practice of derivation is far from obvious.

### 2. The compound future using past tense morphology

#### 2.1. The data

As already mentioned, one of the two variants of the compound future in Polish uses incomplete past tense (preterite) verb forms. The incompleteness of such forms lies in that they lack a personal suffix. Such an incomplete preterite verb form may be referred to as an *l-stem* or *non-personal preterite*. Complete preterite forms are

formed by adding past tense and person suffixes to a verb stem which is derived from the infinitive by the subtraction of the infinitival suffix *-ć*. For example, if the infinitive is *robić*, 'to do', the PC stem is *robi*. The past tense and person suffixes in singular are as follows:

Table 1. The past tense and person suffixes in singular in Polish.

	Feminine	Masculine	Neuter
1st person	<i>-ła -m</i>	<i>-ł -em</i>	–
2nd person	<i>-ła -ś</i>	<i>-ł -eś</i>	–
3rd person	<i>-ła</i>	<i>-ł</i>	<i>-ło</i>

The tense-person complex expresses also gender and number distinction. There are a number of reasons why I assume in Table 1 that gender and number are carried by a tense suffix, and not by a person suffix. First, note that in plural, the past tense suffix used with nonpersonal noun phrases, i.e. *-ły* differs phonetically from the past tense suffix used with personal noun phrases *-li*, and the personal vs. nonpersonal opposition is a plural variant of a gender distinction, as exemplified by the paradigm below:<sup>1</sup>

Table 2. The personal vs. impersonal opposition in plural.

	Nonpersonal	Personal
1st person	<i>-ły -śmy</i>	<i>-li -śmy</i>
2nd person	<i>-ły -ście</i>	<i>-li -ście</i>
3rd person	<i>-ły</i>	<i>-li</i>

Besides, if the number affixes were added to person affixes then the inventory of personal endings would be larger, and dependent on the gender distinction. Gender would then be specified twice in a (past) tense suffix, by *-ł* vs. *-ła* opposition, and in an alleged person/number suffix by *-y* vs. *-i* opposition, which would be an unwanted redundancy of the inflectional system.

Furthermore, considering the appearance of personal, gender and number affixes in Polish conditional constructions with modal verbs, e.g. *Bym<sub>1st person</sub> potem mogła<sub>fem-sg</sub>/mógł<sub>masc-sg</sub> ją łatwo znaleźć* ('So that I might find it easily later'), and subjunctives like: *Chcę abyś pisała<sub>fem</sub>/pisał<sub>masc</sub>* ('I want that you wrote'; 'I want you to write') it becomes quite evident that the gender/number affix stays attached to the past tense morpheme of the verb while a person affix alone may "float".

<sup>1</sup> In the plural, the nonpersonal verb forms are used with all noun phrases except those denoting male human beings. Thus, they are used, for example, with feminine plural nouns. Noun phrases denoting male persons demand personal verb forms.

Finally, I regard as significant the fact, that in Polish [gender] is only a feature of Past verbs, not of Present verbs; e.g. *pila<sub>fem</sub>* ('she drank') vs. *pił<sub>masc</sub>* ('he drank'); *pije* ('she/he drinks'). It is thus the quality of Tense that determines the category [gender] and not the quality of [person]. For all these reasons, I conclude that gender and number distinctions are carried by a past tense inflection, and not by a person suffix.

The other element needed for the formation of the compound future in Polish is a finite form of the verb *być* 'to be'. I will not be concerned here with the morphological composition of personal forms of *być*, and let me only note that the form is invariant with respect to gender distinctions, as illustrated by (3)-(6) below:

- |     |                                 |                          |                            |                        |
|-----|---------------------------------|--------------------------|----------------------------|------------------------|
| (3) | chłopiec/on<br>the boy/he       | <i>będzie</i><br>will be | <i>rzucił</i><br>throwing  | <i>piłkę</i><br>a ball |
| (4) | dziewczynka/ona<br>the girl/she | <i>będzie</i><br>will be | <i>rzuciła</i><br>throwing | <i>piłkę</i><br>a ball |
| (5) | oni<br>they(masc.)              | <i>będą</i><br>will      | <i>rozmawiali</i><br>talk  |                        |
| (6) | one<br>they(fem.)               | <i>będą</i><br>will      | <i>rozmawiały</i><br>talk  |                        |

## 2.2. The inventory of functional categories

The above data are relevant for the determination of the feature composition of the functional categories AgrP and TenseP in Polish. In the present analysis I will assume after Thráinsson (1996) that a functional category F may be present in some clauses of a language L, i.e. in these clauses in which there is evidence for it, but F may be absent from these clauses of the language L in which there is no evidence for it. Thráinsson calls this assumption *Functional Projection Alibi (FPA)*. The acceptance of FPA entails a rejection of a strong version of *The Structural Uniformity Hypothesis (SUH)* which holds that "Clausal architecture is completely determined by UG in the sense that all clauses in all languages have the same set of functional categories and their sequence (c-command relations) is uniform" (Thráinsson 1996: 255). The extension of FPA is *The Real Minimalist Principle (RMP)*: "Assume only those functional categories that you have evidence for", where evidence may have two sources: word morphology, and syntactic configuration e.g. word order patterns. I will agree also with Iatridou's suggestion that "evidence for an AgrP [...] will have to be found in each language separately" (Iatridou 1990: 553), and thus languages may have an unsplit, (i.e. pre-Pollockian IP) unless there is evidence suggesting the opposite<sup>2</sup> (cf. Pollock 1989).

<sup>2</sup> The anonymous reviewer rightly points out that the assumptions I make are also on a par with Sola's (1996) view that "A morpheme (feature value) can be identified in a word if this word minimally contrasts with another word for this morpheme (feature value)" (Sola 1996: 226). But, at the same time I do not share some further Sola's views, e.g. that "weak features would be features that are simply absent in the relevant inflected word" (Sola 1996: 228). The acceptance of such a stand must result in a conclusion which Sola explicitly makes, that overt movement is the only one available (cf. Sola 1996: 221). This view is not represented in my analysis in which I follow Chomsky (1993: 95) in assuming the presence of both weak and strong features and overt and covert movement.

I interpret the above proposals as a rather orthodox version of morphology-driven syntax in which the selection of functional categories from the available universal inventory is always determined individually for each lexical item. A consequence of such a stand would be a postulate that verbal affixes have as their “mirror reflections” a set of corresponding syntactic functional heads and the order of these heads is straightforwardly reflected in the order of verbal affixes. Not all verbal features are represented by affixes, however. For example, a Case assigning feature of a transitive verb is intrinsic and may only be associated with a verbal stem and not with any affix. Such “stem features” should be checked prior to any other features.

Given the morphological evidence discussed in the previous subsection, and assuming Baker’s (1988: 13) Mirror Principle I would like to suggest the following composition of functional heads in the architecture of a past tense clause in Polish:<sup>3</sup>

(7) PersonAGR<sub>S</sub> – T – AGR<sub>O</sub> – V’- V”

Under the interpretation of the Mirror Principle adjusted to the minimalist program, suffixes closer to a stem of a verb must be checked first, hence occupy a lower position in a structure.

Now I would like to raise some questions concerning the association of the past tense morpheme on the verb with a specific [+Past] value of the functional category Tense. In particular, there appears a question of the possibility of the “tense mismatch” between the future time reference of the compound future which uses the future auxiliary, and the past tense morphology of the main verb. First of all, there is no simple relation between the category of grammatical tense and ontological time.<sup>4</sup> Next, on strictly minimalist grounds, it is not necessary that the appearance of the future auxiliary and the l-participle in one clause has to cause a tense value mismatch. Note that there is only a binary opposition of grammatical and morphological tenses in aspectually unmarked main verbs in Polish, i.e. a present-past opposition: e.g. *piję-pilem* ‘(I) drink-(I) drank’. But, perfective verbs cannot express present tense meaning at all, and when conjugated according to the present tense pattern they convey the future meaning, e.g. *wypiję* ‘I will have drunk’. The future copular auxiliary is also conjugated according to the present tense pattern. An obvious interpretation of these facts is that in Polish, like in English, there is no morphological future tense, only present and past. The future meaning of the aspectually marked (perfective) verbs is derived by the combination of present tense and perfective aspect. For aspectually unmarked (imperfective) verbs future reference is achieved in the context of a future copula, which is a kind of future aspectual auxiliary.

<sup>3</sup> The sense of Baker’s (1988) Mirror Principle we adopt is that the arrangement of functional heads mirrors the arrangement of affixes, and not that affixes are added to a stem in a syntactic derivation. It is only such a narrower interpretation of Baker’s insights that is compatible with a Strong Lexicalist Hypothesis.

<sup>4</sup> For example, in Russian past tense verb forms may express past, present or future reference, and German Präsens is used for future reference.

It may thus be possible that the category Tense appears within a single sentence structure twice, once to attract the Tense feature of the main verb, and once to attract the Tense feature of the future auxiliary. The features differ in value and they are checked by different functional heads, hence there need not be a tense value mismatch. I will return to this issue shortly.

Returning now to (7) the presence of Agr<sub>O</sub> in the structure is motivated mainly syntactically, e.g. by the facts concerning the positionality of verbs with respect to VP-related adverbs (see e.g. Śpiewak and Szymańska 1995). But, it seems that, at least for transitive verbs, the presence of Agr<sub>O</sub> is also motivated morphologically – by overt case inflections on object DPs. In this sense, verb movement to a category Agr<sub>O</sub> from which these nominal inflections can be checked in a spec-head relationship is indispensable. Significantly, the T of (8) checks also [number] and [gender], while PersonAgr<sub>S</sub> checks only [person].

The sequence of (7) may be exemplified by (8):

(8) *Pisa<sub>stem</sub>-le<sub>past/masculine/singular</sub>-m<sub>1st person</sub> list.*  
‘I wrote a letter.’

### 2.3. The derivation of compound future using a non-personal preterite

Following the strong lexicalist hypothesis of the minimalist program I will assume that the non-personal preterite of (1) above and (9) below, enters syntax equipped with tense and agreement inflections, which will have to be checked in the structure in appropriate checking domains.

(9) (Ty) *będziesz pisał list.*  
You will be wrote letter.  
‘You will be writing a letter.’

Following FPA, I will assume that the features to be checked carried by the non-personal preterite in (9) (*pisał*) are: [past], [singular], [masculine]. These three features are carried by one morpheme, hence should be checked *en bloc* by one functional category, which I will refer to as Tense.

Following the structure-building format of derivations in Chomsky’s (1995) version of the minimalist program, the first step in the derivation of (9) is the formation of the merger of the verb with the object DP, with the verb projecting. Given that the verb has only one internal argument, no selection of a second DP is made for the position of [Spec,VP] and V’ automatically extends to V” yielding (10):

(10) [<sub>V</sub>’ [<sub>V</sub>’ *pisał* [<sub>DP</sub> list]]]

The next step is the merger of the newly formed V” with an abstract light verb head V, with V projection yielding V’. The verb V now raises overtly to the light

verb  $\underline{V}$ . Next, a subject DP is selected, according to the requirements of the Theta Theory and placed in [Spec, $\underline{V}$ ] yielding (11):<sup>5</sup>

(11) [ $\underline{V}$  [ $\text{DP}_{\text{ty}}$ ] [ $\underline{V}$  [ $\underline{V}$  pisał]<sub>i</sub> [ $\underline{V}$  [ $\underline{V}$  t<sub>i</sub> [ $\text{DP list}$ ]]]]]]

The feature-bearing elements of the configuration (11) must now be checked against the features of appropriate functional categories. Following the FPA, the inflectional properties of the verb show that there is a need for only two functional categories: Agr<sub>O</sub> and Tense. The latter of the two carries also agreement features number and gender. Each of these two functional categories must now independently enter the derivation by the operation *Merge*. The first to merge is Agr<sub>O</sub>. The relevant feature-checking configuration after this first occurrence of *Merge* is given in (12):

(12) [ $\text{AGR-O}$  [ $\text{AGR-O}$  AGR-O [ $\underline{V}$  ty pisał list]]]

Now, there is a question of the strength of the features involved in (12). As I claim elsewhere (cf. Tajsner 1998) the property of the Polish clausal structure is the presence of a strong nominal feature in Agr. This feature emerges in Agr heads, thus in both Agr<sub>S</sub> and Agr<sub>O</sub>, but in (12) which lacks Agr<sub>S</sub> its only possible location is Agr<sub>O</sub>. Due to the presence of a strong feature in Agr<sub>O</sub> one of the two DP of (12) has to overtly raise to [Spec,Agr<sub>O</sub>], and this move, as predicted by Holmberg's Generalization, is accompanied by a local verb movement to Agr<sub>O</sub>. Assuming that the rising DP is subject, the resultant configuration would be (13):

(13) [ $\text{AgrO}$  ty<sub>j</sub> [ $\text{AgrO}$  [ $\text{AgrO}$  pisał]] [ $\underline{V}$  t<sub>j</sub> t<sub>i</sub> list]]]

Later, the object DP would have to covertly move to Agr<sub>O</sub>P, presumably by adjunction to Agr<sub>O</sub>, for accusative Case checking.

The verbal features require however, that the derivation be continued with another occurrence of *Merge*. This time the Agr<sub>O</sub>P must merge with another functional

<sup>5</sup> The anonymous reviewer questions the validity of the reference to the "requirements of the Theta Theory" under the adoption of the "orthodox" version of the minimalist program. I do not share his/her views in this respect. I believe that theta requirements do not disappear with the disappearance of the D-structure and the Theta Criterion. The presence and distribution of theta roles are no longer enforced by the Theta Criterion, but follow as a computational necessity. As discussed by Chomsky (1995) there is a possibility of a derivation of *John likes Bill* in which *John* is inserted directly in [Spec. INFL], not raising from VP, like in (i) below:

(i) *John* INFL VP

Such a derivation would block a desired one with raising of *John* from [Spec.VP] because it is more economical; it involves a single insertion instead of an insertion and movement. As stated by Chomsky: "All formal features are checked as or by free riders. The only defects of the unwanted derivation lie in theta theory: the argument *John* lacks a theta role and *like* does not assign its external theta role. If either of these properties constitute a violation of FI (Full Interpretation), the derivation crashes, and the problem disappears." Chomsky 1995: 315. It is in this sense that I refer to the requirements of the Theta Theory taking care of the phenomenon of "theta-relatedness", which is a "base property", complementary to feature-checking, which is a property of movement.

category Tense. This move is necessary because the verbal inflection represents the features tense, number and gender. Even though these features are weak, and need not be checked overtly, the merger of Agr<sub>O</sub>P with Tense is indispensable in overt syntax or else the structural conditions for at least two covert occurrences of Move at LF would not be created. These two applications of movement are: the raising of the verb to Tense, plus the raising of the subject DP to some higher Spec position for the checking of the nominal features. By the economy principle *Procrastinate* these movements are delayed till after spell-out. The structure after the merger with Tense is (14):

(14) [ $\text{T}$  [ $\text{T}$  Tense [ $\text{AgrO}$  ty pisał list]]]

The derivation of the string represented by (14) would anyhow have to crash with two features of the subject DP unchecked, i.e. its nominative Case feature, and its person feature. Let us assume now, that the feature which checks nominative Case resides in Polish not in Tense, but rather in Agr<sub>S</sub>.<sup>6</sup> Nominative Case checking is then performed in a spec-head relationship between a DP in [Spec,Agr<sub>S</sub>] and Agr<sub>S</sub>. As a result, it may not be checked in the configuration (14). Independently, we have seen that the facts of verbal morphology in Polish suggest that the feature [person] is separated from the features [gender] and [number], hence must be checked by a different functional category, possibly (Person)Agr<sub>S</sub>.

What are the ways of saving (14)? Consider first an option that TP merges with Agr<sub>S</sub>. The resultant configuration would be (15):

(15) [ $\text{AGR-S}$  [ $\text{AGR-S}$  AGR-S [ $\text{T}$  [ $\text{T}$  Tense [ $\text{AGR-O}$  ty pisał list]]]]]

Given, that the strong nominal feature emerges in Agr<sub>S</sub>, the subject DP has to rise overtly to [Spec,Agr<sub>S</sub>]. As a by-product, this move would lead to nominative Case checking before spell-out. But, the derivation would anyhow have to crash at LF; Agr<sub>S</sub> contains the feature [person] but this feature is missing from the verb morphology in (15), and thus cannot be checked. Instead, it appears more felicitous to merge it directly with an inflected form of the copula verb *być* needed for the formation of compound future, i.e. *będziesz*. Apart from being a future reference marker this element has an important role of an (imperfective) aspect marker. Therefore, I will label it ASP. The resultant structure is then:

<sup>6</sup> Chomsky (1993) assumes an option of Case checking in a spec-head relationship with Agr<sub>S</sub>: "We therefore assume that T raises to Agr<sub>S</sub>, forming [ $\text{Agr T Agr}$ ] (...); the complex includes the phi-features of Agr and the Case feature provided by T,V" (Chomsky 1993: 7-8). My position is stronger: not only is Case checked in [Spec, Agr<sub>S</sub>] in Polish but it actually is one of the agreement features. The argument is based on the cases of "verbs of lacking" in Polish which display the following characteristic properties: even when inflected for Tense they do not check nominative Case, and show no agreement inflection, e.g. (i) below:

(i) Brakowało pieniędzy na książki.  
lacked money<sub>GEN</sub> for books  
'There was not enough money for books.'

(16)  $[_{ASP}[_{ASP} \text{ będziesz}[_{T'}[_{T'} \text{ Tense } [_{AGR-O} \text{ ty pisał list}]]]]]$

But, the introduction of the inflected future copula induces further syntactic steps; first the future copula is inflected for [Present] Tense, which should be checked by another Tense head, thus ASP'' must merge with Tense<sub>2</sub> to form configuration (17):

(17)  $[_{T'}[_{T'} \text{ Tense}_2[_{ASP} \text{ będziesz Tense}_1 \text{ ty pisał list}]]]$

Next, since the copula is inflected also for [person] this feature must be checked (covertly) by Agr<sub>S</sub>, hence the configuration of (17) merges with Agr<sub>S</sub>, yielding (18):<sup>7</sup>

(18)  $[_{AgrS}[_{AgrS} \text{ Agr-S}[_{T'} \text{ będziesz Tense}_1 \text{ ty pisał list}]]]$

Next, the strong nominal feature emerges in Agr<sub>S</sub> and attracts the subject DP to [Spec, Agr<sub>S</sub>]. The subject DP moves through [Spec, Tense<sub>1</sub>] checking the features [number] and [gender] as "free riders", then through [Spec, Tense<sub>2</sub>] probably checking again [number] (see note 7), and when already in [Spec, Agr<sub>S</sub>] checking nominative Case and the feature [person]. The result of this final syntactic computation is (19) below, the structure of (9).

(19)  $[_{AgrS} \text{ ty}[_{AgrS} \text{ AgrS}[_{T'} \text{ t}_i[_{T'} \text{ Tense}_2[_{ASP}[_{ASP}[_{ASP} \text{ będziesz }[_{T'} \text{ t}_i[_{T'} \text{ Tense}_1[_{AGR-O} \text{ t}_i \text{ pisał list}]]]]]]]]]]]]]$

The derivation is completed at LF by a series of covert head-to-head movements: of the verb-AgrO complex *pisał* to Tense<sub>1</sub>, and of the copular verb *będziesz* to Tense<sub>2</sub> and to AgrS. Additionally, the object DP covertly raises to [Spec, AgrO].

A controversial step in the above derivation is the introduction of the second Tense head. It seems, however, that this move is enforced by verbal morphology and cannot be arbitrarily ignored. The value of Tense<sub>2</sub> is different from the value of Tense<sub>1</sub>, i.e. [Present] vs. [Past] but it does not have to give rise to any "tense conflict" since the two are checked by distinct verbal heads.

Let us consider now some other derivational options for the non-personal preterite *pisał*. When the computation reaches the stage of Tense Phrase, it might, for example merge with an inflected modal verb, like *mogłeś* ('you could<sub>masculine/singular</sub>')<sup>8</sup> This situation is illustrated in (20):

(20)  $[_{Mod}[_{Mod}[_{Mod} \text{ mogłeś}[_{TP} \text{ ty pisał list}]]]]]$

An obvious problem with such a choice would be that the modal *mogłeś* is inflected not only for tense and [person], but also for [gender] and [number]. These verbal features would have to be checked by an independent Tense head to which the modal would be attracted. Even though an independent Tense head is morphologically motivated (the modal verb carries its own Tense inflection) the features [number] and [gender] carried by the modal verb cannot be checked by any DP in [Spec, TP<sub>2</sub>] because these features of the only DP available, i.e. *ty*, have already been checked in [Spec, TP<sub>1</sub>] and erased. The derivation must therefore crash and the resultant structure is ungrammatical:

(21) \*Ty mogłeś pisał list.

The only possibility for a TP [<sub>TP</sub> *ty pisał list*] appears thus to form a merger with a lexical item which fulfills two general conditions, which I would like to refer to as *Merge Conditions*:

(22) *Merge Conditions*

α merges with β if:

- i/ β provides conditions for a successful checking of the features carried by α;
- ii/ β does not introduce any new features which cannot be checked within the same minimal clause.<sup>9</sup>

Note, that the first of these two conditions is motivated on economy grounds; there are no vacuous instances of *Merge*.<sup>10</sup>

The above two prerequisites are met by a future copula, but also by conditional auxiliaries *by*, *byś*, *byśmy* etc. Such auxiliaries are inflected for person, which is the feature missing from the verb in preterite, and introduce a new feature [conditional], but they do not duplicate features which could not be independently checked, e.g. [number] and [gender] inflections. Consider the pair of examples (23) and (24), the two variants of Polish conditional constructions:

(23) Ty byś pisał list.

(24) Ty pisałbyś list.

<sup>9</sup> There is an immediate problem of what should count as a minimal clause. Without going deep into the issue it may be suggested that a clause extends to a domain of the next subject, where the subject is associated broadly with a position of an external argument, i.e. subject A-position. These subject A-positions may be either θ, or non-θ positions. Thus, e.g. in an English constructions *I want to go home*, the two elements in subject A-positions are *I*, and *PRO*, both in θ-positions. In *She seems to be happy* the two subjects, i.e. *She* and *trace* occupy a non-θ and a θ-position, respectively. And in a construction *She may go home* there is only one possible (L-related) subject A-position in [Spec, VP]. The second candidate, i.e. a possible position [Spec, ModPhrase] is not L-related (A-) position, and hence may not be a subject position. The last example contains thus only one clause.

<sup>10</sup> In the formulation of (22ii) I have followed the anonymous reviewer's suggestion that it should mention features in general, both weak and strong, and not just weak features which I originally assumed.

<sup>7</sup> In present tense verbs the distribution of inflectional features appears different from this in past verbs. For example, the verb *piszemy* ('we write') has a morphological structure: *pisz-e*<sub>Present tense indicator</sub> *-my*<sub>3rd person plural</sub>. The [number] feature is thus carried by a [person] suffix, not a tense indicator, while [gender] is not represented at all.

<sup>8</sup> Another modal having analogous properties would be *powinieneś* ('you<sub>singular/masculine</sub> should').

In (23) the auxiliary precedes the verb, which naturally accords with the treatment of this element as a separate auxiliary which merges with a TP. In (24), however, the conditional element is attached to the end of the verb, which may suggest it is a verbal affix. As a verbal affix, it should, according to the Strong Lexicalist Hypothesis, enter syntax as a part of the verb. But, as argued by Witkoś (1998) the conditional elements in both (23) and (24) should be treated as separate lexical heads, and not verbal affixes. The verbal form of (24) would then be derived by overt verb incorporation to a conditional head. The facts on which this conclusion is based concern the stress placement in Polish conditionals and the phonological process of vowel change from [o] to [u]. First, in conditional forms like *pisalbyś* stress falls on the first, and not on a penultimate syllable. This suggests *pisalbyś* is not one word since word stress in Polish is uniformly on the penultimate syllable. Next, Polish inflectional processes regularly involve [o] to [u] alternations, e.g. *mole* [mole] ~ *mól* [mul], *pomogłem* [pomogłem] ~ *pomógł* [pomugw], *mokła* [mokwa] ~ *mókl* [mukw]. This alternation is not observed in the case of conditional forms: *móklby* [mukwby] ~ *mókl* [mukw], and not: \*[*móklby*] ~ [mukw], which suggests that conditionals are not formed by lexical inflectional processes, but rather syntactically.<sup>11</sup>

I find these arguments quite persuasive and thus two different modes of derivation will be suggested within the present framework for the forms (23) and (24). In the case of (24), the TP *ty pisał list* would merge with a conditional marker, as in (25):

(25) [<sub>ConP</sub>[<sub>Cond</sub> byś [ty pisał list]]]

Next, the non-personal preterite would incorporate to the head of Cond", and the V-Cond complex would raise to Agr<sub>S</sub>, resulting in (26):

(26) [<sub>AgrS</sub>"ty<sub>i</sub>[<sub>AgrS</sub>'[<sub>AgrS</sub> pisałbyś<sub>j</sub>][<sub>CondP</sub> t<sub>i</sub> t<sub>j</sub> list]]]

In the case of (23), on the other hand, the first step would also be the merger of *byś* with the TP *ty pisał list*. But then the conditional marker would only be raised to Agr<sub>S</sub> for [person] checking, and the incorporation of the verb to the conditional marker in Agr<sub>S</sub> is postponed till after spell-out. The difference in the mode of derivation in the two cases would have to now be related to the strength of the feature [cond], so that the optionality of movement is eliminated.

There is one more general point relating to the mode of application of *Merge* that I would like to raise. The issue concerns the positions in which various Polish lexical auxiliaries enter the derivation. Under one view, shared by Boskovic (1995), Polish auxiliaries (inflectional, e.g. *żeśmy*, and conditional) first occupy a head position of some AuxP and climb to Agr<sub>S</sub> (or I or T). The second view advocated by Witkoś (1998) (and e.g. Rivero 1996) is that they enter the derivation as heads of Agr<sub>S</sub> (I, or

<sup>11</sup> There is a similar lack of [o] to [u] alternation in the formation of Past Gerund verb forms ending in *-wszy*, *-wszy*, e.g. *plótl* [plutw] ~ *plótlszy* [plutwśy]. Note however, that the formation of such forms belongs to derivational, not inflectional, morphology.

T). I would like to propose that verb morphology be used as a criterion for settling the controversy in this respect. If a Polish auxiliary intrinsically carries a future, which is not represented by its inflection but rather "encoded" in its stem, then such an auxiliary enters the derivation as a head of a specific AuxP. For example, the conditional particle *by* intrinsically carries a feature [cond] and forms a head of a specific AuxP, namely CondP. If it does not carry any inflection, hence has no further features to check, it does not have to raise to appropriate feature-checking domains and may stay *in situ* throughout the derivation, unless some other element in the structure "attracts" its "stem feature". Such appears to be the case when the conditional marker occurs with an impersonal modal, like *można* 'it is possible' in sentences like (27):

(27) Można by iść do kina.  
could cond. go to cinema  
'One could go to the cinema.'

Because the conditional marker has a V feature to be checked by a verb then there is overt or covert incorporation of the (impersonal) verb to it. If, however, the marker itself is inflected for [person] (e.g. *byś*) then this feature has to be checked in an appropriate checking domain and the conditional auxiliary, or the feature [person] alone at LF, has to raise to Agr<sub>S</sub>. Likewise, non-inflected modals like *można*, *trzeba*, *wolno*, *powinno się*, etc. are heads of their own ModPs (AuxPs). There is a similar situation with respect to the future auxiliary needed for the formation of compound future. As already noted, this auxiliary has an aspectual role to perform which becomes evident if we see that it may never be used with perfective verbs in Polish. Morphologically, perfective verbs are characterized by the presence of a prefix, e.g. *wypić* – *wy+pić* (to have drunk).<sup>12</sup> Such verbs cannot be used in compound future, as illustrated by (28)-(29):

(28) On będzie pił/pić.  
he will be drank/drink  
'He will drink.'

(29) \*On będzie wypil/wypić.  
he will be have drunk

I will interpret this restriction as a case of "aspectual conflict". The future copula is an imperfective aspectual marker thus intrinsically carries a verbal feature [+imperfective]. This feature has to be checked by an aspectual feature of the main verb. Naturally, the incorporated aspectual verb feature may only be [+imperfective], or else "aspect conflict" occurs.

<sup>12</sup> A few perfective verbs are unprefixated, e.g. *dać* (to have given).

### 3. Conclusions

The approach presented results from a rather orthodox application of the computational options provided by the minimalist program. It follows a strong Lexicalist Hypothesis and two Thráinsson's (1996) hypotheses referred to RMP and FPA. Moreover, it highlights the role of *Merge* in derivation. Unlike some less strictly minimalist approaches it postulates that all structure be morphology driven, there is no initial template to which a given configuration has to fit. Instead, the structure is consecutively built so that it could satisfy current lexical needs. The derivational scenario is roughly this: once a lexical head is selected from the lexicon, the derivation is basically determined by its initial numeration. Each feature of the lexical head is automatically linked with an appropriate functional category. Once a larger structure is built, the features carried by its other members require that it merge with further functional or lexical heads.

Concluding, let me enumerate the issues that I believe the method discussed here tackles with a relative simplicity. With respect to the question of the presence of particular functional heads in the structure it postulates that they are present only if required by verb morphology or specific "stem properties" like transitivity. Second, the question of the order of functional heads is settled in a uniform way: the order is a "mirror reflection" of the arrangement of affixes "from stem to right" and is determined for each structure independently. Third, the role of *Merge* is unified; both lexical and non-lexical heads are inserted in the derivation by the application of *Merge*. Fourth, the motivation for *Merge* is uniform; the existent phrase merges with a new head if some of its features may not be checked. Fifth, it imposes some restriction on *Merge*; no *Merge* is possible with a new head if this head introduces features that cannot be checked.

### REFERENCES

- Abraham, W., Epstein, S., Thráinsson, H. and C. Zwart. (eds.). 1996. *Minimal ideas*. Amsterdam: John Benjamins.
- Baker, M. 1988. *Incorporation. A theory of grammatical function changing*. Chicago: University of Chicago Press.
- Boskovic, Z. 1995. Principles of economy in nonfinite complementation. Unpublished PhD dissertation, University of Connecticut.
- Chomsky, N. 1993. "A minimalist program for linguistic theory". In Hale, K. and S. J. Keyser, (eds.). 1-52. (reprinted as chapter 3 of Chomsky 1995).
- Chomsky, N. 1995. *The minimalist program*. Cambridge: MIT Press.
- Gussmann, E. (ed.). 1995. *Licensing in syntax and phonology*. Lublin: Folium.
- Hale, K. and Keyser, S.J. (eds.). 1993. *The view from Building 20*. Cambridge: MIT Press.
- Iatridou, S. 1990. "About AgrP". *Linguistic Inquiry* 21. 551-576.
- Pollock, J.-Y. 1989. "Verb movement, Universal Grammar, and the structure of IP". *Linguistic Inquiry* 20. 365-424.
- Rivero, M. 1996. "Verb movement and economy: Last resort". *University of Trondheim Working Papers in Linguistics* 28. 211-227.
- Solá, J. 1996. "Morphology and word order in Germanic languages." In Abraham, W. et al. (eds.). 217-251.

- Śpiewak, G. and Szymańska, J. 1995. "A poll on Pollock – functional categories in Polish". In Gussmann, E. (ed.). 125-145.
- Tajsner, P. 1998. *Minimalism and functional thematization*. Poznań: Motivex.
- Thráinsson, H. 1996. "On the (non-)universality of functional categories". In Abraham, W. et al. (eds.). 253-281.
- Witkoś, J. 1998. *The syntax of clitics. Steps towards a minimalist account*. Poznań: Motivex.