

SUBJUNCTIVE AND SUBJECT PRONOUN REALIZATION: A STUDY OF (*Yo*) *NO CREO QUE*¹

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ABSTRACT. Subjunctive mood in complement clauses is licensed under selection from certain predicates or under the scope of a modal or negation. In contexts where mood choice varies, such as the complement of a negated epistemic verb *no creer*, it introduces a contrast in interpretation. The subjunctive is thought to contribute to a shift in the modal anchoring of the embedded clause, and is consequently interpreted as indicative of a dissociation between the epistemic models of the speaker and the subject. We provide evidence that these uses also interact with pragmatic context. Given independent claims that 1) the overt realization of first person subject pronouns is contrastive and 2) it generally serves to anchor discourse to the speaker's perspective and 3) overt use is particularly frequent with epistemic verbs, we examined the interaction between negation, first person subject pronoun realization, and mood of the dependent clause for the verb *creer*. An analysis of oral speech from the *Proyecto de Habla Culta* revealed that for negative sentences (*no creo que*), *yo* is overtly realized more frequently for cases with exceptional indicative dependents than for those with canonical subjunctive dependents; there was no association with mood for affirmative uses of *creer*. These results support analyses where negation has specific scope over the contrastive subject, rather than over the epistemic clause. As a consequence, the matrix proposition remains an assertion and use of indicative complements is licensed.

Keywords: Spanish; subject pronoun; subjunctive mood; epistemic; contrastive focus; negation

RESUMEN. El subjuntivo en cláusulas completivas se permite bajo selección de ciertos predicados verbales o bajo el ámbito de negación o expresión modal. En contextos donde la selección es variable, como en los casos de los verbos epistémicos acompañados de negación (*no creo que*), el contraste de modo introduce un contraste de interpretación. Se ha propuesto que el subjuntivo contribuye a un cambio en la base modal de la cláusula subordinada, y que como consecuencia se interpreta como señal de disociación entre la perspectiva epistémica del hablante y la del sujeto. Esta investigación demuestra que estos usos también van determinados por el contexto pragmático. Dadas ciertas premisas independientes que establecen que 1) la realización de los sujetos de primera persona es contrastiva, 2) que sirve para anclar el discurso a la perspectiva del hablante, y 3) que su uso es particularmente frecuente con los verbos epistémicos, investigamos la relación entre negación, uso del pronombre de primera persona, y la selección de modo en las cláusulas complementos del verbo *creer*. Un análisis de datos del Corpus de Habla Culta del Español reveló que para las oraciones negativas (*no creo que*) aumenta la realización del sujeto en los casos del indicativo excepcional en comparación con las oraciones con uso canónico del subjuntivo, pero que en el caso de los usos afirmativos de *creer* no había tal relación. Estos resultados apoyan las perspectivas que dan ámbito directo sobre el sujeto a la negación, en lugar de sobre la cláusula epistémica. Como consecuencia, la proposición principal funciona como aserción, y el uso del indicativo queda autorizado.

Keywords: español; sujeto pronominal; modo subjuntivo; verbos epistémicos; foco contrastivo; negación

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1. Introduction

Mood plays a fundamental role in our interpretation of utterances, by expressing a perspective over the truth-value of the proposition. Traditionally, indicative is described as the default mood of assertion, whereas subjunctive is assigned a variety of meanings, including non-assertion, desire, obligation, influence, prospectivity or futurity (Rivero 1971; Bosque 1990; Quer 1998; Fábregas 2014). None of these interpretations can subsume the range of its uses. As a consequence, Quer (1998) proposes that the semantic contribution of the subjunctive is to indicate a shift in the kind of semantic model used to evaluate the truth of the proposition.

Syntactically, the subjunctive is licensed primarily under selection from certain predicates or the scope of a modal or negation. In polarity contexts such as the complement of a negated epistemic verb *no creer*, mood choice is variable and introduces contrasts in interpretation. The various syntactic and semantic factors that regulate the distribution of the subjunctive also interact with pragmatic context. We hypothesize an interaction between subject of an epistemic verb and mood of its dependent clause, given previous claims that the overt realization of first person subject pronouns generally serves to anchor the discourse to the speaker's space (Oliva & Serrano 2010) and that their use is particularly frequent with epistemic verbs (Posio 2014). Specifically, we predict that subject realization is higher with indicative dependents of negated epistemics, as the inclusion of the overt first person subject is often considered a sign of contrastive focus between the matrix and the proposition (Mayol 2010; Pesková 2013). We propose that the negation in these instances is situated higher than the matrix clause containing the epistemic verb. This results from an implicit cleft-like structure along the lines of that offered by Ridruejo (1999:3223).

This article is organized as follows. Section 2 describes the problem of negated epistemic verbs, presents our theoretical assumptions, and introduces questions about models of evaluation and subject pronoun realization. Section 3 reports a corpus study of first person instances of the epistemic verb *creer* (*(yo) no creo que* 'I don't believe that...') extracted from the Corpus del Español, and section 4 discusses our findings.

2. Background

2.1 Mood in the complements of epistemic verbs

Mood expresses a perspective over the truth-value of the proposition, signalling "what the sentence as a whole expresses about the truth of the proposition" (Terrell & Hooper 1974: 484). Indicative is the default, traditionally considered the mood of assertion, whereas subjunctive occurs mostly in subordinate clauses, selected under certain predicates or under the scope of a modal or negation,

Subjunctive under negation, the so-called polarity subjunctive (Stowell 1993), illustrates the challenge of defining the semantic contrast between indicative and subjunctive complements. In the absence of negation, the embedded complement of strongly assertive and weakly assertive predicates typically appears in indicative mood. This is the case of the epistemic verb *creer* ('to believe') (1a). Accompanied by negation (*no creer* 'not believe') the verb is classified as a non-assertive predicate and primarily selects the subjunctive (1b). The complement of *no creer* can also appear in the indicative (1c), but the choice alters the interpretation of the sentence. Without negation, the subjunctive is supposed to be ungrammatical, as in (1d) (Lleó 1979:8; Quer 1998:62; Rivero 1971:307); although Rivero does point out that *creer que* +SBJV is grammatical in some dialects, citing the examples in (2) as evidence for this. According to Takagaki (1984), the epistemic matrix verb *creer* is thought to be

invariably followed by an indicative complement when not negated, as “the speaker cannot intervene negatively in the subject’s belief in the truth of the complement” (Takagaki 1984: 253).

- (1) a. Juan cree que María está embarazada.
John believe-PRS.IND.3SG that Mary be-PRS.IND.3SG pregnant.
 ‘John believes that Mary is pregnant.’
 b. Juan no cree que María esté embarazada.
John not believe-PRS.IND.3SG that Mary be-PRS.SBJV.3SG pregnant.
 ‘John does not believe that Mary is pregnant.’
 c. Juan no cree que María está embarazada.
John not believe-PRS.IND.3SG that Mary be-PRS.IND.3SG pregnant.
 ‘John does not believe that Mary is pregnant.’
 d. %Juan cree que María esté embarazada.
John believe-PRS.IND.3SG that Mary be-PRS.SBJV.3SG pregnant.
 ‘John does not believe that Mary is pregnant.’
- (2) a. Creo que no vuelve (vuelva).
believe-PRS.IND.1SG that no return-PRS.IND.3SG (return-PRS.SBJV.3SG)
 ‘I think he/she will not return.’
 [Gili y Gaya 1961:135]
 b. Creo que Luis ame a María.
believe-PRS.IND.1SG that Luis love-PRS.SBJV.3G A Mary
 ‘I think that Luis loves Mary’
 [D’Introno 1979: 197]

The mood difference in (1b) and (1c) is described as a contrast in the speaker’s attitude. The choice of subjunctive implies a neutral attitude; that is, the speaker is simply reporting John’s belief without taking a stance on the truth of the proposition. In contrast, the use of indicative indicates that the speaker believes the proposition “that Mary is pregnant” to be true (Rivero 1971). In this way, mood choice following *no creer* conveys the speaker’s own attitude towards reality; in the case of (1c), that Mary is in fact pregnant and that John is erroneous in his belief.

2.2. The syntax of negated epistemics

Mood distinctions are not just about interpretation. Even in contexts when the speaker overtly questions the veracity of the proposition, as in (3), the syntactic context (selection under a weakly assertive predicate) dictates the use of indicative.

- (3) a. Juan cree que María está embarazada pero
Juan believe-PRS.IND.3SG that Mary be-PRS.IND.3SG pregnant but
 yo no lo creo.
I not it-ACC believe-PRS.IND.1SG.
 ‘John believes that Mary is pregnant, but I don’t believe it.’
 b. *Juan cree que María esté embarazada
Juan believe-PRS.IND.3SG that Mary be-PRS.SBJV.3SG pregnant
 (pero yo no lo creo)
but I-NOM.1SG not it-ACC think-PRS.IND.1SG.
 ‘John believes that Mary is pregnant but I don’t think so.’

Despite the surface similarities, there is evidence that the syntactic properties of indicative and subjunctive clauses differ. Indicative dependents supposedly behave more independently from their main clauses than the core-type of subjunctive dependents, such as conditionals (Rivero 1971). Torrego and Uriagereka (1993) propose that while the complements of volitionals are standard CPs, predicates with indicative dependents actually select a nominal complement. This nominal complement (which can be implicit) stands in an appositive relation to the propositional complement.

- (4) Platón dice eso, que Aristoteles lee a Socrates.
Plato say-PRS.IND.3SG that that Aristotle read-PRS.IND.3SG A Socrates
 ‘Plato says (that) that Aristotle reads Socrates.’

Torrego and Uriagereka note that indicative dependents (in contrast with subjunctive dependents) are more matrix like in that they exhibit tense independence, take secondary predicates, allow for left-peripheral elements including truth operators (*si*), left dislocated constituents, and parentheticals.

According to Torrego and Uriagereka, this structural contrast² accounts for the patterns of interpretation of matrix negation discussed in Rivero (1971), where matrix negation is ambiguous with respect to matrix or embedded interpretation for subjunctive dependents, but unambiguous for indicative dependents. Example (5a) either means that Luisa does not have such desires as indicated by the subordinate clause (i.e., to buy a dog), or that she has desires, but of the negative kind (to not buy a dog). Example (5b) can only mean that Luisa has not made a statement, not that she has issued a denial.

- (5) a. Luisa no quiere que compres un perro.
Louise not want-PRS.IND.3SG that buy-PRS.SBJV.2SG a dog
 ‘Louise doesn’t want you to buy a dog.’
 b. Luisa no dice que compraste un perro.
Louise not say-PRS.IND.3SG that buy-PST.IND.2SG a dog
 ‘Louise doesn’t say that you bought a dog.’

For Torrego and Uriagereka, this suggests that indicative dependents are islands³, such that movement of the negative operator between matrix and embedded clause is blocked.

In negated epistemic contexts, mood indeed seems to determine the opacity or transparency of the embedded domain. Negative polarity items, which crucially depend on the presence of a local negative operator, are allowed with subjunctive embedded clauses but disallowed with indicatives, as shown in (6) and (7). Rivero takes this to imply that negation has raised from the lower clause in the case of the subjunctive. For indicatives, negation originates in the matrix verb (Rivero 1971:317), and cannot license the polarity item in the lower clause (cf. 7a vs. 7c).

² See Gallego and Uriagereka (2007) for further discussion of the structural differences of indicative versus subjunctive dependents, where the latter are considered the result of a defectiveness in T and C, resulting in tense being checked by the matrix T via Multiple Agree.

³ As pointed out by an anonymous reviewer, they do not behave as islands for other extractions, however (see Collins & Postal 2014); therefore it could be that each one of the sentences defines its own polarity, rather than being islands.

- (6) a. Juan no creía que viniera nadie.
John not believe-PST.IND.3SG that come-PST.SBJV.3SG nobody
 'John didn't believe that anyone would come.'
- b. *Juan no creía que venía nadie.
John not believe-PST.IND.3SG that come-PST.IND.3SG nobody
 'John didn't believe that anyone would come.'
- (7) a. Mi hermano cree que no entiendes palabra
My brother believe-PRS.IND.3SG that not understand-PRS.IND.2SG word
 de francés.
of French.
 'My brother believes that you don't understand a word of French.'
- b. Mi hermano no cree que entiendas palabra
My brother no believe-PRS.IND.3SG that understand-PRS.SBJV.2SG word
 de francés.
of French
 'My brother doesn't believe that you understand a word of French.'
- c. *Mi hermano no cree que entiendes palabra
My brother no believe-PRS.IND.3SG that understand-PRS.IND.2SG word
 de francés.
of French
 'My brother doesn't believe that you understand a word of French.'

Takagaki (1984) points that the independent/dependent nature of the clause is also shown by the more flexible word order of the matrix

- (8) Que_{ind} viene, creo.
That come-PRS.IND.3SG believe-PRS.IND.1SG
 *Que_{subj} venga, no creo.
That come-PRS.SBJV.3SG not believe-PRS.IND.1SG
 (Takagaki 1984:252)

In sum, syntactic approaches to mood propose that subjunctive negated epistemics start out with negation in the lower clause, and that the negative operator can raise to (or be construed with) the embedded clause. The underlying structure proposed is as in (9):

- (9) Cree [que-SUBJ NEG *p*]

The representation in (9) presupposes that *creer*, by itself selects a subjunctive clause, as long as it contains negation. While these analyses can account for an interesting range of interpretive and distributional facts, it is problematic in terms of the selectional facts. Even more problematic is that these accounts do little to help us understand the meaning contributed by the mood marker.

2.3 Semantic accounts of mood alternations

What exactly is the contribution of the indicative/subjunctive distinction to the interpretation of the clause? In particular, what is the correct analysis in the case of the complements of non-assertive predicates (*dudar*, *no creer*, etc.), where choice of subjunctive has a subtle but reliable effect in meaning. The classical view holds that use of the subjunctive means that the truth of the proposition is not tied to the actual

world (Farkas 1992). It is important to note that this view arises across theoretical paradigms. Pedagogical grammars typically present the subjunctive as a ‘subjective’ mood that serves to relativize claims to the perspective of the speaker (Roca Pons 1960).

According to Farkas (1992), the shift from neutral attitude to evaluated proposition in (i.e., 1b vs. 1c) should be explained by relying on the notion of modal anchoring; that is, that the truth of a proposition must be relativized to worlds and individuals. This relates to the concept of epistemic models, which are understood as a collection of possible worlds anchored to the mental representations of a particular individual: “A model $M_E(x)$ in a context c is a set of worlds W (subset) $W_{(c)}$ associated with an individual x representing worlds compatible with what x knows” (Giannakidou 1997); where x is the individual holder of certain beliefs and $M_E(x)$ represents the contents of his or her beliefs. In this way, simple clauses such as (10) must have the epistemic model speaker $M_E(\text{speaker})$, as the proposition can only be anchored to the person communicating the information – i.e., the speaker:

- (10) María está embarazada.
Mary be-PRS.IND.3SG pregnant
 ‘Mary is pregnant.’

From this it follows that affirmative epistemics must be considered extensional predicates, as the world they introduce models the reality as perceived by the subject. That is to say, the proposition is invariably true for the particular individual to whom it is anchored; hence the only option in (1a) is an indicative rather than subjunctive complement. This notion of models can be used to explain why co-reference to a referent introduced in an embedded epistemic clause is restricted. This is shown by the discourse of a single speaker in (11):

- (11) a. Juan cree que María está embarazada.
John believe-PRS.IND.3SG that Mary be-PRS.IND.3SG pregnant
 ‘John believes that Mary is pregnant.’
 b. ...#Debería (ella) comprar una cuna.
Must-COND.IND.3SG (she-NOM.3SG) buy-INF a crib
 #She should buy a crib.

Here the null subject of the second clause cannot be anaphorically linked to the embedded subject of the initial utterance. In the initial utterance (11a) represents the particular world as extensionally anchored to $M_E(\text{Juan})$, whereas the complement is anchored to the speaker $M_E(\text{sp})$. The only way around this apparent limitation is to insert an explicit adverbial anchor, such as *con razón* or *correctamente* (‘correctly’) into the first sentence (11a) so as to shift the epistemic model away from Juan and into the domain of the speaker, by means of what Quer (1998: 78) terms an overtly introduced model.

Although the assumption that mood should be analyzed in terms of modal anchoring is the standard in current theorization, the original view that equated the subjunctive with irrealis interpretation is nowadays deemed insufficient (Fábregas 2014). The reasons are clear: the simple characterization is plagued with counterexamples, including factive emotives (*alegrar*, *lamentar*), which obligatorily

select subjunctive despite presupposing the truth of the embedded clause, and verbs of irrealis situations that select indicative (Villalta 2007; Giorgi and Pianesi 1997):

- (12) a. Me alegra que María esté
 Me-DAT.1SG make-happy-PRS.IND.3SG that Mary be-PRS.SBJV.3SG
 embarazada.
 pregnant
 ‘I’m glad that Mary is pregnant’.
 b. Soñé que María estaba embarazada.
 Dream-PST.IND.1SG that Mary be-PST.IND.3SG pregnant
 ‘I dreamt Mary was pregnant’

Indeed, as pointed out by Fábregas (2014), the class of meanings associated with the subjunctive seems too heterogeneous to form a natural semantic class. Quer (1998) proposes that the subjunctive does not have a direct contribution to meaning. Instead, he proposes, the subjunctive marks a shift in the kind of semantic model used to evaluate the truth of the proposition. In other words, the subjunctive simply indicates there are multiple evaluation models under consideration, in addition to the default world anchored to the epistemic model of the speaker (i.e., the world as the speaker knows it). For desire predicates, for example, the relevant comparison is to bouletic models relative to the desires of some individual. Non-assertive predicates (the class which includes negated epistemics) explicitly compares the default model to other belief-models.

Negating the matrix *creer* then opens the possibility of two different, indeed contrastive, epistemic models: one for the subject M_E(subj) and one for the speaker M_E(sp). This contrast is therefore communicated through mood:

- (13) *Juan no cree que María esté embarazada.*
 p = T in W_R (J)
 Where the proposition *p* is evaluated as true T in world W_R that models the reality anchored to the individual Juan.

- (14) *Juan no cree que María está embarazada.*
 p = T in W_R (Sp)
 Where the proposition *p* is evaluated as true T in world W_R that models the reality anchored to the Speaker Sp.

Quer (1998: 69) emphasizes what he sees as a difference between strong or quantificational negation (15a), which gives rise to a tri-partite structure, with the assertion of the proposition as restrictor, and non-quantificational or weak negation, where the proposition is directly under the scope of the negative operator (15b).

- | | | | |
|------|---------------------|-----------------------------------|--------------------------------------|
| (15) | a. NEG _x | [_{Restriction} ...X...] | [_{scope} Main Predication] |
| | NOT | [<i>p</i> is true] | [Juan believes that <i>p</i>] |
| | b. NEG | [_{scope} ...EX...] | |
| | NOT | [Juan believes that <i>p</i>] | [Quer 1998: 68] |

This analysis is used to explain the correlation between the inclusion of a VP anaphora conjunct with *también* ‘also’, and the mood of the embedded clause (16)⁴. With an indicative complement, the proposition is understood as being anchored to the speaker rather than the subject, thereby making the *también* redundant in this context, as the speaker has already asserted the truth of the proposition.

- (16) a. Juan no cree que María venga y yo
John not believe-PRS.IND.3SG that Mary come-PRS.SBJV.3SG and I
 lo creo también
it-ACC believe-PRS.IND.1SG also
 ‘John doesn’t believe that Mary will come and I believe the same thing (literally: it) too.’
 b. Juan no cree que María viene y yo
John not believe-PRS.IND.3SG that Mary come-PRS.IND.3SG and I
 lo creo (*también).
*it-ACC believe-PRS.IND.1SG (*too)*
 ‘John doesn’t believe that Mary will come and I believe it (*too).’
 [Rivero 1971:310-311]

Similarly, the combination of an embedded indicative dependent followed by the second conjunct, declaring this same proposition to be untrue, results in a contradiction (as illustrated for Catalan in 17).

- (17) El degà no creu [que els estudiants es
The dean not believe-PRS.IND.3SG that the students REFL
 mereixen un premi]
deserve-PRS.IND.3PL a prize
 ‘The dean does not believe that the students deserve a prize’
 #i jo tampoc no ho crec
and I neither not it believe-PRS.IND.1SG
 ‘and I do not believe it either’
 [Quer 1998:61]

Quer (1998) takes this idea of semantic ill-formedness one step further by suggesting that the use of indicative after the negated first person singular form of *creer* is in reality unacceptable (our example 1c). Quer (1998) argues that this forces the same proposition to be understood as both true and false in the same model; that is, the coincidence of matrix subject and speaker results in opposing truth-values. Giorgi (2009) similarly draws attention to the atypical nature of first person epistemics.

Nevertheless, these forms are still used by many native speakers. Ridruejo’s (1999) analysis of verbs of communication provides an alternative explanation for this contradictory subjunctive. He proposes that cases such as (18a) must actually be understood as a rejection of a previous, albeit implicit, utterance, such as (18b):

- (18) a. Yo no digo que Pedro es inteligente.
I not say-PRS.IND.1SG that Peter be-PRS.IND.3SG intelligent
 ‘I don’t say that Pedro is intelligent.’

⁴ Note that intuitions vary regarding the acceptability of (16b)

- b. Tú dices que Pedro es inteligente.
You say-PRS.IND.2SG that Peter be-PRS.IND.3SG intelligent
 'You say that Pedro is intelligent.'
 (Ridruejo 1999: 3223)

Ridruejo (1999: 3223) provides a rather intriguing suggestion: that (18a) is interpreted with contrastive focus on the subject: "Yo no soy el que dice que Pedro es inteligente" 'I am not the one who says that Pedro is intelligent'). We informally represent this analysis in (19):

- (19) $\exists x$ [x believes that *p*] & NOT (x=Speaker)

The consequence of focus extraction is that the remnant has the same structure as the grammatical third person counterpart (example 14, schematically represented in 15a).

Crucially, in this structure the embedded proposition has indicative mood, as does the affirmative counterpart (1a). Ridruejo's observation allows us to reconcile the logic of Quer's analysis of the contrast between (5) and (6), with the existence of counterexamples where *no creo* is used with the indicative.

2.4 The contribution of the overt pronoun

Importantly, for our purposes, is the inclusion the overt subject pronoun *yo* in Ridruejo's example in (18a). As a null subject language, overt subject pronouns in Spanish are generally only used to disambiguate a referent, as in (20), or to contrast referents (Fernández Ramírez 1951; RAE 1991: 421-422; Pešková 2013; Rigau 1986), as in (21).

- (20) Él/ella/usted/Juan habla checo.
He/she/you/ John speak-PRS.IND.3SG Czech
 'He/she/you/John speaks Czech.'
- (21) Juan habla checo, pero yo hablo eslovaco.
John speak-PRS.IND.3SG Czech but I speak-PRS.IND.1SG Slovak
 'John speaks Czech, but I speak Slovak.'

[Pešková 2013: 119]

Focal contexts, including questions, ellipsis, focus and clefts, render the overt realization of subject pronouns obligatory (Brucart 1987; Mayol 2010). In fact, dropping the embedded subject pronoun in (21) would lead to ungrammaticality. Beyond focus-related contexts, overt pronouns often serve as contrastive topics markers. Contrastive topics introduce alternatives, while leaving unspecified what is asserted about these alternatives; in other words, "if a property *P* holds of *a*, then other properties *P*' hold of other members of *M*" (Mayol 2010:2503; see also Vallduví & Vilkuna 1998). In this way, contrastive topics trigger an uncertainty implicature, as they convey that the speaker ignores whether the other alternatives are true or not (Mayol 2010:2506).

Contrastive use explains the observation from various corpus studies that mental state verbs generally have higher rates of subject pronoun realization (Posio 2014; Mayol 2010). Pešková (2013) found higher rates of subjects for epistemic than perception verbs in Buenos Aires Spanish. Posio (2014) compares Spanish and European Portuguese first person epistemics (*creo* vs. *acho*) confirming that *creer* has

high rates of subject pronoun realization, and particularly in the case of first person singular pronouns (Posio 2014: 8). Posio interprets the observation as evidence of a higher degree of grammaticalization of the expression in Spanish.

Oliva and Serrano (2010) examined variation in the realization of first person subject of *creer* in two Spanish corpora, the *Corpus de Lenguaje de los Medios de Comunicación de Salamanca* (MEDIASA) and the *Corpus Conversacional del Español de Canarias* (CCEC). They note an association between overt realization of *yo* and contexts related to argumentation and expression of opinion. They argue that the inclusion of *yo* shifts the interpretation of *creer* from an epistemic evidential interpretation to that of verb of opinion akin to English *I claim* (Davidson 1996: 557), a reading that is both more subjective and more contrastive. According to these authors, the use of overt *yo* places “focus on the perceptual presence of the speaker and anchors the discourse to his/her personal space” (Oliva & Serrano 2010: 1). In the following discourse fragment, the single speaker is thought to be discussing hearsay things, of which she is not fully certain:

- (22) Bueno, yo creo que hay bastantes
Well I think-PRS.IND.1SG that there be-PRS.IND.3SG enough
 ... todavía ...siguen por parte...por parte de los empresarios
still continue-PRS.IND.3PL on part on part of the businessmen
 ... reticencias a contratar a mujeres.
reluctances to contract-INF A women
 ‘Well, I think that there are enough on the part of businessmen ...who
 continue to be reluctant to hire women.’
 [MEDIASA <Var-On-281204-13:20>]

Mayol (2010: 2508) also makes reference to previous observations about the correlation between overt *yo* and mental state predicates. She speculates that this correlation reflects the speaker’s desire to set his or her own opinion apart from that of others, with which it may or may not coincide. Overt pronoun realization seems then to be a case of weak contrast. According to Mayol (2010: 2501) speakers use overt pronouns to convey ignorance or unwillingness to commit to the possibility that the predicate is true of anyone else other than the antecedent for the pronoun, as illustrated by the Catalan example in (23):

- (23) Miri, senyora, nosaltres no sabem pas res
Look-IMP.2SG madam we not know-PRS.IND.1PL NEG anything
 de cap granota.
about frog
 ‘Look, mam, we don’t know anything about a frog.’
 [Mayol 2010: 2502]

In sum, analyses of the discourse conditions associated with the realization of *yo* suggest that the use affects the interpretation of epistemic sentences. In some ways, these discussions point implicitly at a link between pronoun realization and implicit comparisons between epistemic models. In Mayol’s discussion, these refer to the speaker’s, and other potential belief-holders in weak contrast to her. In Oliva and Serrano’s, overt pronoun realization aligns with a subjective orientation to the propositional content, and subject omission with an objective orientation, that is to

say, an assertion common to all participants in the context. To our knowledge, there is no evidence on how the two phenomena interact with each other.

3. Study of *(yo) no creo que*

3.1 Hypotheses

Our goal is to answer an atypical question for studies on mood: is use of the overt first person singular *yo* a determinant in mood choice of the complement clause of the negated epistemic *creer*? Matrix subject and embedded proposition are not in a sufficiently local configuration to involve selection and, what is more, the specifier never selects the complement. Thus, in principle, the null hypothesis is that matrix subject realization and mood selection are unrelated. At the same time, across the various theoretical perspectives, the consensus is that both subject realization and mood are sensitive to context, and that both help define the parameters of the interpretation of the assertion in the embedded clause.

On one hand, indicative in the embedded proposition signals that the proposition is anchored to the epistemic model of the speaker. On the other, overt first person subjects enter into contrast with others, which signals that alternative, underspecified models are possibly available.

Ridruejo's (see also Giorgi 2009) account of first person epistemic clauses with indicative dependents leads to a reasonably straightforward prediction. The subject is interpreted with contrastive focus, in association with negation, and thus extracted out, much as in the cleft structure that serves to paraphrase it. Underlyingly, the matrix clause does not contain the negative. The strong prediction is that these sentences should always have realized subjects. If the structures represent a weaker form of contrast, as proposed by Mayol, then subject realization should be more frequent than expected, but not necessarily categorical. This analysis predicts an association between subject realization and dependent mood for negative sentences but makes no such predictions for affirmative sentences.

Extending Oliva and Serrano's view of the role of subject realization for *creo* is a bit more complicated. Note that these authors suggest that null subject use situates the proposition under a more objective perspective. Note that these authors' views do not necessarily predict a direct association between null subjects with indicative clauses, and between overt subjects with the subjunctive. Instead, they simply propose that subject realization helps anchor the discourse to the speaker perspective. This is not all that different a claim from that made by Mayol, and should likewise be construed as predicting an association with indicative, which anchors the model of evaluation to the speaker. The 'subjectivity' part simply links to the implied reference to other epistemic models. The primary difference with the more structural claim proposed by Ridruejo is that here negation is not part of the description; subject realization in general should be associated with indicative dependents for both *creo* and *no creo*.

3.2 Method

The data was extracted from Habla Culta section of the *Corpus del Español* (Davies 2002). The *Proyecto de Habla Culta* is a collection of transcriptions of oral interviews from various cities across the Hispanic world, specifically targeting educated urban speakers (Lope Blanch 1969). To find sentences with first person singular of the epistemic verb *creer* followed by an embedded clause, we conducted an automated search for the string "creo que" ('I believe that'). This search yielded a

total of 3411 utterances with sentential complements, which were then classified according to (i) status of subject pronoun (overt *yo* vs. null subject), and (ii) presence and placement of negation (matrix negation vs. embedded negation), and (iii) mood of the verb in complement clause. Further analyses were conducted for the two atypical mood combinations (*no creo que* + indicative and *creo que* + subjunctive).

3.3 Results

Our goal was to examine the potential association between the matrix subject realization, and mood selection in the embedded clause. In other words, is the distribution of overt *yo* associated the same or different in epistemic clauses with indicative and subjunctive dependents? Is this true of both affirmative and negative clauses?

Our first step was to examine the distribution of negation of an epistemic verb and mood of its dependent clause, to assess the generalization that links *creer* with indicative and *no creer* with subjunctive. In our data we found instances of all four combinations, but their frequencies lend support to the descriptive generalizations.

In Table 1 we can see that although mood selection is not actually categorical (both moods surfaced in each type of clause), the bias for the canonical associations is quite strong. A small but reliable number of atypical indicatives under *no creer*, of the sort discussed by Quer and Ridruejo. To our surprise, we found a number of instances of atypical subjunctive embedded under affirmative *creer*.

Table 1. Number of indicative and subjunctive clauses embedded under matrix epistemic *creer*

	Indicative	Subjunctive	Totals
<i>creer</i>	3142	27	3169
<i>no creer</i>	33	209	242

We then cross-tabulated the use of indicative versus subjunctive against type of subject (*yo* versus null subject), separately for negated and non-negated epistemics, for obvious reasons.

First, consider affirmative *creo que*. As expected, most of the clauses were indicative, with a very small proportion (only .9%) containing exceptional subjunctive dependents (see examples 24 and 25) Subjects were overtly realized in approximately 45% of all *creer que* clauses.

Table 2. Number of indicative and subjunctive clauses following non-negated epistemic matrix *creo que* classified according to the type of subject

	Indicative	Subjunctive	Totals
Overt <i>yo</i>	1415	8	1423
Null subject	1728	19	1747
	3143	27	3169

The overall patterns of matrix subject use are comparable across the two types of dependent clauses, classified by mood. A chi-square test indicates that subject

realization is independent of mood choice, in sentences without matrix negation ($\chi^2=1.979$, $p=0.159$).

The scarcity of subjunctive use in non-negated *creer* accords with the bulk of the literature on Spanish epistemic verbs, which states that subjunctive following *creo que* is considered ungrammatical in almost all varieties (Lleó 1979:8; Quer 1998:62; Rivero 1971:307) even when the speaker explicitly contradicts the embedded proposition. Nonetheless the examples that appear, although under specific conditions, merit a closer examination. Many instances occurred when the topic in the interviews veered towards political speculation. These instances seemed to convey that the speaker was flagging a clearly hypothetical situation:

- (24) Y creo que esto pueda ser una
And believe-PRS.IND.1SG that this can-PRS.SBJV.3SG be-INF a
 realidad
reality
 'And I believe that this may become a reality'
 [Habla Culta: Bogotá: M1]

- (25) Yo creo que esto pueda ser
I believe-PRS.IND.1SG that this can-PRS.SBJV.3SG be-INF
 positivo, si es que puedo conseguir algo que
positive, if be-PRS.IND.3SG that can-PRS.IND.1SG get something that
 me interese
me interest-PRS.SBJV.3SG
 'I think that this may be positive, if I'm able to find something that interests me.'
 [Habla Culta: La Paz: M25]

In the above examples (24 and 25), the speaker clearly expresses a lack of commitment towards the truth of the proposition. Indeed, the embedded position seems even counterfactual, unlikely to ever be fulfilled. It can be paraphrased as something like this: 'the situation is not positive/feasible, but let's look at it optimistically...'. Note that (25) contains both a modal verb and was followed by a conditional clause. All instances of exceptional subjunctive either had modal verbs (*poder/deber*), were accompanied by a conditional (explicit or implicit), or both. Interestingly, both imperfect and present subjunctive were used (17 vs. 10 tokens of each). This brings to mind the interchangeability of the imperfective subjunctive and conditional tenses in many dialects, as both are able to express irrealis situations with regard to "subjective expectations, predictions and intentions" (Silva-Corvalán 1982: 92). Fábregas (2014:40) also points out that *quisiera*, *debiera* and *podiera* can appear in subjunctive main clauses under certain conditions, thereby suggesting that these forms may be stored idiomatic expressions given their non-compositional meaning. As such, these instances of exceptional subjunctive appear comparable to the use of English epistemic *would/could/should*.

- (26) Yo creo que pudiera ser una gran
I believe-PRS.IND.1SG that can-PST.SBJV.3SG be-INF a great
 idea, que pudiera servir al mismo tiempo para...
idea that can-PST.SBJV.3SG serve-INF at-the same time for
 ‘I believe that it could be a great idea, that could also be used at the same time
 for’
 [Habla Culta: Havana: M47]
- (27) Yo creo que esto debiera hacerse en una
I believe-PRS.IND.1SG that this must-PST.SBJV.3SG become in a
 escala nacional individualmente también.
scale national individually also.
 ‘I believe that this should be on a national as well as individual scale’
 [Habla Culta: Santiago: M23]
- (28) Me pesa un poco, pero no me pesa
me.DAT regret-PRS.IND.3SG a little but no me.DAT regret-PRS.IND.3SG
 tanto, porque creo que yo hubiera
so-much because believe-PRS.IND.1SG that I have-PST.SBJV.1SG
 sido un mal abogado, no tengo capacidad lo suficientemente
be-PTCP a bad lawyer not have-PRS.IND.1SG capacity it enough
 polémica
argumentative
 ‘I regret it a bit, but I don’t regret it that much, because I believe that I would
 have been a bad lawyer, I’m not argumentative enough’
 [Habla Culta: Caracas: M11]

We now turn to the analysis of the distribution of indicative versus subjunctive following the negated epistemic matrix *no creo que*. Table 3 again reports use of the overt subject pronoun *yo* in the matrix clause in reference to mood selection in the complement, this time exclusively for utterances with matrix negation.

Table 3. Number of indicative and subjunctive clauses following negated epistemic matrix *creo que* classified according to the type of subject

	Indicative	Subjunctive	Totals
overt <i>yo</i>	23	48	71
null subject	9	161	170
	32	209	241

Interestingly, while in subjunctive clauses most sentences have null subjects, as is generally the case in null subject languages, this is not true for the atypical indicative complements of *no creo que*. The frequency of overt subjects here is much higher than expected, given what was observed in the absence of matrix negation, and in direct comparison with the canonical *no creer que* + subjunctive. Indeed, 72% of the instances of *no creer* accompanied by an indicative dependent had a realized subject, as opposed to 23% of the cases with subjunctive dependents. The asymmetry in the

distribution of overt *yo* across complement types was highly significant ($\chi^2 = 29.632$, $p < 0.001$).

Bearing in mind Ridruejo's suggestion that atypical indicative complements of *no creo que* express a contrast in the epistemic models, we examined those cases more closely. In a number of the cases of *yo no creo* with indicative complements, the context sets an overt contrast between the first person and an unspecified set of individuals in disagreement with the speaker perspective. Consider the examples below, where both the context of the utterance in the recorded discourse is given, together with a gloss of the target construction:

- (29) a. Enc. - De manera que a ustedes los une el amor a Italia pero ¿qué en particular de Italia te gusta a ti?

Inf.: - Bueno a mí me gusta Italia pero **yo no creo que esa es la parte de Europa que más me gusta.**

Enc. - ¿No? ah, bueno.

Inf. - Yo creo que... la [que más] parte que más me gusta es..., bueno de lo que he visto ahora, es Francia, París, París, o sea, porque es lo único... lo más que conozco de... Y me encantaría poder pasear por todo Francia ¿no?

[Habla Culta: San Juan (PR) M3]

Int: So you, you are united by your love of Italy, but what is it that you like about Italy in particular?

Ans: Well, me, I like Italy, but I do not believe that that is the part of Europe I like the most.

Int: No? Okay.

Ans: I believe that... the part that I like the most is... well, from what I've seen so far, is France, Paris, Paris, or rather, because it is the only one... the one I know most about... And I would love to be able to travel throughout France, no?'

b. but *yo no creo* *que esa es* *la parte de*
but I not believe-PRS.IND.1SG that that be-PRS.IND.3SG the part of
Europa que más me gusta.

Europe that most DAT.1SG please-PRS.IND.3SG

'but I don't believe that that is the part of Europe I like the most.'

- (30) a. Enc. - ¿Por qué sería que él declaró así siendo ahijado de él?

Inf.: Parece, parece que... que... lo cogieron ¿no? O sea, él originalmente..., es más, este, yo, yo no sé, no, no, no, **yo no creo que ahí no hubo amenazas, ni nada...**

[Habla Culta: San Juan (PR) M7]

'Int: Why would it be that he declared himself to be his protégé?

Ans: It seems, it seems that... that... they took him in, no? Or rather, he originally..., what's more, this, I, I, don't know, no, no, no, I do not believe that there were no threats there, or anything...'

b. Yo no creo que ahí no hubo amenazas,
I not believe-PRS.IND.1SG that there not there be-PST.IND.3SG threats
 ni nada.
nor nothing
 ‘I don’t believe there were threats there or anything.’

- (31) Inf. - ... al rendir los exámenes. La mujer tiene las mismas posibilidades y tiene los mismos... la misma tabulación, en el mismo... pasa por los mismos... llamemos, exámenes. **Yo no creo que a una mujer le van a preguntar diferente que al hombre**; lo mismo, las mismas materias.
 [Habla Culta: Santiago: M29]

‘Ans: ... on doing well in exams. Women have the same possibilities and have the same... the same tabulation, in the same... they pass through the same... let’s call them exams. I do not believe that they are going to ask a woman differently to a man; the same, the same material.’

b. Yo no creo que a una mujer le van
I no believe-PRS.IND.1SG that to a woman DAT.3SG go-PRS.IND.3PL
 a preguntar diferente que al hombre;
to ask differently than to-the man
 ‘I don’t believe they are going to ask a woman differently than a man;’

In these cases, the speaker seems to explicitly recognize there are those who believe the proposition to be true, while indicating that he or she is not one these people.

Uses of overt subjects of *no creer* with the canonical subjunctive seemed to be less marked. The examples below seem to primarily convey uncertainty on the part of the speaker, or a reluctance to become invested in the discussion at hand, rather than a contrast with alternative opinions.

- (32) a. Pero yo una vez recuerdo, en las fraternidades que son de Puerto Rico, hubo un espectáculo a beneficio de la fraternidad y vi que [uno, en uno de] uno de los luchadores se ponía unas capsulitas como de un respeto el derecho de la gente que cree que eso es... verídico, que eso es cierto, y **yo no creo que eso sea cierto**.
 [Habla Culta: San Juan (PR) M11]

‘But I once remember, in the fraternities of Puerto Rico, there was a spectacle on behalf of the fraternity and I saw that (one, on one of) one of the fighters put on little capsules as if out of respect for the right of the people who believe that that is... true, that is true, and I don’t believe that that is true.’

b. la gente que cree... que eso es cierto, y
the people that think-PRS.IND.3SG that that be-PRS.IND.3SG true and
 yo no creo que eso sea cierto
I not believe-PRS.IND.1SG that that be-PRS.SBJV.3SG true
 ‘the people who believe... that that is true, and I don’t believe that that is true’

- (33) a. Además, nosotros tenemos un problema de minifundio muy grande. Se ha discutido muchas veces, se ha hablado mucho de la Reforma Agraria, y **yo no creo que la Reforma Agraria sea lo que el país necesita.**

[Habla Culta: Bogotá: M10]

‘Also, we have a very large problem of smallholdings. It has been argued many times, and people have spoken a lot about Agrarian Reform, and I do not believe that Agrarian Reform is what the country needs.’

- b. yo no creo que la Reforma Agraria sea
I not believe-PRS.IND.1SG that the Reform Agrarian be-PRS.SBJV.3SG
 lo que el país necesita
that which the country need-PRS.IND.3SG
 ‘I don’t believe that Agrarian Reform is what the country needs’

We also observed some instances where the interviewer used the subjunctive when attributing a given opinion to the person being interviewed. In these cases, subjunctive use seems to cautiously limit the assertion, minimizing the possibility of causing offense.

- (34) a. Enc. - Pero, de todos modos, se sufre con una vocación dividida, ¿no?
 Inf.b - Claro, sí, hasta que se termina por... claro, uno se va aplacando... cada vez más resignado.
 Enc. - **Pero yo no creo que usted esté resignado.**
 Inf.b - No sé.

[Habla Culta: Buenos Aires: M9 A]

‘Int: But, in any case, one suffers with a divided vocation, no?
 Ans: Of course, yes, until one ends by... of course, one goes placating... more and more resigned.
 Int: But I do not believe that you are resigned.
 Ans: I don’t know.’

- b. Pero yo no creo que usted esté
But I no believe-PRS.IND.1SG that 2SG.NOM(formal) be-PRS.SBJV.3SG
 resignado
resign-PTCP
 ‘But I don’t believe that you are resigned.’

4. Concluding remarks

Our analysis explored a potential association between the expression of the subject pronoun with the epistemic matrix *no creo que* and the selection of an indicative complement. We considered an explicit contrast between negated and the non-negated *creo que*, and observed that subject realization was linked to mood only in negative contexts. We proposed, following earlier insights from the literature, that in instances where the indicative mood was selected over the subjunctive, a clearly contrastive reading was intended by the speaker (as discussed in reference to examples 29-31). This observation lends novel support for the view that mood is not deterministically governed by individual verbs, but rather is the result of a complex interaction between syntax, semantics and context. In this case, the higher frequency of subject realization

with *creo que* fits in with the various claims that the overt subject pronoun affects the interpretation of such epistemic sentences by increasing their subjectivity (Oliva & Serrano 2010; Posio 2014) and contrastiveness (Mayol 2010; Pesková 2013). The parallel observation that mood and first person pronoun realization were unrelated in the case of the affirmative epistemic sentences allows us to take this observation one step further. It provides a clear indication that *yo* is not a direct determinant in mood selection, but is rather contextually dependent, as predicted by Ridruejo's proposal (Ridruejo 1999: 3223), which suggested that the construction *yo no creo que* should be analysed as a type of cleft structure *yo no soy el que cree que*. The key property of this analysis is that the overt subject pronoun is effectively extracted out of the epistemic clause and the negation has direct scope over it, rather than over the whole epistemic clause. In this way, the embedded proposition is fully asserted: there is no negative raising, as the negative operator originates in the highest position, and the subjunctive mood is not triggered (Rivero 1971; Reider 1990).

We would like to add a word of caution, however. We set out to explore a specific line of analysis about the first person exceptional indicatives, which attributes to them a cleft-like structure (*no soy yo el que cree que ...*). This implicitly predicts that there is contrastive focus on the matrix subject position, which should lead to the expectation that subject *yo* would be realized uniformly in these context. This is not what our data shows. The alternative to this implicit cleft analysis is one where the overt subject signals a shift in the aboutness topic (Jimenez-Fernandez 2015). While it is not possible to systematically tease apart the two types (contrastive focus and contrastive topics) in a corpus study such as ours, the data is compatible with the view that the overt subject entails shift in perspective rather than contrastive focus. Consider again examples (29-31): from talking about what are the common views or opinions of others, the speakers seek to introduce their own perspectives and opinions. More work on the nature of contrastive topics is needed to complete the picture sketched in this article.

Finally, we note that the perspective we have pursued here is in accordance with proposals that indicative complements in fact select an (albeit implicit) nominal complement, which stands in apposition to the independent proposition:

- (35) *yo no soy el que cree eso, que María*
 I not be-PRS.IND.1SG he that believe-PRS.IND.3SG that that Mary
 está embarazada
 be-PRS.IND.3SG pregnant
 'I'm not the one who says that, that Mary is pregnant.'

In this way, the truth-value of the embedded proposition remains intact. This allows us to reconcile the exceptional use of indicative in negated epistemics with Quer's (1998) and Giannakidou's (1997) perspectives on epistemic models. That is, despite the apparent semantic clash, a deeper analysis reveals that, with the aid of the overtly expressed subject pronoun, the speaker is simultaneously able to express disbelief and yet assert the proposition in accordance with his or her epistemic model, $M_E(\text{sp})$ without entering into a contradiction.

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