

## Negation Raising and Mood. Corpus Evidence from Polish

It is known that with certain verbs (such as *think* or *believe*), a negation in the matrix clause can be understood as negating the embedded proposition (1). Such verbs are referred to as **negation raising** predicates (**NR** predicates) and are attested in many languages (Fillmore 1963, Bartsch 1973, Horn 1978, Gajewski 2007).

According to Horn (1978), NR predicates can be classified into five semantic categories: (i) opinion, (ii) perception, (iii) probability, (iv) obligation, and (v) intention/volition. It has been also observed that NR predicates behave in a way similar to performatives (Prince 1976): They prefer the first person present non-progressive form (in English). An and White (2020) further show that the following properties of embedded clauses influence whether NR inferences are triggered: the semantics of embedded predicates (eventive versus stative) and finiteness (finite versus non-finite clauses), which implies the presence or absence of tense and the presence or absence of an overt subject. This paper identifies another possible factor triggering NR inferences based on corpus evidence from Polish: the mood of the embedded clause (indicative versus subjunctive).

The distribution of the negated NR predicate *sądzić* ('think') (Wierzbicka 1969, Fisiak et al. 1978, Modrzejewska 1981) was examined in the full version of the National Corpus of Polish (Przepiórkowski et al. 2012). Note that the negated verb *sądzić* exhibits two selectional patterns: It can select indicative complement clauses introduced by the complementizer *że* ('that') (2) and subjunctive complement clauses introduced by the complementizer *żeby* or its variants *by* or *aby* ('that') (3). In contrast to sentences with *że*, where the negation can also occur within the embedded clause and affirmative structures are possible, sentences with *żeby* obligatorily contain a negation in the matrix clause. A negation within the complement clause and affirmative structures are excluded with *żeby*. However, the matrix negation in sentences with *żeby* can still be understood as negating the embedded proposition. The presence of a semantic negation in the embedded *żeby*-clause is evidenced by (strong) Negative Polarity Items (NPIs), which can be licensed within these clauses.

The results of our corpus study show that the tense and person form of the negated verb *sądzić* correlate with its preferences for *że*- versus *żeby*-clauses (Figure 1). The first person present form is associated with *żeby*-clauses significantly stronger than with *że*-clauses. These findings suggest that the subjunctive mood introduced by *żeby*-clauses might be an important trigger of NR inferences in Polish.

**Word count: 405**

- (1) Phil doesn't think Mary will come.  
**Reading 1:** 'It is not the case that Phil thinks Mary will come.'  
**Reading 2:** 'Phil thinks Mary will not come.' (NR reading)
- (2) Jan nie sądzi, że Ewa wróci.  
 Jan NEG think.3.SG.PRES [ŻE Ewa come-back.3.SG].INDICATIVE  
**Reading 1:** 'Jan doesn't think that Ewa will come.'  
**Reading 2:** 'Jan thinks that Ewa will not come.' (NR reading)
- (3) Jan \*(nie) sądzi, żeby Ewa wróciła.  
 Jan NEG think.3.SG.PRES [ŻEBY Ewa come-back.3.SG].SUBJUNCTIVE  
**Reading 1:** 'Jan doesn't think that Ewa would come.'  
**Reading 2:** 'Jan thinks that Ewa would not come.' (NR reading)

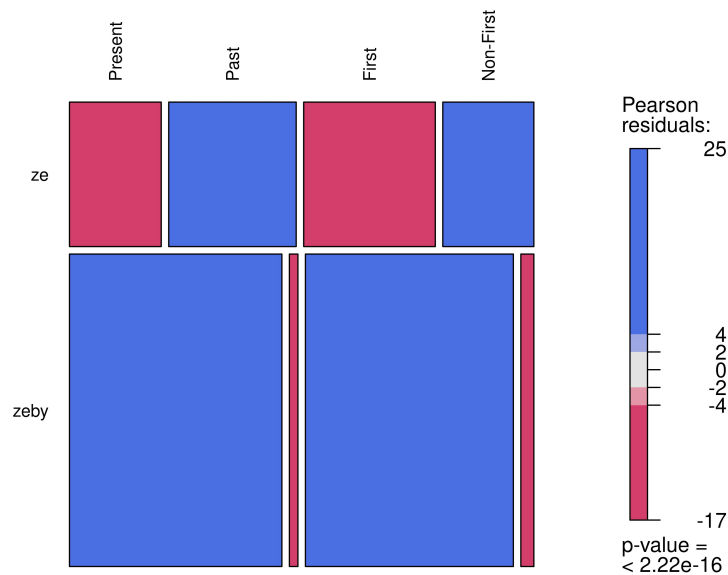


Figure 1: Mosaic plot of the form of the negated verb *sądzić* (present versus past and first person versus non-first person) and the type of the embedded clause (indicative *że*-clause versus subjunctive *żeby*-clause)

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