POLISH PLACE-NAMES
AND WORD-FINAL CONSONANT GROUPS:
MORE AFFRICATES AND DIPHTHONGS IN POLISH?

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ABSTRACT

In this paper, an attempt is made at classifying word-final clusters occurring in Polish place-names from the viewpoint of syllabic structure within a strict CVCV model of Government Phonology. It is proposed here that the phonemic analysis of sounds should be truly abandoned. As a result, we can discover that segments behave according to the unchangeable syllabic structure: more than one segment can be attached to one skeletal position, the string of sounds in a word being preserved and the governing relations being contracted in line with the theoretical assumptions. Consequently, what we have in Polish is occasional diphthongs, affricates and complex segments which need not be recognized as distinctive phonemically.

KEYWORDS: Syllabification; place-name; affricate; diphthong; phoneme.

1. Introduction

The phonology of place-names, in whatever way this might be treated, seems to be an important part of the phonology of a given language. In Polish, as well as in tongues related to it, consonant clusters occurring at the end of such nouns may provide a decent handful of examples of not-necessarily-well-accounted-for phonological structures. Such consonant combinations are not always confined to place names, but these seem to form a self-contained set of words which may shed light on the remaining part of the language. Place names might obviously be viewed as a totally autonomous group of words and as one which will not contribute to the understanding of the phonological system of the whole Polish language. Here, however, it will be argued that structures present in place-names are helpful.

In many theoretical approaches, what follows a vowel or nucleus word-finally need not really matter because any constituent, in this case the coda, may include as many segments as possible. At least, restrictions are not severe. In Government Pho-
nology (Kaye, Lowenstamm and Vergnaud (KLV) 1990; Kaye 1990; Harris 1994), however, there are very strict predictions as regards the nature of syllable structure because, if a constituent branches (a coda is not a constituent here), it can contain no more than two positions. In particular, what follows a nucleus may be at most two or three consonants: either a coda plus a single onset or a coda followed by a branching onset. Any other structure is deemed illicit.

Also in the CVCV versions of Government Phonology (GP) originated by Lowenstamm (1996), developed by Scheer (1998), Rowicka (1999), Szigetvári (2000), Cyran (2003), Scheer (2004) and Jaskuła (2006), also partly advocated by Gussmann (2007), a configuration of a vowel followed by more than two/three consonants is considered to be a structural difficulty.

Here, we will take a look at word-final consonant combinations and their possible structural interpretations. Previous analyses of such clusters in both Polish and other languages, including Gussmann and Kaye (1993), Rubach (1997), Gussmann and Cyran (1998), Rowicka (1999), Bloch-Trojnar (2002), Cyran (2003), Gussmann (2007), Bloch-Rozmej (2008), Scheer (2009), are taken into consideration below.

2. Final consonant clusters in CVCV Government Phonology (GP)

In GP, all segments making up a phonological representation have to be licensed or governed. Nuclei normally receive licensing potential from the head of the domain – the nucleus bearing primary stress – and they pass this licensing to the preceding onsets. In other words, every onset has to be licensed by the following nucleus, be it empty (i.e. containing no vowel but structurally present) or filled with melody. If an onset branches, the more important (the less sonorous) segment in this onset receives the so-called government-licensing power to govern its governee (the more sonorous one). In many languages, empty nuclei have their licensing power similar to that represented by vowels, but other tongues display gradation in this respect. In other words, empty nuclei can license less than vowels, as a result of which the melodic structure of the preceding onsets may be depleted. Word-final devoicing or cluster simplification are typical examples of what empty nuclei cannot do. Consonant groups which are not branching onsets also take part in governing relations: a consonant terminating one syllable is governed by the onset of the syllable that follows.

Sonority in GP normally goes hand in hand with the so-called element complexity of segments (Harris 1990). Each segment is believed to consist of one or more acoustic and articulatory primes, e.g. [p] includes stopness (ʔ), labiality (U), and noise (h), while [j] contains only palatality (I). Thus, the more complex the segment is, the better governor it should appear. Obstruents are typical governors, while sonorants are standard governees if segments become involved in governing relationships. Fricatives (mostly [s]) are treated as governees if stops follow them.
In the CVCV versions of standard GP, e.g. Rowicka (1999), Cyran (2003), Scheer (2004), and Jaskuła (2006), all initiated by Lowenstamm (1996) and Scheer (1998), consonant clusters are perceived as sequences of onsets which may enter into inter-onset governing relations. In such cases, the less sonorous and, at the same time, the more elementally complex segment, is normally the governor, while the more sonorous one, whose element structure is not particularly rich, is viewed as a governee. Every IO relation must be government-licensed by the nucleus which immediately follows it. As mentioned above, the government-licensing properties of nuclei are language specific: in most languages, vowels are better licensors than empty nuclei (Cyran 2003). In other words, empty nuclei may be equally good licensors in some tongues but they can never license more than full vowels. Polish belongs to languages where empty nuclei can government-license only certain types of consonant clusters, while full vowels are capable of licensing a wider range of sequences. We are interested in word-final clusters, which means that only word-final empty nuclei will be the licensors for governing relations. Using three Polish words, [kant] kant ‘edge’, [cykl] cykl ‘cycle’ and [kontr] kontr ‘counterattack-gen.pl’, we can represent all the possible governing relations between onsets in (1a–c):
In (1a) and (1b), we can see two inter-onset governing relations, leftward (LIO) and rightward (RIO), respectively, where the stops are the governors while the resonants are the governees. The word in (1a) exemplifies a governing domain between the onset (O₃) – the governor, and the governee (O₂). This relation is licensed by the empty nucleus (N₃). The intervening nuclear position (N₂) is an empty slot licensed to be silent by the IO relation and plays no part in phonology. The word in (1b) illustrates a reverse situation, where the governor (O₂) precedes the governee (O₃), also with (N₂) being empty, phonologically unimportant. This relation is licensed by (N₃), which is empty as well. In both (1a) and (1b) the nuclei (N₃) play a role in phonology by being licensers for IO domains.

In (1c) a more complex structure is presented. There are two governing domains here, LIO between (O₃) and (O₂), and RIO between (O₃) and (O₄). In both IO’s (O₃) is the governor licensed to perform its functions by (N₄). These IO relations sanction the phonetic muteness of both the empty nuclei (N₂) and (N₃).

Another way of allowing an empty nucleus to remain silent is Proper Government (PG), which boils down to the presence of a vowel on the right, as in (1d). The word [kɔlt͡sa] kolca is the genitive singular of [kɔlɛt͡s] kolec ‘thorn’. The nucleus (N₂) in [kɔlt͡sa] remains silent because it is properly governed by (N₃). Empty nuclei cannot properly govern.

What these examples show is that word-final empty nuclei in Polish can govern-licence three types of structures: LIO, RIO and both in tandem, on condition that LIO precedes RIO. As regards the melody, we can expect to find sonorants followed by obstruents (or, sometimes obstruents preceding other obstruents, provided that the right-hand one is not less sonorous (or less elementally complex) than its left-hand companion, e.g. [akt] akt ‘act’, [gɔɕt͡ɕ] gość ‘guest’ as in (1a), stops followed by resonants as in (1b), or groups of sonorants split by obstruents, which is exemplified by (1c). As for (1b), the governor must be less sonorous (and more ele-
mentally complex) than its governee. With regard to silencing an empty nucleus, such a position remains empty if it is licensed by either IO or Proper Government.

A word-final, or domain-final empty nucleus is always licensed by parameter, which is language-specific. A domain is a string of sounds over which phonological processes operate freely. A word may consist of one or more domains. In English, [beg∅] beg is one domain, where the final nucleus is licensed, while in [beg∅]z∅ begs, there are two and two empty nuclei are licensed this way.

(1) also includes theoretically illicit structures like (1e), (1f), (1g) and (1h). A word like *[punŋk] (1e) is not part of either Polish or another tongue and this is predicted by the theory. Namely, no way to license either (N₂) or (N₃) is available within the mainstream framework. When we turn to (1f), a word such as [punŋkt] punkt ‘point’ does exist in Polish, German and other languages, and yet its structure is problematic for the same reasons as those in (1e). An interpretation of such combinations in German from the viewpoint of standard GP can be found in Bloch-Trojnar (2002). In the approach advocated here, no such possibility exists. Anyhow, a solution will be proposed below. Finally, words such as [wojsk] wojsk ‘of armies’ (1g) and [miɲsk] Mińsk ‘place-name’ (1h) are well-formed nouns in Polish. And, still, no logical analysis can unequivocally account for their presence from the viewpoint of a CVCV version of GP.

What the structures above illustrate is well-formed and occurring clusters as well as ill-formed but still occurring word-final sequences of consonants. As regards the restrictions that apply to government-licensing abilities of word-final nuclei in Polish, these empty positions are unable to license clusters of voiced obstruents followed by sonorants (Cyran 2003:181ff.), e.g. word-final [dr, gw, bl] are impossible, while [tr, kw, pl] are fine.

A few words should now be said about the involvement of word-internal empty nuclei in the structure of final clusters. Thus, if we encounter a group of three consonants word finally, as in (1c, e, f, g, h), only the final nucleus can licitly remain silent. The other two must be licensed in other ways, as already described. They can also be silenced by mechanisms which have not been mentioned yet and which are more controversial than those described above. As for the treatment of complicated clusters in word-final position, Rowicka (1999) proposes, among other things, that Proper Government should be from left to right and that morphological complexity should be recognized in clusters beginning in a consonant. Therefore, the internal empty nuclear positions are sanctioned. Cyran (2003: 269) claims that word-internal empty nuclei can license the preceding clusters and remain empty even if they are not licensed in any of the ways mentioned so far. In Polish and similar languages, the condition on their muteness is “the paradigmatic ability to license consonantal material”. Gussmann (2007) still uses Magic Licensing (Kaye 1996), a type of licensing which works for [s], but admits that this is a theoretical problem. Although he does not present representations of words in (1g, h), similar common nouns are treated as ones with Magic Licensing. In other words, the sound [s] is special and it
can be licensed in whatever position in the word it finds itself. In a CVCV version of
GP, both codas and onsets from the standard GP syllabification are onsets, but [s] is
still special and requires much attention.

In this paper, we will see that, apart from a number of proper/common nouns
following the pattern shown in (1), some Polish place-names conform to none of the
structures accepted as legal in the light of the theoretical approach advocated above.
Therefore, a new solution should be looked for.

3. Polish place-names and their complex consonantal endings

Names of cities and towns in Polish which display complex consonantal structures at
the right edge can be divided into a few groups from the viewpoint of phonological
complexity. Let us first take a look at (allegedly) bi-consonantal sequences:

(2a) SONORANT [w, j, l, r, ŋ, ɲ] + obstruent or [m]
[wk]: Belk, Elk; [wɪ] Belcz, Bialcz, Kiełcz, Wałcz; [wɛ]: Dziepólć; [wt]: Frywald; [wm]: Chelm
[js]: Łais; [jk]: Majk
[lj]: Kwiełcz, Tolecz, Jelcz; [lk]: Grzebowilk; [lɪs]: Sielc
[rj]: Garecz, Borcz; [rɨs]: Świniec; [rx]: Wierch; [rp]: Karp, Windorp; [rk]: Probark, Malbork, Frombork, Kluczbork; [rt]: Zachart
[ŋk]: Frank
[ɲfj]: Słończ

(2b) FRICATIVE [s, f] + obstruent or palatal(ized) [ɟ, ɕ] + obstruent (affricate)
[sk]: Besk, Głusk, Susk, Pułtusk, Kręsk; [st]: Fidest, Gózd, Zapust, Zajazd
[ʃ]: Łowecz
[ʃ]: Choroszcz, Goszcz, Jaszcz
[ɕ]: Ocieść, Radosć, Miłość

(2c) AFFRICATE [tʃ] + [k]
Otwood, Serock, Puck, Plock, Kock, Nick, Cięc, Łąck

(2d) OTHER COMBINATIONS
[ŋp]: Przyjaźń, Trześni; [ŋl]: Przemyśl, Tomysł
[pf]: Trzebcz, Wabcz
[ʨs]: Wychódźc
[tʃ]: Kiertz; [kʃ]: Mukrz; [pf]: Wieprz, Trybsz
[ks]: Troks ??
From the CVCV perspective, all the sequences from (2a–c) display the structure presented in (1a). The sonorants in (2a) are always more sonorous and elementally less complex than the following obstruents, even if the segment that follows is exceptionally [m], which is still, technically, a stop, especially when compared to a liquid. In any way, it is a stronger segment in terms of sonority and structure. As for (2b), the fricative, palatalized or not, is still more sonorous and less complex than the stop or affricate that follows it. In (2c) the stop which terminates the words is equal to the preceding affricate as well. In (2d) the combinations are peculiar but explicable.

Words like Tomyśl display most likely branching onsets, i.e. RIO relations between onsets. Wąbcz and Wychódźc are LIO relations. Kietrz, Wieprz and the like are RIO: [ʃ] etymologically comes from [r]. Troks, however, remains uncertain as regards syllabification, because it looks like the English sex or box, which require Magic Licensing.

What these examples additionally show, though, is that a few of them are nasalized, e.g. Kręsk, Ciężk, Łąc. All these may be assumed to have different phonological representations. Thus, instead of [krɛ̃sk], [ʨɛ̃sk], [wɔ̃tɛ̃sk], we could propose [krens], [ʨɛns], [wɔntɛns], respectively (see e.g. Biedrzycki 1978 as well as Karaś and Madejowa 1977 for details). Due to this, for the GP framework the structures of these words become problematic. Specifically, we obtain three consonants in a row and two intervening empty nuclei, as in (1e, f). But this is not a dramatic problem, because one can always justify the alternative pronunciations in terms of hypercorrectness or over-stressing nasality by some speakers.

What certainly needs to be added here is a list of final clusters from (2) above which do not occur in the regular vocabulary of Polish. These are given in (3) below.

(3) [wtʃ], [wtɕ], [lɛs], [rɛs], [fjʃ], [fjɛs], [lɛsk]

These clusters constitute about twenty percent of those shown in (2). This number is not particularly great, but it suggests that discussing them as a separate phenomenon is not totally inaccurate.

4. Three consonants at the end of a place-name (C+sk)

A real interpretational problem appears if we take a look at tri-consonantal clusters ending in [sk]. Etymologically, the group [sk] derives from ьskъ, ь being a back/hard yer, the other one being front/soft (Rospond 2000: 109). This ending is related to an adjectival ending in other Slavic languages, e.g. Slovene (slovenski), Serbo-Croatian (hrvatski), Slovak (slovensky), etc. (Stieber 2005: 172–174), as well as in Germanic tongues, e.g. Danish (dansk), German (Polnisch) English (English), or Old English (Englisc). Especially in Germanic languages, this suffix has undergone
phonetic changes which do not concern this analysis, though. Consider the following examples:

(4a) \[r+sk\]

Czersk, Borsk, Przeworsk, Ćwiersk, Garsk, Górsk, Orsk, Piersk, Przeorsk, Siewiersk, Sobiełkursk, Tursk, Wersk, Wąpiersk

(4b) \[l+sk\]

Bielsk, Sielsk, Nowosielsk, Dolsk, Dólsk, Kalsk, Dulsk, Skulsk, Smólsk

Piłszcz ([ʃʃ]) is a palatalized version of [sk])

(4c) \[n+sk\] or \[j+sk\]

Płońsk, Gdańsk, Mińsk, Pińsk, Brański, Młyński, Radoński, Rański, Różyński, Słoński

(4d) \[m+sk\]

Szumsk, Czumsk, Kramsk

(4e) \[j+sk\]

Leżajsk, Rajsk, Tujsk, Wojsk

(4f) \[w+st\] /\[wɨsk\]

Chelst, Palck, Pelck

(4g) \[f+sk\]

Krzewsk, Szpęgawsk, Połtowsk

(4h) \[p+sk\]

Lipsk, Słupsk, Babsk, Krępsk, Sarbsk, Skepsk, Szapsk, Szubsk, Grzebsk

(4i) \[t+sk\] or \[t ͡ s+k\]

Otwock, Serock, Puck, Płock, Kocz, Ciężk, Nick, Płock

Out of these, only the clusters such as [lsk, wst, fsk, psk] rarely appear in the regular vocabulary of Polish. Many of these are quite marginal, e.g. [lsk] and [psk] emerge in the paradigmatic cases of the augmentative only.

In any event, in (4a–b) above, the final cluster is preceded by liquids, in (4c–d) by nasals, in (4e–f) by glides. In (4g) the final group follows the fricative (rare), while in (4h) the labial stop [p]. The cases in (4i) are uncertain as regards the actual number of segments or phonemes. These examples are also included in (2c) above.

As regards the treatment of all these clusters, it is common to assume that they are analytic morphemes and constitute domains of their own (e.g. Rowicka (1999))
argues that most consonant-initial suffixes are analytic. Thus empty nuclei are licensed as domain-final as in Mińsk (5a). However, given that the ending is etymologically the same, it is not certain how to approach the names such as Kock:

(5a)

\[
\begin{array}{cccccccccccc}
O_1 & N_1 & O_2 & N_2 & O_3 & N_3 & O_4 & N_4 \\
|m| & i & n & \emptyset & s & k & \emptyset \\
x & x & x & x & x & x & x & x
\end{array}
\]

If we are to be consistent and to avoid allomorphy, the diagram in (5c) should be more adequate. However, the segment [ts] is recognized officially as the phoneme of Polish, which would favour (5b). Which analysis is better? It is hard to say. However, if we abandon the phoneme and say that once [sk] is a morpheme, it must remain as such, then (5c) is given the upper hand.

Nonetheless, words ending in [tsk] can be analyzed as single domains too. Gussmann (2007) presents common nouns ending in -sk as single domains, e.g. [wapsk] ‘of paws’, with Magic Licensing. He also mentions the name Gdańsk with no comment on the possible analytic structure. Why cannot the place-names ending in C+sk be treated as single domains? The only logical answer is because the nuclei before -sk seem unlicensed except for Magic Licensing, which is difficult in CVCV versions of GP.

What could be offered instead? First, no prejudice. Second, no strict adherence to the phonemic inventory of the language but observing how the structure can group and syllabify a string of sounds. Third, no etymological considerations but interpreting what we see now.

5. A new interpretation of word-final clusters

Let us begin with two Polish place-names containing glides from (3e,f), compared to English words with diphthongs, i.e. coast and waste:
Recalling that not a long time ago the transcription of these English words was [kəwst] and [wejst], both [əw] and [ej] being diphthongs, why not propose the same for Polish? These may simply be diphthongs. In Biedrzycki (1978), diphthongs are a normal part of the phonology of Polish and it is only the phonemic approach that causes problems in this respect. Diphthongs do not stand the minimal pair test and they behave not exactly like the other phonemes. In GP there are no phonemes and yet this way of thinking lingers on.

The absence of the phoneme in GP has very strong foundations. Above all, the two levels of representation (phonemic and phonetic) are absent from the theory because this one is non-derivational. Thus, we cannot derive an allophone via rules. Secondly, finding a sound inventory of a language is of little importance and minimal pairs are irrelevant (e.g. a sound may be an independent phoneme and an allophone of another phoneme at the same time in the same language). Thirdly, what is most essential is relationships between syllabic constituents and their component parts established from the lateral viewpoint. In other words, relations between skeletal positions and their effect on the realization of phonetic material are viewed as more important than just adhering to taxonomic and distributional issues. Fourthly, many phonological phenomena are larger than the phoneme/segment/sound of speech alone. Therefore, prosodic issues are treated with greater attention. One of the results of such an approach is that two neighbouring sounds may be interpreted in dissimilar ways depending on the phonological context.¹

As regards liquids and nasals, these can be syllabic and occupy nuclear slots only, as shown in Gussmann (2002: 69). In Slavic languages, they can also be trapped (Rubach 1997; Bloch-Rozmej 2008; Scheer 2009). Syllabic consonants can bear stress and form syllables while trapped consonants do not display such vocalic abilities. They can be surrounded by consonants, followed by a consonant word-initially or preceded by a consonant word-finally. In Bloch Rozmej (2008: 276) we find generally accepted representations of these consonants.

¹ This paper is not mainly concerned with the reasons why the phoneme should be abandoned from GP and other phonological frameworks over the past fifty years. The reader is referred to Halle (1959), Gussmann (2007, 2009) for details.
Thus, the syllabic consonants are left-branching, while the trapped ones branch to the right. Scheer (2009: 412ff.) claims, however, that trapped consonants do not branch at all, while syllabic segments are right-branching.

Terminology apart, sonorants can apparently be attached to both onsets and nuclei. Consider a few place-names from (4a–d) above with liquids (8a) and nasals (8b).

The sonorants in (8a, b) must be right-branching to occupy the nuclei (N₂) and fill their emptiness. Thus, the liquids and nasals above behave like trapped consonants in the sense of the structure pictured in Bloch-Rozmej (2008) but like syllabic ones according to the arguments presented in Scheer (2009). In any event, they occupy an O-N sequence.

Finally, turning to labial obstruents preceding -šk, i.e. [psk] and [fsk], a few possible names could be provided for them. They can be termed “quasi affricates” or “consonants with double articulation”. The latter concept (Laver 1994: 314–316) has been present in the phonetic terminology for more than a dozen years and yet it has found no appreciation within the framework of GP. Ladefoged and Maddieson (1996: 328) claim that consonants with double articulation are segments “which have two simultaneous articulations of the same degree of stricture, such as two oral closures or two open approximations”, which means that double stops (e.g. [gb]) and nasals (e.g. [ŋm]) are classic examples. Later these authors add that, although doubly-articulated fricatives are not impossible, no convincing evidence has been found
to prove they play any significant role in phonetics. So, two fricatives should rather be treated as examples of “secondary articulation” in their view. Another term that may be employed here is “complex segments”. A complex segment is a sequence of two sounds which simply behave as one because no other analysis seems accurate.

An analysis of German clusters as including non-official affricates can also be found in Bloch-Trojnars (2002). Consider the following examples, which correspond to the data in (4g, h) and, perhaps (4i):

(9a)       (9b)
\[
\begin{array}{cccccc}
O_1 & N_1 & O_2 & N_2 & O_3 & N_3 \\
\mid & \mid & \mid & \mid & \mid & \mid \\
x & x & x & x & x & x \\
\mid & \mid & \mid & \mid & \mid & \mid \\
b & a & p & s & k & k \\
\mid & \mid & \mid & \mid & \mid & \mid \\
l & i & p & s & k & f \\
\end{array}
\]

Is the term “affricate” adequate here? The place of articulation is not the same, but in Ancient Greek, in Phoenician and a few other tongues there are single symbols for such combinations of sounds. In modern languages, we witness single symbols for [ks], i.e. <x> in English, or [tʃ], i.e. <c> in Polish. It goes without saying that spelling is frowned upon in phonology, but it may sometimes be helpful in thinking without prejudice. Maybe the affricate is a segment with a tie above the two consonant symbols attached to the same timing slot, while a consonant with double articulation is actually two consonants without a tie above, but still occupying a single slot. Or, perhaps, we are dealing with two unassociated consonants which are attached to one slot because this is a structural demand. Such a structure might also be named “a complex consonant”. Why not treat these as units occupying one slot? Because they do not pass the commutation test? This test is not part of GP or a few other theories at all.

6. More arguments for new affricates and diphthongs

The theory of GP and the structure restricted by the theoretical assumptions are fine. No new mechanisms are required. Nonetheless, the roles previously assigned to parts of the structure have become different within the framework of GP. The role of the melody interpreted by the structure has changed as well.

Above all, the nature of the nucleus is no longer the same:
(i) it can be empty (not only a vowel);
(ii) it can be occupied by sonorants, syllabic or trapped (not only a vowel);
(iii) a long vowel or diphthong can occupy two nuclei.

Therefore, if an alleged sonorant behaves like the second part of a diphthong, why should it not be treated this way by the structure? Of course, the question of why a sequence such as [aj] is treated as vowel+liquid+obstruent with LIO in one case (e.g. *Majk*) but as a diphthong in another (e.g. *Rajsk*) naturally arises here. The answer is also natural. Since we do not have phonemes, i.e. distinctive units, we interpret the structure in the way which is most likely to be accurate. In other words, [aj] may be one or both. There is no ultimate truth in phonology.

Moreover, the nature of the timing slot has changed:

(i) it need not indicate timing (there are x’s which do not last, e.g. empty onsets with a position in French);
(ii) there are x’s harbouring two sounds, e.g. short diphthongs, not necessarily extremely short.

In the light of these observations, perhaps the terminology needs some revision too. This is because, in GP:

(i) we no longer have syllables;
(ii) we no longer have phonemes or minimal pairs.

If no phonemes or minimal pairs are recognized, any two sounds can be part of one timing slot if their behaviour suggests such an analysis. Hence, if two apparently separate segments behave as one, e.g. [ps] in *Lipsk*, why should we not consider them as occupying one skeletal position? Of course, in a word such as [psa] *psa ‘dog-gen.sg.’* of [pjes] *pies*, they will occupy two separate onsets, while in words like [psɔta] *psota ‘prank’*, the syllabification will not be obvious.

Thus, the foregoing proposal is to treat all the place-names discussed here as single domains and to assume that segments behave the way the structure allows them and are linked to the positions available in a given word. Although this is not the only possibility to abandon theoretical dinosaurs such as Magic Licensing and explain why some nuclei must remain empty, it seems that there is some fundamental logic behind it.

7. What does this give us in the long run and in a broader context?

Finally, let us see what the analysis proposed above can offer to the interpretation of other Polish words and to GP in general.
First, there will be no more worrying about the syllabification of sequences such as [ks] or [ps], [t[s] being an official phoneme. Quasi-affricates, consonants with double articulation or complex consonants are just two speech sounds attached to one skeletal position. Quasi-diphthongs perform the same role: if we have vowels nasalized or gliding, these may be viewed as diphthongal. Resonants, which can be syllabic by nature, behave occasionally as segments linked to two timing positions.

Second, many Polish words, which are difficult to syllabify for the same reasons, can now be interpreted as follows:

\[(10a)\] \[10b\]

\[
\begin{array}{cccccccc}
O_1 & N_1 & O_2 & N_2 & O_3 & N_3 & \quad O_1 & N_1 & O_2 & N_2 & O_3 & N_3 & O_4 & N_4 \\
\mid & \mid & \mid & \mid & \mid & \mid & \mid & \mid & \mid & \mid & \mid & \mid & \mid & \mid \\
x & x & x & x & x & x & x & x & x & x & x & x & x & x & x \\
\mid & \mid & \mid & \mid & \mid & \mid & \mid & \mid & \mid & \mid & \mid & \mid & \mid & \mid \\
t & e & k & s & k & & v & o & j & s & k & o & \quad v & o & \text{c} & \text{w} & s & e & i \\
w & a & p & s & k & & & & & & & & & & \\
\end{array}
\]

*tekst* ‘text’ \quad *wojsko* ‘army’

*łapsk* ‘of paws’ \quad *wąski* ‘narrow’

Finally, consonant combinations in languages such as English (e.g. *box*, *instinct*), Norwegian (e.g. [blɔmst] ‘flower’, [bӕjst] ‘beast’) and many other tongues, could be easily analyzed with no need to resort to Magic Licensing or any extraordinary mechanisms.

8. Conclusion

The Polish place-names analyzed in this paper can be treated as ones shedding new light on the syllabification of word-final consonant clusters in the Polish language. This new interpretation is possible if we reject the view that whatever is attached to a timing slot must be a phoneme, i.e. if we abandon the phoneme truly. If the proposal that what behaves as a segment can be treated as a segment is accepted (although this fact need not be recognized as phonemic), then we open new possibilities for the melodic interpretation of Polish words and support the basic notions of Government Phonology, where governing relations between timing slots occur whenever possible and where the phonological structure of words remains constant.
REFERENCES


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