*Polish auxiliary clitics: morphology or syntax?**

Piotr Bański
University of Warsaw
bansp@pleam.edu.pl

1. *Introduction*
In this paper, I will be concerned with two classes of Polish auxiliary clitics, exemplified under (1) below.

(1)

Singular	Plural	
-(e)m	-(e)śmy [śmi]	1st person
-(e)ś	-(e)ście [śće][1]	2nd person
'class A'	' class B '	

Booij and Rubach (1987) (henceforth B&R) observe that the singular and plural clitics form two classes, differing in their involvement into certain processes. Adopting this division, I will refer to the singular clitics as 'class A' and to the plural ones as 'class B'.
B&R account for the behaviour of these clitics in terms of the theory of Lexical Cliticization (their section 6.2.), briefly summarized below.

(2) *Lexical Cliticization* (paraphrased):
Auxiliary clitics are attached to their hosts in the Lexicon by morphological rules, freely, and only then are the host+clitic complexes inserted into the syntactic structure. Possible multiple occurances of clitics are then ruled out by a syntactic filter leaving only one instance of the clitic.

The theory of Lexical Cliticization (LC) is based on two insights: (i) that clitics are movable within a sentence (Polish is not clitic-second), and (ii) that they interact with word phonology processes.
In the present paper, I will suggest an analysis which will attempt to preserve these two insights, at the same time assuming that both classes of clitics are syntactic heads and that their involvement into word phonology processes can be accounted for by means of the theory of Distributed Morphology proposed by Halle & Marantz (1993) (henceforth H&M).

The paper is structured as follows. Section 2 presents the data exemplifying the involvement of clitics in lexical phonology processes. The examples adduced come mostly from B&R. I will make two additional claims there: (i) that considering a broader range of data forces another division, cutting across the two classes of clitics, and having to do with the morphological (verbal vs. non-verbal hosts) or, alternatively, structural (Head-Head vs. Spec-Head configuration) contexts for clitic attachment (section 2.1.), and (ii) that Lexical Cliticization as defined by B&R incorrectly predicts certain ill-formed structures to occur (sections 2.2. and 2.3.).
Section 3 offers a different analysis, treating clitics as syntactic objects and suggesting that their behaviour with regard to certain morphological processes may be a function of Morphological Structure in the sense of H&M.
Section 4 summarizes the results.

2. *The data*
2.1. Stress assignment
In Polish, stress falls regularly on the penultimate syllable. The examples in (3) below show that when a class A clitic is attached to a stem, the stress shifts to conform with the penultimate pattern (stressed vowels are marked by bold type).

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[1] I use [ś] and [ć] for a prepalatal fricative and affricate, respectively.

(3)

	Participle, 3rd, Masc		Participle, 3rd, Masc + CL_A	
(a)	robił	-	robił+em	'do'
(b)	odpowiedział	-	odpowiedział+em	'reply'

B&R note the fact that with class B clitics, two patterns of stress are possible; the cultivated forms have antepenultimate stress, whereas in the spoken language, forms stressed on the penult appear frequently:

(4)

robiliśmy - robiliśmy 'we did'
poszliśmy - poszliśmy 'we went'

If a broader range of host+clitic combinations is taken into consideration, however, it becomes clear that this optionality does not hold for all structures involving class B clitics. In the examples in (5) below, only the antepenultimate stress is possible:

(5)

(a)	zmęczeniśmy	- * zmęczeniśmy	'we are tired'
(b)	czegoście (nie zrobili)	- * czegoście	'what (haven't you-pl done)'
(c)	Jankaście (widzieli)	- * Jankaście	'(you-pl saw) John'
(d)	długoście (tam byli)	- * długoście	'(you-pl were there) long'

All the above structures have something in common: the hosts are phrases: predicative in (a), wh-object in (b), fronted object in (c), and an adjunct in (d). Therefore, it seems that the mode of adjunction determines the properties of the complex resulting from it. This is made more explicit in (6) below.[2]

(6)

(a)	robiliśmy, robiliśmy	- $[[_V$ robili $]$ $[_{Aux}$ śmy$]]_{head}$	- head-head adjunction (X-CL)
(b)	Jankaście, * Jankaście	- $[[_{DP}$ Janka$]$ $[_{Aux}$ ście$]_{head}$ $]$	- phrase-head adjunction (XP-CL)

It seems that the adjunction structures in (5) above are 'weaker' in the sense that they do not behave as units with regard to certain processes; I will assume that the process involved is phonological word formation. There are two ways to characterize the 'exceptional' constructions in (5): either to say that they are structures involving a specifier- or adjunct-head (as opposed to head-head) relation between the host and the clitic, or to say that we are dealing with non-verbal vs. verbal hosts here. Although the latter seems tempting, possibly showing effects of categorial selectivity of clitics changing, I will explore the possibility where it is the structurally defined proximity to the host which is at stake.

2.2. *e* - insertion

All four clitics have two variants, differing in the presence of an [e]. The examples are given in (7) below.

(7)(a)

root 'bake'	past	gender	+CL
piek	ł	a (feminine)	m/ś
piek	ł	∅ (masculine)	em/eś
piek	ł	y (non-virile)	śmy/ście
piek	l	i (virile)	śmy/ście

(b) już+em/eś/eśmy/eście
already+CL

What (7a) is intended to show is that for participle hosts, the [e] is supplied if the stem is masculine singular only (the first three morphemes make up the past participle form of the verb, and the fourth is what surfaces if a clitic is attached). There is a class of words which also trigger the appearance of the [e] for all clitics (7b).

[2] It is impossible to construct similar examples for class A clitics, because phrase-head adjunction (XP-CL) generally blocks the insertion of [e], which would provide an additional syllable, which could be then used as a test for whether the stress shifts of not (cf. section 2.2). The only possible examples involve monosyllabic words like *tam* 'there'. However, the fact that *tam+em* is stressed on the penult follows in either case.

2.2.1. *e*-insertion as the output of Lower

B&R attribute the surfacing of [e] to the operation of the cyclic rule of Lower, which turns yers (high lax vowels) into /e/, if another yer follows. Lower is responsible for the following alternations:

(8)

	Nominative		Genitive	
(a)	mech	-	mch+u	'moss'
(b)	kot+ek	-	kot+k+a	'kitten'
	cat+dimin			

(bold type marks the output of Lower)

Under the assumption that the stem in (a) and the diminutive suffix in (b) contain yers, surfacing of [e] in the left-hand examples is caused by a yer in the following morpheme: the Nominative ending (cf. B&R:fn. 9). Lower applies every cycle if the context is met, then a post-cyclic lexical rule of Yer Deletion applies to delete all remaining yers context-freely.[3]

B&R show that the masculine singular ending is a yer (cf. their section 2.1.), and under the assumption that auxiliary clitics also contain yers, they derive the presence of the [e], interpreting it as the masculine yer lowered before the yer in the clitic, cf. (9) below.

(9)

(a) robił+ĭ + CL_A --> robił+e+mĭ or robił+e+śĭ (the yer then deletes)

Because Lower is fed by cliticization, and because it is a cyclic lexical rule, B&R conclude that cliticization must be a morphological process.

2.2.2. Overgeneration of LC

Consider the examples in (10) below. The right-hand, accusative forms surface with an [e].

(10)

	Gen.	Acc.	
(a)	palc+a	palec	'finger'
(b)	zamk+u	zamek	'castle'
(c)	marchw+i	marchew	'carrot'

∅ vs. [e]

In accordance with the theory assumed in B&R, the ending of the accusative forms is a yer, because it triggers the appearance of [e] in the stem. Thus, B&R's theory predicts that the accusative yer will be lowered to [e] if a clitic is attached. This prediction is not borne out, as evidenced in (11) below.

(11)

(a)	* palec+e+ś złamał	'you (sg) broke your finger'
(b)	* zamek+e+śmy widzieli	'we saw a castle'
(c)	* marchew+e+ście jedli	'you (pl) ate carrots'

I conclude that Lexical Cliticization overgenerates. Nothing should prevent the appearance of [e] in the above forms, according to B&R's assumptions.

2.3. Raising

Raising is another (postcyclic) lexical rule interacting with cliticization. It turns /o/ into /u/ before voiced consonants in the word-final syllable. It is responsible for the following alternations:[4]

(12)

(a)	bóg [buk] 'god', Nom.	-	boga [boga], Gen.
(b)	rób [rup] 'do', Imperative	-	robić [robić], Infinitive

As shown in (13), Raising is blocked if a clitic is attached. Because cliticization blocks operation of a lexical rule, B&R again conclude that it must be a word formation rule.

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[3] The present-day theory does not make use of yers as underlying segments, to avoid the danger of absolute neutralization - yers do not surface in any case. Instead, floating vowels are typically postulated to account for the vowel-zero alternations. I believe that the points I make in this paper translate into the newer framework easily.

[4] The final segments in the left-hand forms are underlyingly voiced. The postlexical rule of Final Devoicing is responsible for their surface shape, cf. B&R:25.

(13) ja+m mógł - ja mogł+em 'I could'
[u] [o]

It is impossible to construct similar examples for class B clitics in X+CL constructions - recall that plural verb stems always end in a vocalic gender marker, whose appearance prevents Raising from applying.
B&R do not, however, consider XP+CL constructions, where, as shown in (14b) below, Raising does not apply either (14a shows that Raising does apply for *rów* if an inflectional ending is attached).

(14)
(a) rów - row+u 'ditch'
Nom. Gen.

(b) *row+ś/ście

Hence, (14b) is another argument against Lexical Cliticization as formulated by B&R.

2.4. Indefinite pronoun formation
Booij & Rubach cite Dogil's (1984) examples for the interaction between cliticization and the rule of Indefinite Pronoun Formation which attaches [ś] to interrogative pronouns, as shown in (15) below.
(15)
(a) jako 'how' - jakoś 'somehow'
(b) kiedy 'when' - kiedyś 'sometime'

According to Dogil, alternations such as those in (16) below are possible:
(16)
(a) jako+ś mu po+mog+ł+e+**m** = jako+**m**+ś mu pomógł 'I helped him somehow'
(b) kiedy+ś to kup+i+ł+e+**m** = kiedy+**m**+ś to kup+i+ł 'I bought it sometime'

In (16), the *-m* clitic, marked by bold type, must attach before the indefinite [ś] in the sentences on the right. Because the attachment of [ś] is a derivational process, Dogil's observations, in dialects where they apply, constitute a very strong argument for the morphological status of cliticization.

2.5. Clitic multiplication
Booij & Rubach note the fact that in uneducated speech, clitics may be multiplied.[5] They cite the examples given in (17) below, after Dogil (1984).
(17)
(a) ale+ś powiedział+e+ś 'but you (sg) said'
but+CL_A said+CL_A
(b) ale+ście zrobili+ście 'but you (pl) did'
but+CL_B did+CL_B

B&R attribute the appearance of the above constructions to the failure of their syntactic filter to apply (cf. (2) above).

3. *The analysis*
The analysis offered in this section presupposes the model of Distributed Morphology (DM) proposed by Halle & Marantz (1993). DM crucially claims that phonological features are supplied to terminal nodes only at the level of Morphological Structure (MS), mediating between syntax proper and PF. MS has its own set of principles and operations which target bundles of semantic and morphosyntactic features contained under one categorial terminal node. The features are drawn from the lexicon or supplied in the course of derivation by e.g. head-to-head movement. MS may rearrange these bundles to certain extent, merging, fusing or fissioning them, before the process of supplying phonological features known as Vocabulary Insertion (VI) begins. After VI, morphologically conditioned readjustment rules may operate on the structures derived.
DM immediately offers a way to reformulate the account for Indefinite Pronoun Formation, mentioned in 2.4. Apparently, the indefinite *-ś* triggers an MS rule which swaps it with the neighbouring

[5] I use the term 'multiplication' to stress that this process has nothing in common with clitic doubling in Romance languages.

inflectional morpheme and positions it at the right edge of the head to be spelled out. The additional evidence for this conclusion comes from (18) below, where it is apparent that [ś] jumps over the inflectional ending.

(18)	Masculine	Feminine	Virile		Non-virile
Nom.	jaki+ś	jaka+ś	jacy+ś		jakie+ś
Gen.	jakiego+ś	jakiej+ś		jakich+ś	
Dat.	jakiemu+ś	jakiej+ś		jakim+ś	

'what (kind of)' +inflection+[ś] -> 'some (kind of)'

Thus, it is possible to account for the phenomenon presented in (16) above even if cliticization is not a word formation rule.

The model suggested by Halle & Marantz is at first glance incompatible with that advocated by Booij & Rubach. One way of reconciling these two frameworks may be to assume that lexical rules apply only inside a relevant domain, which in the case of Polish (perhaps universally) is the domain of the phonological word (Pwd). The post-lexical rules, then, will operate inside larger domains.
As for the difference between cyclic and postcyclic rules, it may be assumed that the former may be redefined as applying at each VI cycle, under the assumption that VI proceeds left to right. In this way, filling the next feature complex with phonological material could create environment for the application of cyclic rules. Postcyclic rules could then be redefined as applying after the last VI cycle for the given terminal node, to the whole material contained in it, after morpheme boundaries have been erased.
With cyclic rules redefined as above, it may be assumed that H&M's readjustment rules conditioned by the neighbouring morphemes may also be considered as cyclic.
To ensure the cyclicity effect, H&M's assumption about morphemes being identified as suffixes as prefixes only at the moment of VI should be slightly modified. Namely, it should be assumed that feature bundles are first ordered as suffixes or prefixes relatively to the stem and one another, and only then does VI begin, understood as filling the bundles, one by one, with phonological material.[6]

3.1. host+clitic complexes
Consider first head-to-head adjunction structures with class A clitics (X-CL_A). After the morphemes have been ordered, VI fills them one after the other, ending with CL_A, which triggers Lower, syllabification, and, later on, blocks Raising, in the relevant contexts. Stress Assignment operates on the whole complex as well.
In this way, class A clitics merge with their hosts into one phonological word, just like typical affixes, simply by virtue of being within the same terminal node as the host.
As for X-CL_B constructions, I assume than class B clitics trigger a rule which adjoins them to the phonological word formed by the host.[7] This rule applies either at the stage of affix ordering, before VI, or as the first rule in the cycle for the clitic, pulling it out from the Pwd of the host. The resulting (possibly pre-VI) configurations are illustrated in (19) below.

[6] This means that MS operations, apart from performing language- and context- specific merger, fusion or fission may also perform language- and context-specific pre-VI ordering of morphemes. In this way H&M's assumption that the syntactic computation does not operate on phonological (in broad sense) features may be preserved. See however Ćavar & Wilder (1994) who make crucial use of *lexical* specification of clitics as elements *phonologically* deficient, following Zec & Inkelas (1990), and Chomsky (1996) who allows for the existence of features which may only function within the phonological component without being spelled out phonetically, but still be visible to the computation.

[7] The assumption about recursive adjunction to a Pwd avoids the assignment of clitics to separate phonological words of their own, which could pose problems connected with stress assignment to such Pwds. However, another problem arises of how to avoid stress assignment to recursive Pwds formed after the adjunction. At least three possible solutions come to mind: (i) to assume that stress is assigned to a foot, and clitics do not project feet, or (ii) to assume that the adjunction process does not form another Pwd but rather a clitic group (CG), which is not a domain for stress assignment (although the very existence of CGs is currently a debatable matter), or (iii) to assume the following rule: one (recursive) Pwd may only bear one primary stress. Because the present analysis only requires that in X-CL_B constructions with adjunction clitics be separated from the Pwd of the host, I will not attempt to explore the above possibilities now, assuming the third one to hold.

(19)
(a) X-CL_A: [host + CL]$_{Pwd}$
(b) X-CL_B: [[host]$_{Pwd}$ + CL]$_{Pwd}$ (cultivated forms)

I assume that in X-CL_B constructions with penultimate stress, clitics do not trigger the adjunction rule, taking it to be a reflex of their progressing grammaticalization.
In XP-CL constructions, under the above assumptions, VI targets the XP and the CL separately, so the question of their merging into one Pwd does not arise.[8] Still, both elements form a unit of the type illustrated in (19b) above, as a result of the fact that the CL subcategorises for a Pwd to its left, cf. (20) below.[9]
(20) XP-CL: [[host]$_{Pwd}$ + CL]$_{Pwd}$

The assumption that class A clitics do not merge with their hosts in XP-CL constructions is empirically motivated on the basis of examples like **marchew+m* ('carrot'+CL_A, cf. (11) above), where *e*-insertion, understood as Lower, does not apply. There is also a range of other facts that may support this conclusion. These facts have to do with the phenomenon of conjunction reduction. The examples below illustrate forward deletion of an inflectional ending (21) and clitics (22-25) under identity. I will assume that the minimal requirement for deletion is that the target be a distinct entity.[10]
(21) shows that it is impossible to delete the inflectional morpheme. In (22), however, class B clitics undergo deletion. (23) shows that this process is impossible for class A clitics. These facts follow straightforwardly from the assumption that in X-CL_A constructions, the clitic is indistinguishable from other morphemes constituting the host, unlike clitics in X-CL_B constructions, where the clitic is a separate entity adjoined to the host. (24) lends further support for this conclusion: in (a), the class A clitic may not be deleted; (b) is almost good, the slight deviation presumably due to the variable status of class B clitics; (c) is perfect - the modal clitic *by* always stays outside of the phonological word of the host.
If the above reasoning is assumed, (25) falls out straightforwardly as a construction shown in (20) above, where the class A clitic is not merged with the host, but adjoined to it.[11]
(21)
(a) bierzesz i dajesz 'you (sg) take and give'
(b) *bierzesz i ~~dajesz~~

(22)
(a) poszliśmy i zobaczyliśmy 'we went and saw'
(b) poszliśmy i zobaczyliśmy
(c) poszliście i zobaczyliście 'you (pl) went and saw'
(d) poszliście i zobaczyliście

[8] In languages in which it is required that XP-CL constructions form single Pwds (i.e., in which CL must undergo or trigger cyclic rules), it may be assumed that some kind of MS rule applies to join the XP and the CL. H&M do not discuss the question of how phonological words may be formed within their system. I assume that a rule similar to the one they postulate for structurally or linearly adjacent heads (merger, H&M:116) may be involved in such cases. Naturally, all sorts of questions arise as to how such rules may be constrained and how they operate if the XP consists of several terminal elements. I am not in a position to address these questions now.
[9] Thus, I assume that (some) clitics carry at least two kinds of specification: (i) subcategorization information identifying them as elements requiring a host (cf. Ćavar & Wilder 1994 following Zec & Inkelas 1990), and (ii) a feature triggering the adjunction rule. The latter feature represents the cost at which the cultivated forms are generated as compared to the novel forms (cf. B&R:41). At the same time, this feature seems to be shared by all other clitics of Polish, whether it is the modal *by* or the pronominal clitics. It is the first feature which is responsible for creating the structure in (20).
[10] See Wilder (1994) for extensive discussion of these issues.
[11] A warning about the data is in order here. Some of these judgements are not uniformly shared among speakers of Polish. Determining the extent to which the above facts are common and the explanation of the differences in judgements will be the subject of a future work. One interesting obsevation made so far was that an informant who rejected (22), uniformly stressed X-CL_B constructions on the penultimate syllable, which may suggest that in her idiolect, class B clitics lacked the adjunction rule altogether and that was the reason for her not being able to delete the clitics in (22). I am not aware of anyone disagreeing with the judgement in (24c), which seems a clear case, the varying judgements about auxiliary clitics being presumably caused by their transitional status.

(23)
(a) poszedłem i zobaczyłem 'I went and saw'
(b) * poszedłem i zobaczyłem
(c) poszedłeś i zobaczyłeś 'you (sg) went and saw'
(d) * poszedłeś i zobaczyłeś

(24)
(a) * włączyłem sobie radio i posłuchałem muzyki
(b) ? włączyliśmy sobie radio i posłuchaliśmy muzyki
(c) włączyłbym sobie radio i posłuchałbym muzyki
turn-on+CL self-Dat radio and listen-to+CL music

(25)
(a) ?zmęczonym i głodnym 'I'm tired and hungry'
(b) zmęczonym i głodnym

3.2. Lexicalized forms
There is one class of XP+CL structures not discussed yet, namely those like *jużem*, *tameście*, etc. Because there is a very small number of words in Polish which allow *e*-insertion in such configurations (see (26) below for a possibly exhaustive list), and because most of them have an archaic flavour in such constructions, I suggest that this class of structures involves lexicalization. As single-word adverbial expressions, closed class elements, these constructions might simply become stored as units, thus forming tight complexes. It is worth noting that if these words are followed by a clitic, resylabification applies.
(26)
tam 'there', już 'already', jak 'how', sam 'alone', gdzież 'where', nim 'before', cóż 'what'

There is one surprising fact about the complexes resulting from combining these words with class B clitics, namely that they do not have penultimate stress. As shown below, these complexes are stressed on the antepenult.
(27) tam+e+śmy, już+e+ście

The above examples reveal a paradox: because the [e] surfaces, it should be assumed that it is triggered by the yer inside the clitic. For this to be true, the clitic must be inside the domain of cyclic rules, a Pwd. But if so, then the post-cyclic rule of stress assignment should not ignore the vowel inside the clitic and stress the penultimate [e], and not the antepenultimate syllable.
One possible way to account for this phenomenon may be to assume that the lexicalization of these forms, besides placing the host and the clitic in the same domain, affected the clitic by postponing the application of the adjunction rule it triggers - if it applies as the last rule in the cycle, Lower will apply before it to create the [e]. Then, the postponed adjunction rule will make it possible for the clitic to escape from the domain of stress assignment.

3.3. The Friendliness constraint
Recall the ill-formed examples in (11) and (14b) above, where Lower or Raising fail to apply, repeated here as (28a,b). It turns out that these constructions are unacceptable even without the insertion of [e] or the [o] to [u] change, cf. (29a,b).
(28)
(a) * palec+e+ś, * zamek+e+śmy, * marchew+e+ście
(b) * row+ś, * row+ście

(29)
(a) * palec+ś, * zamek+śmy, * marchew+ście
(b) * rów+ś, * rów+ście

The above examples show the need for a condition on cliticization having to do with the phonetic make-up of the host:

(30) *Clitic-friendliness*:
To become a clitic host, an element has to be phonetically 'friendly', which ideally means that it has to end in a vowel, other types of segments being possible depending on the speaker

Friendliness of the host required to allow cliticization apparently varies slightly from speaker to speaker; the examples in (31) below present my own judgements, the final segment of the host given in square brackets.

(31) Acc.+CL
(a) Janka+ście 'John', [a]
(b) ?książkę+ście 'book', [w̃]
(c) *dom+ście 'house', [m]

In X+CL constructions, no violations of Friendliness arise: class B, as well as class A feminine clitics always end in a vocalic gender marker, and class A masculine clitics, being inside the relevant domain, always trigger Lower, resulting in the epenthesis of [e].
It is tempting to reduce Friendliness to some independent principle, and obviously, the conditions on syllable structure immediately come to mind here. In the case of class A clitics, Friendliness possibly does reduce to phonotactic constraints on the syllable structure, as these clitics have to be adjoined to the coda of the last syllable of the host. It is less clear that such a reduction is possible for class B clitics, given that they form syllables on their own, and there is no resyllabification after cliticization in XP-CL structures. Polish allows [ść] and [śm] or even larger sequences as onsets (e.g. *wściekły* 'furious' [fść-]). Therefore, I retain Friendliness as a separate condition, pending further research.
To save structures in which Friendliness blocks cliticization, an element homophonous with the finite declarative complementizer *że* may be inserted between the host and the clitic, to serve as the host. Results of this *że*-insertion are shown in (32) below (cf. the examples in (29)).

(32)
(a) palec że+ś, zamek że+śmy, marchew że+ście
(b) rów że+ś, rów że+ście

I return to this phenomenon in section 3.4.2.

3.4. Clitics as syntactic heads

In this section, I will first defend the idea that clitics should be analysed as syntactic elements, possibly originating under V_{aux}, taking VP_{prt} as the complement, and then undergoing a regular feature-checking movement to Infl.[12,13] From Infl, they may, but do not have to, climb higher - this optionality, whether true or apparent, is intended as a means of accounting for the lack of Wackernagel effects in Polish - clitics may appear deeper in the clause than the second position. From any of the head positions, these heads may cliticize on an element within the same maximal projection, capable of supporting them, either a head or a Spec. If such an element is lacking or it is impossible to cliticize onto it (Friendliness), Last Resort verb movement or *że*-insertion may be performed. If these fail as well, the derivation crashes at PF, because the phonological subcategorization properties of the clitic are not fulfilled - this, in turn, is a means of accounting for the Tobler-Mussafia effect of Polish - the fact that clitics may not appear in string-initial positions.[14] Section 3.4.1. shows how the above assumptions may account for certain facts better than the filter postulated by B&R. Section 3.4.2. offers some remarks on the status of *że*-insertion.

3.4.1. Inadequacy of the filter

The syntactic filter proposed by B&R (p. 36) is supposed to rule out structures in (33) below.

(33) * ... X+clitic$_i$ ... Y+clitic$_i$ ...

B&R do not discuss the kind of identity expressed by the index. I will assume that it stands for identical number-person features - this seems the only reasonable interpretation, under B&R's assumptions. Because auxiliary clitics do not climb out of their clauses, the additional condition the filter has to obey is that it may only target one clause at a time.
If cliticization is lexical, it may well happen that different clitics attach to different words in the same clause - the filter suggested by B&R will leave one instance of each. Notice that if clitic multiplication is interpreted as a violation of a syntactic filter, and host+clitic combinations arise in the Lexicon,

[12] See Wilder & Ćavar (1994) for extensive discussion of possible motivations for such movement of clitics.
[13] I do not commit myself to any particular syntactic framowork here, remaining within some version of the Minimalist Program. Hence, at this stage, for ease of exposition, I will use more traditional terminology.
[14] Again, see Ćavar & Wilder (1994) for the discussion of how these two properties may be accounted for in Croatian.

structures such as those in (34) below should at worst have status similar to those in (17) above, if not simply be well-formed because they do not violate the filter at all.

(34)
* już+e+m to widzieli+śmy
already+CL_A it see-Prt+CL_B
intended: 'we have already seen it'

The above violation cannot be a feature-checking violation, because adjuncts like 'already' are not supposed to check phi-features against anything. Semantic interpretation should not rule this example out either in view of sentences like *There's lots of people outside*, where the singular clitic *'s* does not agree with the plural NP *lots of people*. If, on the other hand, clitics are generated as heads of, V_{Aux}, it is predicted that only one clitic may occur in one clause.
Therefore, paradoxically, violations like those in (17) above, in dialects where they occur, seem to support an analysis where the clitic is generated in one position, and subsequently moved, possibly by head-to-head climbing, to another position. Clitic multiplication, in dialects where it exists, may be explained if the copy-and-deletion view on movement is adopted (cf. e.g. Chomsky 1993), by a failure of the PF (trace-) deletion rule to apply.

Although apparently optional, cliticization in Polish obeys a certain pattern: while it is possible to have many elements in front of the clitic and between the clitic and the verb, orders like that in (35), where the clitic is attached to an element following the verb, are impossible.

(35)
* Wczoraj widzieli Janka+śmy
yesterday saw-prt John+CL_B
'Yesterday, we saw Janek'

Under B&R's approach, the ungrammaticality of (35) is a mystery. It follows immediately if it is assumed that the clitic is generated higher than the verb, and that when the latter raises, it may not skip the Aux head, but rather has to adjoin to it.

There are also cases where clitics have to obligatorily cliticize onto certain hosts. One of such hosts is the modal clitic *by* 'would', cf. (36). In certain subjunctive constructions, it appears that *by* has to be adjoined to the complementizer - any other placement is ungrammatical, although in non-subjunctive contexts it is possible, cf. (37).

(36)
(a) Janka byśmy znowu zobaczyli
Janek-Acc by+CL_B again see-prt
'We would meet Janek again'
(b) *Janka+śmy by znowu zobaczyli
(c) *Janka by znowu+śmy zobaczyli

(37)
(a) chciał, żebyśmy tam poszli
wanted-prt C+by+CL_B there go-prt
'He wanted us to go there'
(b) *chciał, że tam byśmy poszli
(c) powiedział, że tam byśmy poszli
said-prt C there by+CL_B go-prt
'He said we would go there'

The above ungrammatical examples come as a surprise within Lexical Cliticization. Under the syntactic view, they receive a natural explanation. On the assumption that the underlying order of heads is $CL_{A/B}$ - *by* - V_{prt}, (36c) follows immediately. (36b) necessitates an admittedly ad hoc, but by no means unreasonable assumption that *by* always has to raise to Infl, creating a complex with the auxiliary clitic. In subjunctive clauses, it is either the modal *by* or Infl that has to adjoin to Comp, possibly to check its strong Mood feature. (37b) crashes because this feature is left unchecked.

Another, very important, issue concerns the interpretation of clitics. If they are attached in the lexicon, how to ensure that they be interpreted as referring to the clausal tense and agreement properties? If the syntactic view is adopted, this question receives a straightforward answer - they are

generated as a part of the extended projection of the verb; with the lexical view, there is no clear answer to this.

3.4.2. *że* - insertion

Earlier on, I mentioned two possible Last Resort strategies of avoiding a crash due to unsatisfied phonological subcategorization properties of clitics: verb (participle) movement, creating the necessary host by adjoining to the left of the clitic, or *że*-insertion, which may be an MS phenomenon, spelling out a functional head which provides such a host. Consider now the examples below.

(38)

(a) powiedział, że tam poszliście
(b) żeście tam poszli
(c) że żeście tam poszli
said-prt that (że)+CL_B there gone-prt
'He said you had gone there'
(d) * powiedział, że że tam poszliście

(39)

(a) powiedział, że znowu żeście podpalili szkołę
said-prt that again że+CL set-fire-prt school
'He said you had set fire to the school again'
(b) powiedział, że znowu+ście podpalili szkołę

The first conclusion to be drawn from (38) and (39) is that *że* is not a complementizer, but apparently some head itermediate between Comp and Infl, either belonging to the complementizer system in the sense of e.g. Hoekstra (1993) - hence the homophony, or even being a stacked Comp. I will not argue for either of these possibilities here, leaving the matter for further reasearch.

Another conclusion is that *że*-insertion, a dialectal phenomenon, apparently constitutes 'accidental' Last Resort, meaning that the clitic may either climb higher and adjoin to Comp (38b), or cliticize onto an XP within its maximal projection (39b). Apparently, the clitic is too 'lazy' to perform either the movement to the next head or to cliticize onto the structurally remote XP. The insertion of *że* at MS is simply a cheaper option.

Recall that there are two possible ways to characterize the difference between the constructions in (6) above - either in structural or in morphological terms. It seems that if clitics were heading towards becoming 'verbal clitics', the phenomenon of *że*-insertion, apparently becoming more common in the spoken language, would not receive clear explanation - verb movement would be the expected option. If all that suffices is a presence of a head in the minimal domain, *że*-insertion is explained as the most economical way out.

4. *Conclusion*

In the present paper, I have attempted to argue that the answer to the question posed in the title is: both, provided that 'morphology' is not identified with 'lexicon'. This is by no means a new result. Booij & Rubach's theory also admitted that both components are involved in cliticization. What I have tried to show is that the balance should (still) be shifted towards the syntactic analysis, with morphology to certain extent remodelling the results of syntactic operations. Syntax governs the placement of the auxiliary clitics, whereas morphology governs the final shape of the host+clitic complexes.

According to B&R, auxiliary clitics have gone all the way from being independent syntactic elements - auxiliary verbs, cf. (40) below - to the lexicon.

(40) Old Polish Modern Polish

wyszedł jeśm	---->	wyszedł+em	' I went out'
go-out-prt be-aux		go-out-prt+CL	

(after Klemensiewicz et al. 1955)

I hope to have shown that this process is by no means completed yet. Auxiliary clitics still originate as separate syntactic heads. Their grammaticalization is reflected in their phonological deficiency: the requirement for a phonological host, as well as in their tendency to form tight complexes with hosts contained under the same terminal node: the progressive loss of the rule of adjunction to Pwd. The

phenomena described by Friendliness and *że*-insertion are presumably another aspect of progressing grammatialization - a tendency not to cliticize to hosts which are too distant in structural terms (Specs), unless the phonological context is in some sense ideal.
Class A clitics lead the way presumably due to the fact that on the surface, they consist of only a single consonantal segment which has to adjoin to the last syllable of the host, and most often such adjunction is impossible.

If the analysis presented above is correct, many interesting results concerning Morphological Structure ensue: it is (naturally) capable of expressing lexicalization of forms which consist of two syntactically remote elements (the case of *tameście*, etc.), grammaticalization may be expressed in terms of its rules (the gradual loss of the adjunction rule for class B clitics), and it may play a role in economy calculations (*że*-insertion). It seems possible to recast the three-component model of Lexical Phonology as proposed by B&R into DM terms, provided that it is assumed that affix ordering takes place before Vocabulary Insertion.

Another aspect of this analysis is that if B&R are not right in their claim that cliticization is lexical, certain models regarding clitic placement as a strictly prosodic phenomenon, cf. e.g. Halpern (1992), get into trouble when attempting to account for the non-clitic-second nature of Polish.

References:

Booij, G. & J. Rubach (1987). Postcyclic versus postlexical rules in lexical phonology. *LI* 18, 1-44.
Ćavar, D. & C. Wilder (1994). 'Clitic Third' in Croatian. *Linguistics in Potsdam* 1, 25-63.
Chomsky, N. (1993). A Minimalist Program for Linguistic Theory. In Hale, K. & S.J. Keyser (eds) *The view from Building 20: Essays in linguistics in honor of Sylvain Bromberger*. Cambridge, Mass.: MIT Press.
Chomsky, N. (1996). Some Observations on Economy in Generative Grammar. Ms., MIT.
Dogil, G. (1984). Lexical Phonology and Floating Inflection in Polish. In Dressler, W.U. et al. (eds) (1987) *Phonologica 1984*. London: CUP.
Halpern, A.L. (1992). *Topics in the Placement and Morphology of Clitics*. PhD Thesis, Stanford University.
Hoekstra, E. (1993). On the parametrization of functional projections in CP. *NELS* 23,1:191-204.
Klemensiewicz, Z., T. Lehr-Spławiński, and S. Urbańczyk (1955). *Gramatyka historyczna języka polskiego*. Warsaw: PWN.
Wilder, C. (1995). Some properties of ellipsis in coordination. Ms., Berlin.
Wilder, C. & D. Ćavar (1994). Word Order Variation, Verb Movement and Economy Principles. *Studia Linguistica*, 48 (1), 46-86.
Zec, D. & S. Inkelas (1990). Prosodically constrained syntax. In Inkelas, S. & D. Zec (eds) *The Phonology-Syntax connection*. Chicago, IL: University of Chicago Press.