1. Introduction

It is well known in the Polish descriptive literature that non-agreeing predicates in -no/-to are not passive; that is, they contain no voice-altering morphology. This can be demonstrated on the basis of the fact that the /-no/-to/ morpheme patterns with a full-fledged, syntactically-active external argument; it can be affixed to raising, unaccusative, and psych verbs (without violating a constraint on “vacuous dethematization” (Marantz 1984)); and structures with /-no/-to/ lack a passive przez-phrase. These facts are given shortly in (1-8). I will not dwell on -no/-to’s non-passive status; it is basically uncontroversial, and voice, per se, is not a primitive in most theories of grammar.¹

The central concern of this paper is the status of the /-no/-to/ morpheme itself. Namely, what is its syntactic status, where is it generated in the structure, and how does it combine with the verb-stem? In short, if /-no/-to/ is not a voice-altering morpheme, then what exactly is it doing? These questions will be considered from a “separationist” view of morphology. Separationism refers to theories of morphology which allow the morphosyntactic features of a given object to be separated from its phonological expression (see Harley & Noyer 1999 for general discussion; see Halle & Marantz 1993 and Beard 1995 for specific proposals).² If /-no/-to/ is not a voice-altering morpheme attached in the lexicon, as I will propose, then there is no a priori requirement that it enter the syntactic derivation as part of the verb-stem. At the same time, however, we know that /-no/-to/ is pronounced as a verb-final affix. The main theoretical question, then, is whether the morphosyntactic structure of a particular term is necessarily isomorphic with its morphophonological realization (see Borer 1998). Stated informally, can /-no/-to/ be viewed as having a syntactic life of its own despite the fact that at some level of Spell-Out it is pronounced as a bound morpheme? The treatment of -no/-to to

¹ Note that italicized “-no-to” (-no/-to) refers to the predicate type, while “-no/-to” enclosed in slashes (/no/-to/) refers to the morpheme itself.
follow necessarily argues against isomorphism of morphosyntactic and morphophonological structure. I will show that the syntactic representation of -no/-to is at odds with its morphophonological representation.

First, I present evidence that -no/-to is not formed in the lexicon: that is, there is no lexical entry like *zrobić* ‘they made’ or *wziąć* ‘they took’. Instead, I will argue that /-no/-to/ is interpreted in the head position of a higher functional projection. While this proposal accounts neatly for this construction’s properties, we are still left with having to account for the fact that /-no/-to/ and the verb-stem are pronounced together. That is, we have to resolve, in some sense, the mismatch between what we interpret and what we hear. The final question, then, is whether the movement necessary to bring the affix and the verb-stem together is obligatorily the result of purely syntactic mechanisms. I will propose that there is no compelling reason to join the verb-stem and /-no/-to/ in the syntax. Instead, I will propose that the affix and verb-stem are joined in the Phonological Component of the derivation.

2. Basic Facts of -no/-to

The presence of a syntax/morphology mismatch is first suggested on the basis of -no/-to’s distribution. In (1) we see that /-no/-to/ does not disrupt a predicate’s basic thematic structure: the external argument appears as a pro-arb, while the direct internal argument is mapped onto an ACC NP. The passive *przez*-phrase is ungrammatical since the external argument is fully thematic.

(1) a. Znaleziono niemowlę w koszu (*przez lekarzy).
   found:-NO baby:ACC in basket by doctors:ACC
   ‘They found a baby in a basket.’

   b. Stefana wzięto do wojska (*przez rząd)
   Stefan:ACC taken:-TO to army by government:ACC
   ‘They drafted Stefan into the army.’

To clarify, I am not proposing a theory in which all phonological information is inserted late. In this respect, I follow Caink’s (2000) ‘Semi-Post-Lexicalist’ approach, developed from Emonds 1994 and 1999.

The mismatch between morphosyntactic and morphophonological structure discussed above will henceforth be referred to in simplified terms as the syntax/morphology mismatch, that is, the mismatch between the representation of hierarchical syntactic structure and word formation.
The fact that this external pro-arb argument is syntactically active is shown on the basis of the binding and control facts in (2-4):

(2) Binding of Anaphors
   a. **Sprzedano** swoje samochody.
      sold:-NO REFL automobiles:ACC
      ‘People sold their (own) automobiles.’ [Kupść & Marciniak 1997:203]
   b. Bito_{i} strażników_{j} swoimi_{i/*j} ich_{i/*j} łańcuchami.
      beat:-TO guards:ACC REFL their chains:INST
      ‘They_{j} beat the guards_{j} with their_{i/*j} chains.’ [Kibort 2000]

(3) Control of Adverbial Gerund
   a. **Ten** książkę czytano siedząc przy kominku.
      this book:ACC read:-NO sitting:GER by fireplace
      ‘People read this book sitting by the fireplace.’ [Dziwirek 1994:191]
   b. Wracając do domu, śpiewano piosenki.
      returning:GER home sung:-NO songs:ACC
      ‘They sang songs returning home.’ [Maling 1993]

(4) Control of Infinitival PRO
   Na wzgórzu zaczęto [PRO budować dom].
   on hill began:-TO to-build house:ACC
   ‘They began to build a house on the hill.’

Next, note that the /-no/-to/ morpheme combines with raising, unaccusative, and psych verbs. Under a passive analysis for this morpheme, such affixation should be ruled out by some notion of vacuous dethematization; in all such cases, there is no external theta role to affect. Under theories of Passive, such as Jaeggli 1986 and Baker, Johnson, & Roberts 1989, where the passive morpheme itself is an argument assigned the external theta role (deriving “theta absorption”), instances of /-no/-to/ on predicates lacking such a theta role should violate the theta-criterion. Thus, the examples of /-no/-to/ with Raising Predicates,

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* Note, for example, that in the case of the Polish passive, the dethematized matrix external argument fails to control the implied subject of adverbial gerunds. Compare (3a-b) with (ia-b) below:

(i) Control of Adverbial Gerund: Passive
   a. *Ta książka była czytana (przez Janka) siedząc przy kominku.
      this book:NOM,F was read:F by Janek sitting:GER by fireplace
      returning:GER home were sung:PL songs:NOM
Basic Unaccusatives, and Object- and Subject-Experiencer Verbs, given in (5-8), provide further evidence against /-no/-to/ as a voice-altering morpheme.

(5) Raising Predicates
a. Zdawano się ciebie nie widzieć.
   seemed:-NO REFL you:GEN NEG see
   ‘They seemed not to see you.’

b. Zdawano się tego nie dostrzegać.
   seemed:-NO REFL this:GEN NEG notice
   ‘They seemed not to notice this.’ [Kibort 2000]

(6) Basic Unaccustives
a. Umierano tam tysiącami na tyfus.
   died:-NO there thousands:INST on typhus
   ‘People died there in thousands from typhus.’ [Śpiewak & Szymańska 1997:150]

b. Toniać / topiono się w morzu, a nie w wannie.
   drowned:-TO drowned:-NOREFL in sea and not in bathtub
   ‘People drowned in the sea, not in a bathtub.’ [Rozwadowska 1992:62]

Turning to Experiencer Verbs, according to Belletti & Rizzi’s (1988) unaccusative analysis, these predicates contain two internal arguments, an Experiencer and Theme, and no external argument. In the Object Experiencer predicate in (7a) below, the Theme raises either for Case (Belletti & Rizzi 1988) or to satisfy the EPP-requirement of the finite Tense projection (Chomsky 1998; Lavine, Harves, & Billings, to appear). In (7b), the Theme is realized as -no/-to’s pro-arb argument. Note that the passive in (7c) is degraded under the non-volitional (non-causative) reading for the Theme, providing additional evidence for the unaccusative status of this predicate type.

(7) Object-Experiencer Verb
a. Active
   Dziennikarze zmartwili Jana wiadomościami z Polski.
   journalist:NOM upset Jan:ACC news:INST from Poland
   ‘Journalists upset Jan with news from Poland.’

b. -no/-to
   Zmartwiono Jana wiadomościami z Polski.
   upset:-NO Jan:ACC news:INST from Poland

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5 Basic Unaccusatives in -no/-to require imperfectives (Cetnarowska 2000), a fact that I take to be related to the availability of a pro-arb sentient participant.
'They upset Jan with news from Poland.'

c. Passive
?? Jan został zmartwiony przez dziennikarzy.
Jan:NOM AUX:PAST upset by journalists:ACC
‘Jan was upset/saddened by the journalists.’

In the case of the Subject-Experiencer Verb in (8), the derived subject is the underlying direct object Experiencer. The Theme now appears internally and is assigned oblique case by the verb or by a preposition selected by the verb. Subject-Experiencer Verbs appear with reflexive się. Here the contrast in grammaticality between the -no/-to form and the passive is more robust.

(8) Subject-Experiencer Verb
a. Active
Profesorzy zdumiały się wybrykami studentów.
professors:NOM amazed REFL actions:INST of-students
‘Professors were amazed at the students’ actions.’

b. -no/-to
Zdumiano się wybrykami studentów.
amazed:-NO REFL actions:INST of-students
‘People were amazed at the students’ actions.’ [Rozwadowska 1992:64]

c. Passive
*Wybryki studentów zostały się zdumiane przez profesorów.
actions:NOM of-students AUX:PAST REFL amazed by professors:ACC
‘The students' actions were amazed at by the professors.’

At this point, we can conclude that /-no/-to/ has no selectional restrictions in terms of its combinatorial properties: **this is unlike passive participial morphology and like auxiliaries.** The fact that /-no/-to/ and overt tense marking auxiliaries are in complementary distribution suggests that /-no/-to/ itself might be a tense-marking auxiliary. Note first the facts in (9):

(9) a. Pszenicę (* było / * jest / * będzie) siano jesienią.
wheat:ACC AUX:PAST AUX:PRES AUX:FUT sowed:-NO in-fall
‘They always sowed wheat in the fall.’ [Dziwirek 1994:178]

b. Stefana (* było / * jest / * będzie) wzięto do wojska.
Stefan:ACC AUX:PAST AUX:PRES AUX:FUT taken:-TO to army
'They drafted Stefan into the army.'

Oesterreicher (1926) observed that the ACC direct object after predicates in /-no/-to/ came to be used productively only after the auxiliary’s disappearance. Compare Old Polish (10) and (11). The cooccurrence of /-no/-to/ and ACC objects in (10) gives way to the pattern in (11), from the same period of Old Polish, in which the auxiliary ceases to appear in this construction:

(10) Old Polish
a. Nie obleczesz się w rucho, [jeżto
   NEG will-dress:2.SG REFL in garment:NEUT.SG which::NOM/ACC/NEUT.SG
   z wełny a ze lnu tkano jest].
   from wool and from linen woven:NEUT.SG -NOAUX:PRES
   ‘You shall not wear a garment that is woven of wool or of linen.’ [Deut 22,11
   from Biblia Królowej Zofji, 15th Cent., cited in Oesterreicher 1926:55]

   b. Lata Pańskiego był wielki mor w Polsce... [a przyniesiono
   of-year of-lord was great famine in Poland and brought:-NO
   go było z Węgier].
   him:ACC AUX:PAST from Hungary
   ‘During the rule of the gentry there was a great famine in Poland...and he was
   brought from Hungary.’ [15th Cent.] [Oesterreicher 1926:56]

(11) Old Polish
a. I smiotano nań wielką grumadę kamienia.
   and raised:-NOon-him great bunch:ACC of-stone
   ‘And they raised over him a great heap of stones.’ [Jos 7,26 from Biblja
   Królowej Zofji, 15th Cent., cited in Oesterreicher 1926:55]

   b. Przykazał, [aby łódkę uczyniono z rokiciny].
   he-ordered COMP:boat:ACC made:-NO from wicker
   ‘He ordered that a boat be made of wicker.’ [1510] [Brajerski 1979:91]

The examples in (11) reflect the syntax of -no/-to in Modern Polish. Under the hypothesis that /-no/-to/ itself was reanalyzed as an auxiliary element heading a tense projection, all the facts given above fall out automatically. First, auxiliaries are functors with respect to the verb’s theta- and case-assigning properties. They have no argument structure (or “meaning”) of their own, and, as a result, they simply inherit the argument structure and case-marking properties of the predicate with which they compose (see Di Sciullo &
Williams 1987). If the verb-stem’s argument structure is not affected by /-no/-to/ affixation, then the robust subject properties of the external argument and the lack of a passive *przez*-phrase are not surprising. Thus, the following facts, given in (12), follow from the AUX HYPOTHESIS for /-no/-to:

(12) AUX HYPOTHESIS for Polish /-no/-to/
   a. ACC object
   b. *AUX
   c. *przez-*phrase
   d. -no/-to + unaccusatives and psych verbs
   e. subject binding and control
   f. [+ past]

To summarize thus far, I have suggested that Polish /-no/-to/ is not a voice-altering derivational morpheme, but rather an independent syntactic head, occupying a position in the Tense system. This analysis has been shown to provide a unified account for the wide range of seemingly unrelated phenomena given in (12). In particular, the AUX HYPOTHESIS for /-no/-to/ explains the key diachronic fact of its development: the loss of tense-marking auxiliaries in the erstwhile passive occurred precisely at the time that /-no/-to/ came to appear with ACC objects.

Having provided a theory of /-no/-to/’s syntactic status, we now turn to the question of where the /-no/-to/ morpheme enters the structure in section 3. Section 4 is devoted to the question of how /-no/-to/ is attached to the verb stem, and what we learn from this more generally about word formation and the location of Morphology in the grammar.

3. Structure

Following Borsley & Rivero 1994, I will assume that there are two positions in which auxiliaries can appear in Polish. I will refer to the higher of these positions as T(ense)P and the lower as an AuxP. The two positions are separated by a Negation projection,

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6 See Lavine 2000 for discussion of the AUX HYPOTHESIS with respect to Ukrainian -no/-to. In the case of the Ukrainian construction, the AUX HYPOTHESIS fails to apply and the properties listed in (12b-f) are absent.
which will serve as one of our main diagnostics for identifying where /-no/-to/ is generated. Note the structure in (13):

(13) **AUX Positions**

The two different types of auxiliaries are the past-tense clitic Person-Number (P-N) markers and the clitic conditional *by*, on the one hand, and the non-clitic auxiliaries, *bydo:*PAST, *został:*PAST *jest:*PRES, and *będzie:*FUT, on the other. The discussion of detached clitic auxiliaries (that is, the possibility of filling the higher AUX position in (13)) applies only to those speakers for whom P-N markers can function as independent syntactic entities (which, according to Witkoś 1998, concerns mainly speakers of rural dialects in the south of Poland). I follow Booij & Rubach 1987 and Witkoś 1998 in assuming that the formation of the so-called “incorporated” past tense takes place in the lexicon (contra Borsley & Rivero 1994). The detached-clitic and incorporated past tense forms are exemplified in (14):

(14) **Past Tense Formation**

a. Detached Clitic

Ty-ś widział tę książkę?

you:NOM PN:2SG saw this book:ACC

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7 The [+ past] interpretation of /-no/-to/ predicates has not been discussed in the text, though this tense restriction is reflected in the English glosses. Note that a specification for tense is consistent with the hypothesis that /-no/-tol/ occupies the head of an auxiliary projection.
b. Incorporated Past Tense
   Ty widziałeś tę książkę?

   ‘Did you see this book?’ [Borsley 1999]

Borsley & Rivero (1994) assume that the P-N markers are immobile and, thus, always occupy the higher AUX position in (13). In the case of the incorporated past tense, as in (14b), they assume overt Verb Movement to I (or T) to account for the surface word order. As noted by Witkoś (1998), Śpiewak & Szymańska (1995), and others, overt V-I in Polish is problematic on various grounds. First, from a feature-checking perspective, whatever feature drives this movement in the case of the incorporated form would remain unchecked when incorporation fails to apply, falsely predicting (14a) to be ungrammatical. A second problem for overt V-I movement (noted by Śpiewak & Szymańska 1995) is that in non-past forms, NEG precedes the main verb in Polish clauses, as shown in (15-16):

(15) NEG-Verb Order
    a. Jan nie lubi Marii.
       Jan: NOM NEG likes Maria: GEN
       ‘Jan doesn’t like Maria.’

    b. *Jan lubi nie Marii. 8

(16) NEG-Verb Order
    a. Nie mam samochodu.
       NEG I-have car: GEN
       ‘I don’t have a car.’

    b. *Mam nie samochodu. [Śpiewak & Szymańska 1995]

To be sure, in the (a) sentences in (15-16), it is possible that NEG procliticizes on the verb and, thus, may move together with V to I. The fact that this movement applies only optionally, as shown in (14a), will be taken as evidence against NEG-procliticization plus subsequent V-Movement. Thus, in cases of the incorporated past tense as in (14b), I do not assume that the verb appears attached to the P-N marker in the higher AUX position

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8 As noted by Śpiewak & Szymańska (1995), the word order in (15b) is possible under constituent negation, in which case the direct object would be marked ACC (Maria), rather than GEN in the intended sense of sentential negation.
(T). This higher AUX position is reserved for detached P-N markers (and, perhaps, as we will see, the conditional clitic by).

Let us now turn to the basic facts of negation as they apply to the two AUX positions. As we see in (17-19), non-clitic auxiliaries follow the NEG particle, while detached clitic auxiliaries precede it:

(17) Non-Clitic AUX and Negation
   a. Janek nie będzie czytał tej książki.
      Janek:NOM NEG AUX:FUT read this book:GEN
      ‘Janek will not read this book.’
   b. *Janek będzie nie czytał tej książki.

(18) Clitic AUX and Negation: P-N Markers
   a. My-śmy nie czytali tej książki.
      we:NOM AUX:1.PL NEG read this book:GEN
      ‘We didn’t read this book.’ [Borsley & Rivero 1994]
   b. *My nie-śmy czytali tej książki.\(^9\)

(19) Clitic AUX and Negation: Conditional by
   a. Janek by nie czytał tej książki.
      Janek:NOM CONDNEG read this book:GEN
      ‘Janek would not read this book.’
   b. *Janek nie by czytał tej książki.

Assuming that something like the AUX HYPOTHESIS for /-no/-to/ is correct, and that the facts in (17-19) indicate two positions for auxiliaries in Polish, as indicated in (13), the question is which of these two positions does /-no/-to/ occupy. Recall that much is being made of the complementary distribution of /-no/-to/ and the non-clitic auxiliaries. This would seem to implicate the lower AUX position. Nothing can be said about the cooccurrence of /-no/-to/ and the P-N markers in the higher AUX position since the 3.PL marker is phonologically null. However, /-no/-to/ does cooccur with conditional by,

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\(^9\)To be sure, (18b) may be ruled out on independent phonological grounds, namely, the inability of a proclitic in Polish to cliticize on an enclitic. I thank Abby Konopasky (personal communication) for this observation.
which I take to be in the same position as the P-N markers, following Borsley & Rivero 1994.\textsuperscript{10} Note, for example, the conditionals in (20):

(20) -no/-to + Conditional *by*

a. *Zrobiono by to już dawno, gdyby nic się nie done:*-NO COND this:*ACC already long-ago if nothing REFL NEG stało.

happened

‘They would have done this a long time ago if nothing had happened.’

[adapted from Borsley 1999:43 (attributed to Adam Przepiórkowski)]

b. *Już by kupiono samochód, gdyby nie było innych rzeczy already COND bought:*-NO car:*ACC if NEG was other things:*GEN do zrobienia.

for doing

‘They would have already bought the car if there weren’t other things to do.’

These examples rule out the higher AUX position for /-no/-to/. I will assume that /-no/-to/ is thus generated in the lower AUX position, consistent with its complementary distribution with the non-clitic auxiliaries. The final structure for Polish -no/-to is given in (21):

(21) -no/-to: Structure

\[\begin{tikzpicture}
  \node {TP} child {node {T'}} child {node {NegP} child {node {Neg} child {node {AuxP} child {node {-no/-to} child {node {vP} child {node {pro-arb} child {node {v'}}}}} child {node {VP} child {node {NP:Acc}}}}}};
\end{tikzpicture}\]

\textsuperscript{10} Alternatively, the P-N markers and conditional *by* could occupy two distinct positions in the Tense-Mood system dominating NEG, as suggested by Jan Fellerer. In this case, /-no/-to/ could be argued to cooccur with the position headed by P-N markers as well. This would involve a covert P-N form for the 3\textsuperscript{PL}, which might have to be assumed in either case given the obligatory 3\textsuperscript{PL} reading of the pro-arb subject in -no/-to.
The difference between an AuxP headed by /-no/-to/ and one headed by a non-clitic auxiliary, such as ędzie (as in (17a)) is that the former is affixal and thus cannot be stranded (by a phonological constraint). So while this structure accounts for the properties of -no/-to given in (12), it creates the new problem of getting the affix and verb-stem together (indicated by the dotted line). This problem will be taken up shortly in Section 4.

It is interesting to note, before proceeding, that the discussion of Polish auxiliary clitics (the P-N markers) is generally concerned with the diachronic change that reanalyzes original present tense auxiliaries as modern day affixes; that is, the idea noted in Anderson 1987 that new morphology comes from old syntax. With Polish -no/-to we are essentially faced with the opposite problem. Here, an original word-final affix is interpreted as an auxiliary. That is, I am proposing that material that has always been attached historically has covertly occupied a detached position in the syntax for the last several centuries. The difference in derivational history between P-N markers and /-no/-to/ is illustrated in (22a-b):

(22) a. Reanalysis of P-N Markers b. Reanalysis of /-no/-to/

In (22a) there is diachronic movement from a higher AUX position to a new site of pronunciation, while in (22b) there is movement from the site of pronunciation to a higher (though different) AUX position. This is stated in purely descriptive terms. I do not propose syntactic movement for (22b); that is, I do not propose that (22b) is the result of some sort of covert excorporation. In fact, in what follows, I will argue that this movement is not strictly syntactic. Under the assumption that stranded affixes constitute a

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11 According to Oesterreicher 1926 and Klemensiewicz et al. 1965, the process of -no/-to formation was completed as recently as the 17th century.
PF-violation (following Lasnik 1981, 1999), I will propose that /-no/-to/ and V- “get together” postsyntactically, in a morphological/phonological component of the grammar.

4. Morphological Merger

To recall, I am proposing that /-no/-to/ introduces a mismatch between syntactic and morphological structure. The /-no/-to/ morpheme enters the syntactic structure as an autonomous entity in the head of the lower AUX projection, but is pronounced together with the verb stem. This mismatch is schematized in (23):

(23) a. Syntax
   \[ \text{AuxP} \text{Aux} \text{-no/-to} \text{[VP pro-arb \[v V- v \]} \text{[VP \[v \text{t} \text{v NP \}]]]} \]

   b. Morphology
   \[ \text{AuxP} \text{Aux} \text{[VP pro-arb \[v \text{-no/-to} \]} \text{[VP \[v \text{t} \text{v NP \}]]]} \]

   It is crucial to bear in mind that /-no/-to/ is selected from the lexicon with the feature of being an affix. I assume that being an affix is a morphophonological notion, like being a clitic. Heads pick up affixes in the following ways, given in (24):

(24) Affixation
   a. pre-syntactic morpholexical operation
   b. complex head formation in the syntax
   c. adjacency

   Let us briefly consider each option in (24). The formation of /-no/-to/ predicates in the lexicon, as in (24a), would require the subsequent covert excorporation of /-no/-to/ in order to maintain the explanatory force of the AUX HYPOTHESIS. Syntactic movement of subparts of zero-level categories requires an addition to the general principles of movement. Proposing such a mechanism just for this purpose would therefore be stipulative and non-explanatory. Complex head formation, as in (24b), would require that the verb-stem move and adjoin to the lower AUX position. To be sure, this type of “Short Verb Movement” appears to be possible at first glance: such movement would bring the verb-stem and affix together while still allowing the complex head to be pronounced after NEG. The question for such a syntactic approach is one of motivation. For this movement to be truly syntactic, it would have to be motivated by an insufficiency of the target
(Attract), that is, /-no/-to/’s need to combine with its verbal host. However, as Lasnik (1999) notes, the property of being an affix is not a syntactic feature, but rather a phonological one, and, thus, should not drive movement in the syntax.

We now turn to the third possibility for affixation of /-no/-to/, given in (24c). Adjacency is required for operations that apply to the mapping from syntax to the Phonological Component. Following recent work in Distributed Morphology (Halle & Marantz 1993, Embick 1995), I will propose that only the morphosyntactic features of /-no/-to/ are generated in the lower AUX head with no phonetic content, while the mapping to PF merges /-no/-to/ and V- (Late Insertion). That is, the lower AUX does not actually dominate any phonological material. According to separationist theories of Morphology, the morpheme enters the narrow-syntactic derivation without needlessly carrying along its phonological representation (see also Jackendoff 1997, ch. 4). The analysis to follow builds on the fact while PF sees an affix, the syntax just sees a head--a legitimate syntactic object. This is what lies behind the syntax/morphology mismatch in (23).

The leading idea of this approach is that the Phonological Component is the ultimate arbiter for the establishment of linear order. The operation that brings affixal /-no/-to/ together with the verb stem under strict adjacency is a particular instance of Morphological Merger (Marantz 1988), whereby a syntactic relation between two heads is replaced in PF by an affixation relation. Morphological Merger is defined in (25) and schematized in (26):

(25) Morphological Merger (Marantz 1988)
At any level of syntactic analysis..., a relation between the heads X and Y may be replaced by the affixation of X to Y [as long as X is listed in the lexicon as an affix].

(26) Morphological Merger
[X... [Y... ] --> [Y + X]

Harley & Noyer (1999) refer to those cases of Merger that involve string-adjacency as “Local Dislocation.”

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This is what gives us (23b) from (23a) without recourse to poorly motivated syntactic movement. Note that operations at PF have also been proposed to account for English *do*-support (Lasnik 1981, 1999, Bobaljik 1994), the English possessive ‘s clitic (Marantz 1988), Germanic V-Movement in Object Shift constructions (Bobaljik 1994), and West and South Slavic cases of apparent Long Head Movement (Embick & Izvorski 1997, Konopasky 2000). What all these phenomena have in common with Polish -no/-to is an adjacency requirement. That is, lexical items can only merge if they are adjacent with respect to what PF can see. If /-no/-to/ were generated in the higher AUX position (T), then NEG would intervene (along the lines of *do*-support) and disrupt the necessary adjacency relation between the affix and its verbal host.

5. Conclusion

The main empirical proposal of this paper is that Polish /-no/-to/ is interpreted in the modern language as the head of a functional projection. The first piece of evidence for this proposal is the complementary distribution of /-no/-to/ and anything else heading the lower AUX projection. The AUX HYPOTHESIS for Polish /-no/-to/ predicts the other seemingly unrelated properties of this construction. The main theoretical idea of this paper is that the Phonological Component is the arbiter of syntax/morphology mismatches. Assuming that stranded affixes constitute a PF-, rather than a strictly syntactic, violation, it is shown that /-no/-to/ and the verb-stem are joined under affixation in the Phonological Component, where processes such as English *do*-support are believed to take place. The theory presented for /-no/-to/ relies on the idea that morphemes can provide one set of instructions for narrow syntax and another, unrelated, set of instructions for their phonological realization. I have attempted to show that some such separationist theory of Morphology is necessary.

13 On Morphological Merger elsewhere in Polish, see Embick 1995 and Bański 2000 on the attachment of P-N markers to XPs (i.e., as opposed to P-N + V^*) and the cliticization of the conditional auxiliary *by*. Non-lexical attachment is proposed for those cases in which certain processes of lexical phonology (such as /o/-raising and penultimate stress assignment) are circumvented.
References:


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