Interpreting argumental n-words as answers to negative wh-questions

1. Aim. This talk aims to explain the lexical characterization and final semantic interpretation associated with isolated argumental n-words in Question-Answer (Q-A) pairs in Catalan and Spanish, two Negative Concord languages. We argue that there are two competing lexical variants of n-words in these languages, and, following a Structured Meaning approach to the semantics of Q-A pairs, we present a new analysis of n-words as focus constituents with respect to background wh-questions, according to which a final single negation reading can only be inferred from n-words conceived as indefinite polarity items, whereas a Double Negation (DN) reading is inferred from negative existential quantifier variants.

2. Problem. Unlike in so-called DN languages (Standard English, German), where isolated negative indefinites such as *nobody* or *nothing* used as answers to a negative wh-question yield a DN reading (1A), an experimental investigation carried out by Espinal et al. (2015) shows that when the intonation contour of the isolated answer is unmarked (i.e., a fall boundary tone, L+H*L% in Cat_ToBI and Sp_ToBI), participants associate the argumental n-word with a single negation reading 57.5% of the time in Catalan, and 66% of the time in Spanish. The proportion of DN responses in the interpretation of Catalan *ningú/res* and Spanish *nadie/nada* is surprising, as single negation is the only possible interpretation according to the description of n-words in traditional/prescriptive grammars and in some descriptive/theoretical studies for Catalan (cf. Fabra 1956; Solà 1973; Vallduví 1994; Espinal 2000, 2002) and for Spanish (cf. Bosque 1980, Sánchez 1999, RAE 2009). See (2A).

3. Analysis. To account for the fact that, without a marked prosodic contour, a compositionally-driven DN interpretation is possible both in Catalan and Spanish, we assume that argumental n-words in these languages come in two lexical variants (cf. Herburger 2001). One variant of these items is an indefinite expression, characterized semantically with a polarity feature. A competing variant (Kroch 2000) for n-words is variably available, and is characterized semantically as a negative existential quantifier. For a population of native speakers, n-words are only lexically specified as indefinite Polarity Items, *n-words*$_1$ (3a); for a second population of native speakers n-words are also specified as negative quantifiers, *n-words*$_2$, (3b).

We show that, combining Zeijlstra's (2004, and ff.) analysis of NC in Romance –conceived as syntactic Agree– with Merchant's (2001, 2004) clausal ellipsis account of fragment answers, DN is predicted to be the only possible interpretation for Catalan and Spanish n-words used as answers to negative wh-questions, unless the stipulation that the negated part of the negative question *may but does not have to* license the elided part is introduced in the discussion. DN follows from the presence of two [iNEG] features in the syntactic structure: one in the covert Op$\neg_{[iNEG]}$ that licenses the isolated n-word moved to a syntactic Focus position, and another one copied from the negative wh-question. See (4). Following this combined syntactic analysis, the single negation interpretation of argumental isolated n-words used as fragment answers illustrated in (2A) cannot be explained straightforwardly.

Under Giannkakidou's (2000, 2006) semantic propositional isomorphism the isolated argumental n-word *nadie* in (2A) stands for *Nadie no llevaba gafas*, which contains the inherent negation driven by the n-word ($\neg\exists$, our *n-word*$_2$) plus the inner negation conveyed by the negative question. That is, *nadie* stands for $\neg\exists$x [PERSON(x) & $\neg$wear(glasses,x)]. Accordingly, *nadie* as an answer to (2Q) can only be interpreted as conveying a DN reading.

Thus, in this talk we will present arguments against an ellipsis account of the interpretation of isolated n-words. Furthermore, this discussion will lead to a new analysis (inspired on the Structured Meaning approach developed by von Stechow 1991, and Krifka 2001, 2004, 2007, 2011) that accounts not only for the marked DN reading that one population of Catalan and Spanish speakers associate with n-words, but, crucially, also for the unmarked single negation reading that another population of Catalan and Spanish speakers associate with isolated n-words. With respect to the wh-constituent question, the n-word answer indicates the existence of a set of alternatives of the denotation (Krifka 2007, 2008), which must be of the same type (either entities $\langle e\rangle$ or generalized quantifiers $\langle\langle e,t\rangle t\rangle$; (5)), and of the same ontological sort (persons, things, places, etc.).

With respect to the meaning of the wh-question, as expressed in (6), depending on whether the wh-domain is (5a) or (5b), the final interpretation associated with the isolated n-word is going to be single negation or DN.

How are the two meanings composed? When the wh-domain is of the type in (5a) the interpretation of the focus answer in (2A) has the structured property in (7), with a B(ackground) part that comes from the meaning of the question and a F(ocus) part that is a member of the domain of the question. In this logical formula the B part is the functor and the F part is the argument. When the wh-domain is of the type in (5b) the logical representation corresponding to the ⟨B,F⟩ information structure requires a more elaborate form in which the F part (the generalized quantifier) is the functor, and the B part (the structured property corresponding to the wh-question) is the argument. In (8) we use script $\wp$ as a symbol for such higher-order generalized quantifiers that take the B part as their argument; by applying the contents of the negative existential quantifier to this formula, we obtain a semantic derivation that conveys a compositional DN reading.

(1) Q: Who did*n't* do the homework? (English)
A: *Nobody*. (= Nobody didn't do the homework; → Everybody did the homework)
[$_{FocP}$ nobody$_i$ [E] [$_{TP}$ ~~t$_i$ didn't do the homework~~]] DN

(2) Q: ¿Quién *no* llevaba gafas? (Spanish)
who not wore glasses 'Who wasn't wearing glasses?'
A: *Nadie*. nobody (= Nobody was wearing glasses) Single negation

(3) a. *n-words$_1$* – semantically characterized by a strong scalar feature [+σ] that forces their interpretation in a domain-widening context (Chierchia 2006). Conceived as polar roots, these items may merge in the course of the derivation (contra Zeijlstra 2004) with an abstract syntactic [uNEG] feature and, hence, participate in NC structures.
b. *n-words$_2$* – semantically characterized as ¬∃. It does not require any sort of syntactic checking to be negative and therefore does not participate in NC structures.

(4) [Op¬$_{[iNEG]}$ [$_{FocP}$ nadie$_{[uNEG]}$ [E] [$_{TP}$ ~~t$_i$ no$_{[iNEG]}$ llevaba gafas~~]]]

(5) a. Wh-domain$_1$: M = {j, m, ..., x$_{[+\sigma]}$};
where $x_{[+\sigma]}$ = variable carrying a polarity-sensitive formal feature
b. Wh-domain$_2$: M = {λR[R(j)], λQ[Q(m)], …, λP¬∃x[P(x)]};
where *λP¬∃x[P(x)]* = negative existential quantifier

(6) ⟨…, C⟩ + REQUEST$_{S1,S2}$ (ASS(¬p))
where ¬p = [¬WEAR(GLASSES)(WHO)]
and ∃c ∈ C |c: ∃x [¬WEAR(GLASSES)(x)]

(7) ⟨λx[¬WEAR(GLASSES)(x)],⟨x$_{[+\sigma]}$⟩⟩

(8) λ$\wp$. $\wp$ {λx[¬ATE(DESSERT)(x)]} (λP¬∃y[P(y)])
= λP¬∃y[P(y)]{λx[¬ATE(DESSERT)(x)]}
= ¬∃y[λx[¬ATE(DESSERT)(x)](y)]
= ¬∃y[¬ATE(DESSERT)(y)]

Selected references

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