This study aims to solve a scope puzzle between NEG and VP-coordination (VP-C) (1) and Right Node Raising (RNR) (2) in Japanese, through investigating the distribution of Negative Concord Items (NCI) in VP-C/RNR. These two different constructions look quite similar, but I show that they are very different with regard to NEG. My aim is twofold: (i) I propose that in VP-C, NEG is interpreted only in the second conjunct, while in RNR, NEG exists in each conjunct in LF; (ii) I argue that XP-sika has a prosodic constraint that requires it stay in the same Focus Intonation (FI) domain.

(1) Taro-ga ringo-o tabe-te Hanako-ga koohi-o nom-anakat-ta.
   T.-Nom apple-Acc eat-& H.-Nom coffee-Acc drink-Neg-Past
   a. ok[Vp1 ∧ ¬Vp2: [Vp1 Taro ate an apple] and [Vp2 Hanako didn’t drink coffee].
   b. *¬Vp1 ∧ ¬Vp2: [Vp1 Taro didn’t eat an apple] and [Vp2 Hanako didn’t drink coffee].
   c. *¬Vp1 ∧ Vp2: [Vp1 Taro didn’t eat an apple] and [Vp2 Hanako drank coffee]

In (1), VPs are coordinated (Takano 2004) and NEG appears to the right of the second verb. On the surface, it seems that NEG scopes over the whole VP-C: ¬(Vp1 ∧ Vp2). Kato (2007) claims that there are three logically imaginable interpretations in (1): (1a-c). However, it is only (1a) (Vp1 ∧ ¬Vp2) that is possible. The unavailability of (1b/c) indicates that NEG on the second verb cannot appear above the VP-C: Instead, I propose that in Japanese, VP can be coordinated with NegP (or VP with a negative affix) (3). Unlike NPs in English that are licensed in interrogatives/conditionals, XP-sika can never appear without clausemate NEG (4): Kuno (2008, 2011) argues that NCIs are different from NPs, and they are licensed via agreement of [neg] features with NEG. The prediction is borne out that (5)/(6) are ungrammatical, where the NCI in VP1 remains unlicensed, as schematically illustrated in (7).

(3) VP-C: [TP[[Vp Taro-Nom apple-Acc eat] & [NegP(VP) Hanako-Nom coffee-Acc drink-Neg]]-Past]

   T.-except come-Past Q/Cond... T.-except come-Neg-Past

   T.-except apple-Acc eat-& H.-except banana-Acc eat-Neg-Past
   Intended: ‘Only Taro ate apples and only Hanako ate bananas.’

   T.-Nom apple-except eat-& H.-Nom banana-except eat-Neg(-Cl)-Past(-Decl)
   Intended: ‘Taro ate only apples and Hanako ate only bananas.’

Interestingly, RNR (8)/(9), which are minimally different from VP-C (5)/(6), are totally grammatical. It has been observed that NEG cannot take distributive scope into each conjunct when it is interpreted over the whole &P, as in (10). In (2), it is only (2b) (¬S1 ∧ ¬S2) that is available; hence I argue that in RNR, NEG exists within each conjunct, unlike in VP-C. The schematic representation of (8)/(9) is (11), in which XP-sikas are syntactically licensed within each conjunct, unlike in VP-C (7). It has been observed that XP-sika must be in one-to-one correspondence with NEG (12) (Kato 1985). If there is only one NEG in LF, then it is not obvious why (8)/(9) are grammatical though there are two XP-sikas. Given these observations, it is plausible to conclude that NEG exists within each conjunct in RNR, which licenses XP-sika inside each conjunct.

(8) Taro-sika ringo-o (sosite) Hanako-sika banana-o tabe-nakat-ta. (cf.(5))
   T.-except apple-Acc & H.-except banana-Acc eat-Neg-Past
   ‘Only Taro ate apples and only Hanako ate bananas.’

(9) Taro-ga ringo-sika (sosite) Hanako-ga banana-sika tabe-nakat-ta (cf.(6))
T.-Nom apple-except & H.-Nom banana-except eat-Neg-Past
‘Taro ate only apples and Hanako ate only bananas.’

(10) *John did\[\text{[XP want anything]}\] and \[\text{[XP blame anyone]}\]. *(\neg\text{XP1} \land \neg\text{XP2}) (Yoon 1994)

(11) RNR: \[\text{[\ldots NCI_{1\text{[neg]}}, \text{V NEG}_{\text{[neg]}T}] \land [\ldots NCI_{2\text{[neg]}}, \text{V NEG}_{\text{[neg]}T}]\] (irrelevant details omitted)

(12) *Taro-sika ringo-sika tabe-nakat-ta. Intended: ‘Only Taro ate only apples.’

T.-except apple-except eat-Neg-Past

Next we turn to discussions on the prosodic constraint on XP-sika, which further support the proposals on structural differences between VP-C and RNR with NEG in (3)/(11). Based on her perception study, Hirotani (2005) found that (13b) is much less acceptable than (13a), where XP-sika is in the same Major Phrase (MaP) with NEG. I partially agree with her in that XP-sika phonologically requires NEG in some domain, but I doubt whether it must be a single MaP. Her data involves total reset of F0 at the right edge of MaPs in (13). This ignores declination of the pitch contour (Kubo\-zono 1993), which continues beyond MaP boundaries (or Intonational Phrase (IP) in Kawahara & Shinya 2008:K&S).

(13) a. Shared: (MaP John-wa) (MaP rokku-sika konsaato-de utaw-anakat-ta)

b. Separate: (MaP John-wa) (MaP rokku-sika) (MaP konsaato-de utaw-anakat-ta)

cf. MaP = a domain for downstep (or cataphasis) resetting (Pierrehumbert & Beckman 1988).

I argue instead, that the prosodic domain for XP-sika licensing is defined by FI (14), along with Ishihara (2007). In English RNR, F0 is subject to declination, which works as a phonological cue to signal hearers that there is some missing material in the right edge of the first conjunct (Fé\-ry & Hartmann 2005). The observations in K&S indicate that Japanese RNR also involves declination of the F0 to the end of the whole sentence. Given these discussions, I show, compared to declarative RNR in K&S, that RNR with XP-sika and NEG involve the following two phonetic cues of FI (14): (i) A focal F0-rise on the first focused XP-sika, which is followed by (ii) the post-focal F0-downtrend (deaccenting) and the reset at NEG. Although banana-sika in the second conjunct (15b) also bears a focal stress, the F0 following the ringo-sika, remains significantly lower than that of declarative RNR. As in (15b), the focal F0-rise on ringo-sika creates FI and deaccenting continues to nakat in the second conjunct, which makes both ringo-sika/banana-sika be in the same FI domain with phonologically realized NEG (15b).

(14) Phonetic cues of Focus Intonation (FI: Ishihara 2002, 2007):

a. Focal F0-rise on the focused phrase (i.e. XP-sika)

b. Post-focal F0-downtrend (deaccenting) and the reset after the domain (i.e. after NEG)

(15) a. Narrow Syntax: \[\text{[\ldots NCI_{1\text{[neg]}}, \text{V NEG}_{\text{[neg]}T-C}] \land [\ldots NCI_{2\text{[neg]}}, \text{V NEG}_{\text{[neg]}T-C}]\] \[\uparrow\uparrow\] agree! \[\uparrow\uparrow\] agree!

b. Prosody (e.g. (9)): ([\text{IP Taro-ga ringo-sika}) (\text{IP Hanako-ga banana-sika}) tabe-nakat-ta)

Although K&S shows that there is a MaP/IP boundary between each conjunct, the domain created by FI is independent from MaP/IP boundaries (Ishihara 2007). I conclude that even after the ellipsis of NEG in the first conjunct of RNR, XP-sika satisfies the prosodic requirement as long as it is in the same FI with NEG in the second conjunct (15b). There is a further consequence: That XP-sika must be in the same FI with NEG entails that there must always be a phonologically overt NEG with XP-sika. This explains why XP-sika NCIs cannot be licensed as an elliptical answer (16), which is one of the diagnostics of NCIs (Vald*duvi 1994) (cf. wh-mo NCIs without such prosodic constraint (17)).

(16) XP-sika Q: Dare-o mi-ta no? A: *Taro-sika \[\text{mi-nakat-ta}\].

who-Acc see-Past Q Taro-except see(-C)-Neg-Past(-Decl)

(17) wh-mo Q: Nani-o mi-ta no? A: \[\text{on}^{\text{nani-mo}} \text{mi-nakat-ta}\].

what-Acc see-Past Q anything see(-C)-Neg-Past(-Decl)

‘What did you see?’ ‘Nothing.’ (Watanabe2004/Tieu&Kang2014)

To sum up, I have shown that two types of &P; VP-C and RNR are very different with regard to NEG. As correctly predicted by the proposed positions of NEG in VP-C (3) and RNR (11), VP-C with NCIs becomes ungrammatical since the NCI in the first conjunct remain unlicensed (7). On the other hand in RNR, XP-sika is licensed in each conjunct, satisfying the prosodic requirement as well in (15).