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Morphological Aspects of Verbal Negation in Polish

1 Introduction

Verbal negation in Polish, in spite of its ubiquity and productivity is a relatively poorly investigated phenomenon. Traditional Polish grammars, e.g., Krasnowolski (1911), Szober (1953) and Klemensiewicz (1968), do not mention negation at all, while many other grammar textbooks do not deal with the nature of negation *per se*. The negative marker *nie* 'not' is called a 'particle', e.g., Bąk (1984), Jaworski (1986), Bartnicka and Satkiewicz (1990) or a 'modulant', e.g., Jodłowski (1976). These terms, however, are vague and usually merge both syntactic and morphological concepts. Also theoretical approaches do not provide a uniform treatment of *nie*. In works within the Chomskyan tradition, e.g., Willim (1990), Borsley and Rivero (1994), Śpiewak and Szymańska (1995), Witkoś (1996), *nie* is assumed to be a clitic. On the other hand, Saloni and Świdziński (1985) treat the negative marker as a morphological category, whereas in Świdziński's (1992) Metamorphosis Grammar verbal negation is analysed in purely syntactic terms: *nie* is a lexical item attached to the verb via syntactic rules.

The aim of this paper² is to establish the formal status of verbal negation. We argue that the negative marker is realised as a verbal prefix rather than attached as a lexical item in the syntax. We recapitulate various arguments put forward in the literature, e.g., Saloni and Świdziński (1985), and then we reinforce them with our own observations. Our claim, i.e., negation as a morphological category, is briefly commented on in each section while the summary and some problematic issues are postponed to the final discussion.

See, e.g., Goląb *et al.* (1968) and Polański (1993) for the definition of 'particle' as used by Polish grammarians and Zwicky (1985) for some cross-linguistic discussion.

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2 Arguments for Morphological Negation

2.1 Prosody

Rubach and Booij (1985) show that if *nie* precedes a monosyllabic verb, they are treated as a prosodic unit for the purpose of lexical stress assignment, (1a).³ This example should be contrasted with (1b) where the presence of another monosyllabic item is ignored and stress falls as usually on the (non-negated) verb wiem '(I) know'.

a. nié wiem 'I don't know.' (1)

not know-I

b. czy wiém 'do I know'

Q know-I

This contrast is immediately explained if nie is treated as a verbal prefix, unlike the (syntactic) question marker czy.

2.2 Frame Variation

First, we present a couple of non-conclusive arguments and then we give what we take to be a strong argument for the morphological analysis of *nie*.

A well-known frame variation triggered by negation is the Genitive of Negation (GoN), (2). In Polish, this phenomenon is fully regular: whenever the verb subcategorizes for an accusative complement, (2a), its negated counterpart expects a genitive NP, (2b).

'John likes Mary.' a. Janek lubi Marysię. (2)

John likes Mary_{acc}

b. Janek nie lubi Marysi. 'John doesn't like Mary.'

John not likes Mary_{gen}

The full productivity of GoN as well as its presence in (complementizerless) infinitival clauses (the affected complement need not be a direct argument of the negated verb) allow one to analyse this phenomenon in the syntax, cf. e.g., Willim (1990), Witkoś (1996), Przepiórkowski (1996), Przepiórkowski and Kupść (1997a,b). Hence, GoN does not provide a strong argument for morphological analysis of negation.⁴

Another interesting frame variation triggered by negation occurs in the paradigms of verbs such as przypuszczać 'to presume' or sądzić 'to judge', (3). They take subjunctive complements (introduced by żeby 'that') only when negated, (4b), whereas their non-negated counterparts allow only for indicative complements (introduced by że 'that'), (4a), cf. Saloni and Świdziński (1985), Greszczuk (1993).

³ We use 'to mark stressed syllables.

⁴ The weakness of this argument is also admitted in Saloni and Świdziński (1985).

(3) a. Przypuszczam, że przyszedł. presume-I that came_{ind}-he

'I presume that he came.'

b.* Przypuszczam, żeby przyszedł. presume-I that came_{subj}-he

(4) a. Nie przypuszczam, że przyszedł.

'I don't suppose he came.'

b. Nie przypuszczam, żeby przyszedł.

'I suppose he didn't come.'

However, similar behaviour is attested cross-linguistically, also in languages where verbal negation is arguably syntactic, cf. Laka (1990). Hence, just like GoN, this argument does not strongly support morphological status of *nie*.

The most striking example of alteration triggered by negation in Polish is the behaviour of the verb $by\dot{c}$ 'to be', more precisely, its existential variant, cf. Krasnowolski (1911). There are two negative forms of this verb: the regularly inflected *nie* $by\dot{c}$, 'not to be', (6a) and the irregular (suppletive) form *nie* ma, ('there isn't', lit.: 'not has'), (6b). It is (6b) rather than (6a) that is the true sentential negation of (5); (6a) has only the contrasting meaning.

(5) Książka jest na stole.

'(the) book is on (a/the) table.'

book_{nom} is on table

(6) a. Książka nie jest na stole (tylko na półce).

book_{nom} not is on table but on shelf

'(the) book is not on (a/the) table (but on the shelf).'

b. Książki nie ma na stole (* tylko na półce).

bookgen not has on table

'(the) book is not on (a/the) table.'

Note also that in (6b) the subcategorization frame is different as well: the nominative subject in (5) becomes a genitive argument in (6b).⁶

It cannot be suggested that the paradigm of *nie mieć* 'not to have' is the negation of the existential $by\acute{c}$: in the present tense, only *nie ma* (third neuter singular verb form) is used for the sentential negation of $by\acute{c}$, (8c), irrespectively of the number specification on the subject:⁷

(7) Chłopcy są w szkole.

'(the) boys are at school.'

 $boys_{nom}$ are in school

(8) a. * Chłopcy nie mają w szkole.

 $boys_{nom}$ not have-they in school

⁵ Some hints for a diachronic explanation of this fact are given in Greszczuk (1993), p.35.

⁶ This differs, of course, from GoN as it is the nominative subject here that changes its case into genitive, rather than the accusative object. Hence, we do not side here with Witkoś (1996) who treats this alteration as GoN (in the subject position).

We use '*' to mark ungrammatical sentences while '#' indicates sentences ungrammatical with the intended interpretation.

b.# Chłopców nie mają w szkole. boys_{gen} not have-they in school

Lit.: 'They have no boys at school.'

c. Chłopców nie ma w szkole.

'There are no boys at school.'

boys_{gen} not has in school

Note that in the future and past tense, a form of $by\dot{c}$ (third neuter singular) is used again for negation, (9)–(10).

Chłopców nie było/ nie będzie dziś w szkole. boys_{gen} not were not/ not will-be today in school `(the) boys were not/ will not be today at school.'

(10) # Chłopców nie miało/ nie będzie miało w szkole.

boys_{gen} not had/ not will-be had in school

Lit.: 'It didn't have/ won't have boys at school.'

Also some idiomatic expressions with być can be negated only via nie ma, (11a) and (12a). The morphologically regular negation is impossible, (11b) and (12b).

Nie ma czego żałować. (11)a. Jest czego żałować. not has something regret_{inf} is something regret_{inf}

> 'It is something to regret.' 'There is nothing to be sorry about.'

b. * Nie jest czego żałować.

(12)a. Jest gdzie się kapać. Nie ma gdzie się kapać. is where SELF bath_{inf} not has where SELF bath_{inf} 'There is a place to take a bath.' 'There is no place to take a bath.'

b. * Nie jest gdzie się kapać.

We conclude that, in the case of the existential $by\dot{c}$, negation affects not only valence but also morphology of the verb and, hence, must be analysed as a lexical phenomenon. If there are verbs which must be negated in the lexicon, and if all verbs can be negated in the lexicon, we consider it desirable to view verbal negation uniformly as a lexical phenomenon.

2.3 Lexical Negation

Verbal negation is not a homogeneous phenomenon and arbitrary gaps in the paradigm exist. Some negated verbs are independent lexical entries: they cannot be produced via a regular rule adding *nie* to a positive verb because no corresponding positive verb exists. For example, apart from the regularly negated verb cierpieć 'to suffer', cf. (13a), there is the idiomatic verb nie cierpieć 'to hate', which lacks the non-negated form,

This idiosyncrasy is also noted in Witkoś (1996).
 See also Bugajski (1983) for a list of lexicalized expressions which are formed only with negated verbs, e.g., *nie ulega kwestii* `(it) is unquestionable'.

(13b). This verb should be distinguished from (13a), as it takes an infinitive complement.

(13) a. Cierpiał wiele. Nie cierpiał wiele. suffered-he a lot not suffered-he a lot

'He suffered a lot.' 'He didn't suffer very much.'

b.*(Nie) cierpię słuchać, jak gadasz takie bzdury. not suffer-I listen_{inf} as speak-you such rubbish 'I hate listening to that rubbish you say.'

There are more verbs which do not have 'positive' counterparts and *nie* is built-in into their morphology, e.g.:

(14) a. nienawidzić (kogoś) 'to hate' *nawidzić
b. niewolić 'to imprison' *wolić
c. niepokoić 'to disturb' *pokoić
d. niedomagać 'to suffer from' *domagać

Note, however, that the verbs in (14) differ from *nie cierpieć* 'to hate' in (13b) since they do not license n-words. ¹¹ see (15a) vs. (15b).

(15) a. Nie cierpię nikomu pomagać. 'I hate helping anybody.' not suffer-I nobody help

b. Nigdy *(nie) niepokój Jana. 'Don't ever disturb John.'

Observe that even homophonous verbs can have different properties. There are two verbs $nienawidzi\acute{c}$: one which takes an NP complement, (14a), and another one, (16), which takes an infinitive complement. The former behaves analogously to (15b) while the latter seems to act as overtly negated verbs do: it triggers GoN, (16a), and licenses n-words, (16b). 12

(16) a. Jan nienawidzi pisać listów/*listy. 'John hates writing letters.'

John hates write_{inf} letters_{gen/*acc}

b. Jan nienawidzi nikomu pomagać. 'John hates helping anybody.' John hates nobody_{dat} help_{inf}

Moreover, the verb *prosić* 'to ask for' (with an infinitive complement) does not have a negated form, ¹³ cf. (17), Saloni and Świdziński (1985).

(17) a. Proszę przyjść o siódmej. 'Come at seven, please.'

We use *(nie) to mark that a sentence is grammatical only if nie is present and incorrect otherwise.

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We use the term *n*-words, after Laka (1990), to refer to words that trigger verbal negation, e.g., *nikt*, 'nodody', *nic*, 'nothing', *nigdy*, 'never', etc. Polish is a Negative Concord (NC) language: not only are *n*-words licensed by verbal negation, but they always require the verb to be overtly negated, cf. Przepiórkowski and Kupść (1997a,b,1998) and Błaszczak (1998) for some analyses of NC in Polish.

¹² There is some speaker variation in the acceptability of (16b).

¹³ This verb is idiosyncratic also in other respects as it has only first person forms.

ask-I come_{inf} at seven

b. * Nie proszę przyjść o siódmej. not ask-I come_{inf} at seven

All these examples show that verbal negation is not a uniform phenomenon as certain verbs lack non-negated or negated forms. A straightforward account for this fact is to enumerate them directly in the lexicon. This, in turn, leads us to treating the negative marker *nie* as a verbal prefix.

2.4 Coordination

In contrast to clitics, e.g., bym 'I'd' in (18a), nie cannot take wide scope over coordination, (18b). In order to negate both conjuncts, nie has to be repeated on both verbs separately, (18c).

- (18) a. Chętnie bym [czytał i pisał] książki. 'I'd willingly read and write books.' willingly I'd read and write books
 - b. * Nie [czytam i rozumiem] książek. 'I don't read and understand books.' not read-I and understand-I books
 - c. Nie czytam i nie rozumiem książek. not read-I and not understand-I books 'I don't read and don't understand books.'

In Miller (1992), coordination is applied as a test to distinguish morphological from syntactic realisation of an item. Affixes, unlike postlexical clitics (PLC), i.e., prosodically deficient elements which are inserted in syntax on a par with syntactic objects, cannot take wide scope over coordination.

Although the impossibility of taking scope over coordination is usually taken as a strong argument in favour of morphological status of the item, this property is shared by some adverbs. French manner adverbs or *très* 'very' modify the word directly and cannot take wide scope over coordination, e.g., Abeillé and Godard (1997). In Polish, there exists a class of adverbs, e.g., *prawie* 'nearly', *naprawdę* 'really', that modify the verb directly, cf. (19). ¹⁴ Therefore, this would be a natural class which *nie* should belong to if it were a negative adverb similar to French *pas* or English *not*.

- (19) a. Tomek prawie skończył swoją książkę. 'Tom nearly finished his book.'
 Tom nearly finished self 's book
 - b. * Prawie Tomek skończyl swoją książkę.
 - c. ? Tomek skończył prawie swoją książkę.
 - d. * Tomek skończył swoją książkę prawie.

However, unlike in the case of *nie*, these adverbs can (optionally) take wide scope over coordination, (20). Hence, the parallelism between such scope elements and the negative marker cannot be preserved; *nie* should be analysed as a morphological prefix.

¹⁴ These examples are taken from Śpiewak and Szymańska (1995) but judgements are our own.

- (20) a. Tomek prawie [przeczytał] i zrozumiał książkę Jasia.
 - Tom nearly read and understood book John's
 - 'Tom nearly read and understood John's book.'
 - b. Tomek prawie [przeczytał i zrozumiał] książkę Jasia.

2.5 Word Order

In Polish, a relatively free word order language, sentential negation is obtained only if *nie* directly precedes the verb, (21).

(21) Często nie czytam książek. 'I often don't read books.' often not read-I books_{gen}

Placing *nie* elsewhere results in negating the immediately following element: 'often' in (22a), 'books' in (22b). Constituent negation, (22), differs from sentential negation, (21), since it does not trigger GoN. In (22), unlike in (21), accusative case of the complement is unaffected.

- (22) a. Nie często czytam książki. 'I not often read books.' not often read-I books_{acc}
 - b. Często czytam nie książki, tylko gazety. often read-I not books_{acc} only newspapers 'I often read not books but newspapers.'

The placement of Polish (pronominal) clitics is relatively free, cf. (23a)–(23c), but they cannot be inserted between *nie* and the verb, (23d). Note also that Polish clitics are promiscuous, cf. (23) for the pronominal *go* 'him' (*się* 'self', *bym* 'I'd', etc. behave analogously), unlike the sentential negative marker, which has to be attached directly to the verb, (21) (otherwise, only constituent negation results, (22)).

- (23) a. Janek go wcale nie zaprosił.

 John him at-all not invited
- 'John didn't invite him at all.'
- b. Janek wcale go nie zaprosił.
- c. Janek wcale nie zaprosił go.
- d. * Janek wcale nie go zaprosił.

One might speculate that the badness of (23d) is due to insufficient prosodic support of both items to license each other. However, as (24) shows, relationship between *nie* and the verb is stronger than between any other pair of adjacent words. While the vulgar expletive *kurwa* 'fucking' (lit. 'whore') can be inserted between any adjacent words, it cannot occur between *nie* and the following verb, (24c).

- a. Może, kurwa, go nie wal tym łomem?!
 maybe EXPL him not batter this crowbar
 'Why don't you fucking stop battering him with this crowbar?!'
 - b. Może go, kurwa, nie wal tym łomem?!

- c. * Może go nie, kurwa, wal tym łomem?!
- d. Może go nie wal, kurwa, tym łomem?!
- e. Może go nie wal tym, kurwa, łomem?!

Observe that such a strict adjacency requirement is not the property of *prawie*-adverbs, either. Expletives, (25a), as well as (pronominal) clitics, (25b), can separate the adverb from the verb.

(25) a. Tomek prawie, kurwa, skończył swoją książkę.

Tom nearly fucking finished self 's book

'Tom has nearly fucking finished his book.'

b. Tomek prawie ją skończył.

'Tom has nearly finished it.'

Tom nearly her finished

This contrast can be immediately explained if *nie* differs from both clitics and *prawie*-adverbs in being a verbal prefix. ¹⁵

3 Discussion

The facts presented above strongly support a morphological analysis of nie. Such an account allows us to straightforwardly explain prosodic properties of negated monosyllabic verbs, suppletive form of $by\acute{c}$, the lack of full productivity of nie-attachment to the verb, as well as coordination and word order facts. Assuming that nie is a clitic, cannot account for lexical exceptions (idiosyncrasy of $by\acute{c}$, lack of negative or positive forms), strict adjacency to the verb (exceptional in the domain of Polish clitics) and coordination (wide scope would be allowed). The analysis of nie as a negative adverb is unsatisfactory for the same reasons.

There are, however, two issues, i.e., behaviour of *nie* in questions and ellipsis, that are less straightforward to account for under the morphological analysis. We briefly discuss them below.

Questions As (26) shows, *nie* can occur alone if it is used as a negative answer to a question. Such behaviour is unexpected for an affix while it is quite natural for an independent syntactic item.

(26) Czy Jan lubi Marysię? Nie.

'Does John like Mary? No.'

Q John likes Mary? Not

Note, however, that *nie* can be considered a different item here. In many languages this type of the negative marker is overtly distinct from the sentential negation marker, e.g.,

¹⁵ In Polish, unlike in English, expletive insertion within words is in general infelicitous. Thus, English *fan-fuckin-tastic*, Sproat (1992), p.49, fn.20, cannot be rendered by Polish *fanta-kurwa-styczny*, in spite of the fact that infixation occurs before prosodic foot (the syllable *-sty-*) which is a precondition for such an infixation in English.

English *no*, French *non*, German *nein*, Russian *niet*, etc. A similar distinction is also proposed in the study of Polish prosodic structure of Rubach and Booij (1985).

Ellipsis More problematic is the behaviour of *nie* with respect to ellipsis. Words easily undergo syntactic processes, while this is not a typical behaviour of morphological categories. As (27) shows, if the verb is elided, *nie* can be left alone. This is unexpected if we treat *nie* and the verb as a morphological unit.

(27) Marysia lubi Janka, a Janek Marysi nie.

Mary likes John and John Mary not

'Mary likes John but John does not like Mary.'

We admit that this issue is problematic for our account. Ellipsis is in general a highly unexplored phenomenon in Polish and behaves in a quite unexpected way also in other negative contexts, see Przepiórkowski and Kupść (1998). Hence, we leave this problem for the future research.

The morphological account postulated in this paper allows us to uniformly explain facts presented in section 2. The two issues which seem to be puzzling for this analysis turn out not to be strong arguments against morphological status of *nie*. The negative marker in questions can be treated as a separate item while the analysis of examples such as (27) depends on a particular account of ellipsis. Providing such an account is far beyond the scope of this paper.

References

Abeillé, A. and Godard, D. (1997), The syntax of French negative adverbs. In P. Hirschbühler and F. Martineau, editors, *Negation and Polarity*. Benjamins, pages 1–27.

Bak, P. (1984), Gramatyka języka polskiego. Wiedza Powszechna, Warszawa, fourth edition.

Bartnicka, B. and Satkiewicz, H. (1990), *Gramatyka języka polskiego dla cudzoziemców*. Wiedza Powszechna, Warszawa.

Błaszczak J. (1998), Towards a Binding Analysis of Negative Polarity Items in Polish. To appear in Proceedings of the Second International Conference on Formal Description of Slavic Languages, November 20–22, 1997, Potsdam.

Borsley, R. D. and Rivero, M. L. (1994), Clitic auxiliaries and incorporation in Polish. *Natural Language and Linguistic Theory*, **12**, 373–422.

Bugajski, M. (1983), *Morfem* się we współczesnym języku polskim i zasadach pisowni, volume 647. Acta Universitatis Wratislaviensis, Wydawnictwo Uniwersytetu Wrocławskiego, Wrocław.

Gołąb, Z., Heinz, A., and Polański, K. (1968), *Słownik Terminologii Językoznawczej*. Państwowe Wydawnictwo Naukowe.

- Greszczuk, B. (1993), *Składniowe wykładniki negacji i ich funkcje w historii języka polskiego*. Wydawnictwo Wyższej Szkoły Pedagogicznej w Rzeszowie, Rzeszów.
- Jaworski, M. (1986), *Podręczna gramatyka języka polskiego*. Wydawnictwa Szkolne i Pedagogiczne, Warszawa, fourth edition.
- Jodłowski, S. (1976), Podstawy polskiej składni. Państwowe Wydawnictwo Naukowe, Warszawa.
- Klemensiewicz, Z. (1968), *Podstawowe wiadomości z gramatyki języka polskiego*. Państwowe Wydawnictwo Naukowe, Warszawa, fifth edition.
- Krasnowolski, A. (1911), *Główne zasady składni polskiej*. Wydawnictwo M. Arcta, Warszawa, second edition.
- Laka, I. (1990), Negation in Syntax: On the Nature of Functional Categories and Projections. PhD dissertation, MIT, Cambridge, Mass.
- Miller, P. (1992), Clitics and Constituents in Phrase Structure Grammar. Garland, New York.
- Polański, K., editor (1993), Encyklopedia językoznawstwa ogólnego. Ossolineum, Wrocław.
- Przepiórkowski, A. (1996), Case assignment in Polish: Towards an HPSG analysis. In C. Grover and E. Vallduví, editors, *Edinburgh Working Papers in Cognitive Science*, *Vol. 12: Studies in HPSG*, pages 191–228. Centre for Cognitive Science, University of Edinburgh.
- Przepiórkowski, A. and Kupść, A. (1997a), Negative concord in Polish. Technical Report 828, Institute of Computer Science, Polish Academy of Sciences.
- Przepiórkowski, A. and Kupść, A. (1997b), Verbal negation and complex predicate formation in Polish. In *Proceedings of the 1997 Conference of the Texas Linguistics Society on the Syntax and Semantics of Predication*, volume 38 of *Texas Linguistic Forum*, pages 247–261, Austin, Texas.
- Przepiórkowski, A. and Kupść, A. (1998), On locality of negative concord in Polish and Romance: A lexicalist approach. To appear in: R. D. Borsley and A. Przepiórkowski (eds.), *Slavic in HPSG*, CSLI Publications.
- Rubach, J. and Booij, G. E. (1985), A grid theory of stress in Polish. Lingua, 66, 281–319.
- Saloni, Z. and Świdziński, M. (1985), *Składnia współczesnego języka polskiego*. Państwowe Wydawnictwo Naukowe, second edition.
- Spiewak, G. and Szymańska, I. (1995), A poll on Pollock functional categories in Polish. In E. Gussman, editor, *Licensing in Syntax and Phonology*, volume 1 of *PASE Studies and Monographs*, pages 125–145. Folium, Lublin.
- Sproat, R. (1992), Morphology and Computation. The MIT Press, Cambridge, Massachusetts.
- Świdziński, M. (1992), *Gramatyka formalna języka polskiego*, volume 349 of *Rozprawy Uniwersytetu Warszawskiego*. Wydawnictwa Uniwersytetu Warszawskiego, Warszawa.
- Szober, S. (1953), Gramatyka języka polskiego. Nasza Księgarnia, Warszawa, third edition.
- Willim, E. (1990), On case-marking in Polish. *Papers and Studies in Contrastive Linguistics*, **XXV**, 203–220.
- Witkoś, J. (1996), On NegP and the structure of the Polish clause. *Papers and Studies in Contrastive Linguistics*, **XXX**, pages 67–96.

Zwicky, A. M. (1985), Clitics and particles. *Language*, **61**(2), 283–305.

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