The syntax of answers to negative questions in Formosan languages

The purposes of this paper are two-fold: (i) the prediction regarding the syntax of negation, deducing from the discrepancies of the two answering systems, the truth-based system and the polarity-based system, as argued by Holmberg (2013a, b and 2016), cannot apply to the Formosan languages in Taiwan, and (ii) the answers of the Formosan languages to negative yes-no questions, displaying high or middle negation other than low negation, can be explained under mechanisms such as copy, merge, and delete (Holmberg and Wu 2016).

Based on the hypothesis that the choice of answering system in a language depends on the syntax of polarity, including the syntax of negation, Holmberg (2013a, b, 2016) proposes that languages with a consistently truth-based system like Thai only have a low negation, languages with a consistently polarity-based system like Swedish only have middle or high negation, while languages with a mix are like English in having variation between a high and a low negation. For instance, the question in (1Q) normally expresses the expectation that John is not coming. For many speakers of English, the answer yes in (1A1) expresses the confirmation that John is not coming, resembling the truth-based system. On the other hand, the answer no in (1A2) similarly conveys affirmation that John is not coming, resembling the polarity-based system. The contrast is considered as negative neutralization by Kramer and Rawlins (2011).

(1) Q: Is John not coming?
   A1: Yes. (‘John is not coming.’)   A2: No. (‘John is not coming.’)

Holmberg (2013a, b, 2016) approaches the negative neutralization through positioning different types of negative words. The negation not in (1Q) and (1A1) is positioned within VP, defined as low negation in (2b). The positive particle yes sets the unvalued polarity (uPol) in IP as being positive without being affected by the low negation in VP. The IP of the answer in (2b) can be elided because it is mutually entailed with the IP of the question in (2a) (Merchant 2001). Regarding the polarity-based system answer in (1A2), the negation not is located at a middle position higher than VP within IP in (3a). The unvalued uPol is set by negative particle no as being a negative polarity, which does not conflict with the middle negation as in (3b). The IP of the answer in (3b) can be elided due to its mutual entailment with the IP of the question in (3a).

(2) a. [CP Is, uPol Foc [IP John [is, uPol] [VP not coming]]]
   b. [CP Yes, +Pol Foc [IP John [is, +Pol] [VP not coming]]]

(3) a. [CP Is, uPol Foc [IP John [is, uPol][not [VP coming]]]]
   b. [CP [No, -Pol] Foc [IP John [is, -Pol][not [VP coming]]]]

In Holmberg (2016), Austronesian languages such as Malagasy, Mualang, and Mwotlap are reported to follow the truth-based system, whereas Maori and Rapanui are classified as the polarity-based system. However, no detailed discussions or data have been provided to support this parametric dimension. With this, we survey Formosan languages, including Paiwan ((4)), Puyuma ((5)), Bunun, and Amis. Their answering system uses positive particle to “agree” the proposition of the question and negative particle to “disagree”, known as the ‘truth-based system’ or the ‘agree/disagree system’ (Kuno 1973, etc.). Further, the sentences after the positive particles can be omitted in (4A1, 5A1), whereas those after the negative particles cannot in (4A2, 5A2).

(4) Q: inika na-k-em-an ti cemdas

   NEG PRF-eat-AF-eat NOM Cemdas

   ‘Has Cemdas not eaten yet?’

   A1: ui, (inika na-k-em-an ti cemdas.)
yes  NEG   PRF-eat-AF-eat   NOM  Cemdas
‘Yes. (She has not eaten yet.)’

A2: ini, *(na- k-em-an-anga   ti    cemdas.)
no  PRF-eat-AF-eat-already   NOM  Cemdas
‘No. She has already eaten.’

(5) Q: ’azi  m-ekan   i  asin?   [Puyuma]
NEG  AF-eat   NOM  Asin
‘Has Asin not eaten yet?’

A1: ai, *(’azi  m-ekan   i  asin.
yes  NEG  AF-eat   NOM  Asin
‘Yes. (He has not eaten.)’

A2: ’azi, *(m-ekan  lra   i  asin.)
NEG  AF-eat   ASP   NOM  Asin
‘No. He has eaten.’

Given that the answering system of these languages belongs to the truth-based system, Holmberg’s study predicts that the negation should be in a low position within VP. This is contradictory to the fact that negation in the Formosan languages is normally in a higher position than VP. (The Paiwan case in (4) will be taken as an example.) To resolve this conflict, we propose that in line with Holmberg and Wu (2016), the syntactic structure of a yes-no question involves a C with an open polarity variable [+/- Pol], being responsible for inquiring whether the addressee agrees or disagrees the following proposition as in (6Q). The negative inika ‘not’ within PredP sets the value of the polarity head of the proposition (PolP) as a negative [-Pol].

The derivation of the agreeing answer (6A1) involves four steps: (i) Copy the PolP of the question; (ii) merge a focus feature Foc with PolP and merge [ui [+Pol]] with the FocP; (iii) the [+Pol] in the SpecFocP applies to the [-Pol] valued feature of the PolP, yielding [-Pol], so the value of Pol remains [-Pol]; (iv) the PolP of the answer is identical with the PolP of the question, and can therefore be deleted. The focused feature is spelled out as ui ‘yes’, optionally followed by a spelled out PolP.

(6) Q: [CFT [+/- Pol] [PolP  [-Pol] [PredP inika [PredP na-k-em-an ti Cemdas ]]]?   [Paiwan]
‘Has Cemdas not eaten yet?’

A1: [FocP [ui, +Pol] [Foc  Foc  [PolP  [-Pol] [PredP inika [PredP na-k-em-an ti Cemdas ]]]]
A2: [FocP [ini, -Pol] [Foc  Foc  [PolP  [+Pol] [PredP na-k-em-an ti Cemdas ]]]]

The derivation of the disagreeing answer (6A2) involves five steps: (i) Copy the PolP of the question; (ii) merge a focus feature with PolP and merge [ini[-Pol]] with the FocP; (iii) the [-Pol] feature in the SpecFocP applies to the [-Pol] feature of PolP. By the logic of negation, applying [-Pol] to [-Pol] yields [+Pol], so the value of the head of PolP comes out as [+]; (iv) the [+]-valued Pol must agree with the PredP, i.e. the [+]-valued Pol must be reflected (overtly signaled) in the PredP as na-k-em-an ‘eat’; (v) the PolP of the answer is not identical with the PolP of the question and can therefore not be deleted. The focused polarity feature is spelled out as ini ‘not’, followed by a spelled out PolP.

This study concludes that the answering system of the Formosan languages investigated follows the truth-based system and that the prediction made by Holmberg (2016) regarding the low negation in the truth-based answering system needs to be revised along the line of Holmberg and Wu’s (2016) copying, merging, and deleting approach.

References