

Introduction. Echo questions (EQs) are a type of interrogative clauses that require a previously uttered sentence as an antecedent and (partially) repeat (“echo”) it to convey a question asking for a confirmation or repetition of what has been said (cf. Banfield 1982; Noh 1995; Dayal 1996, 2016; Artstein 2002; Sudo 2010; Beck & Reis 2018; a.o.). While there are few studies that have been analyzed the semantics of EQs, the predominant view (which are mainly built upon the most-studied Indo-European languages like English) treats EQs to be a completely independent and different construction from ordinary interrogative clauses (o-INTs) and assumes echoed *wh*-expressions as denoting a different semantic object than non-echoed *wh*-expressions, mainly due to the observation that echoed *wh*-expressions have special prosodic features (such as higher amplitude) and do not undergo *wh*-movement, unlike *wh*-expressions in o-INTs (e.g., Dayal 1996; Sudo 2010; Beck & Reis 2018). Thus, Dayal (1996) and Sudo (2010) have proposed that EQs have a phonologically silent operator that triggers the EQ reading, and Artstein (2002) and Beck & Reis (2018) have proposed a focus semantics approach that the echoed expressions crucially induces the EQ reading. However, I argue that these existing approaches do not properly capture the properties of Korean EQs and propose an alternative analysis.

Properties of Korean EQs. Korean is an SOV language that requires a clause-type marker in every clause; clause-type markers indicate the type and the speech-level (register) of a clause (Sohn 2020). (1) exemplifies a declarative clause with the plain-level declarative clause-type marker *ta*, while (2) exemplifies a *wh*-interrogative clause with the plain-level interrogative clause-type marker *ni*.

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| (1) Mina-ka sathang-ul sa-ss-*(ta).
Mina-NOM candy-ACC buy-PST-DEC
'Mina bought candy.' | (2) Mina-ka mwue-lul sa-ss-*(ni)?
Mina-NOM what-ACC buy-PST-INT
'What did Mina buy?' |
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Except for the existence of a *wh*-expression in (2), the only morpho-syntactic difference between Korean declarative and interrogative clauses is the clause-type marker; the word order is the same and the *wh*-expression ‘what’ is not moved. Similarly, Korean EQs have the same word order as ordinary clauses like (1-2) and what uniquely characterize EQs are the clause-type marker *tako* and the high rising intonation (↑), as exemplified in (3-b), with its declarative antecedent in (3-a).

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| (3) a. Mina-ka sathang-ul sa-ss-ta.
Mina-NOM candy-ACC buy-PST-DEC
'Mina bought candy.' | b. Mina-ka mwue-lul sa-ss- tako ↑?
Mina-NOM what-ACC buy-PST-EQ
'Mina bought what?' |
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In Korean, EQs are only distinguished from o-INTs by the marker *tako* and the high rising intonation. If either of the marker or the intonation is missing, the clause can never be interpreted as an EQ. Moreover, echoed *wh*-expressions are morpho-syntactically the same as non-echoed *wh*-expressions in o-INTs; *wh*-expressions with a higher amplitude do not necessarily perceived as echoed *wh*-expressions (Jun & Oh 1996).

Proposal. Since both the marker *tako* and the high rising intonation is necessary in realizing EQs, I assume *tako*↑ as the monomorphemic EQ clause-type marker and the functional head of the projection TyP right above the CP. Also, I treat echoed *wh*-expressions denoting the same semantic object as non-echoed ones (existentially bound variables, following Karttunen (1977)). I propose that Korean EQs and o-INTs both denote sets of propositions (sets of possible answers, following Hamblin (1973) and Karttunen (1977)) and have the same morpho-syntactic and semantic contents up to the CP level. Both the EQ marker *tako*↑ and the o-INT marker *ni* are associated with a set formation operation, but *tako*↑ adds a pragmatic content—a presupposition that there is at least one proposition in the set, i.e., one answer, that has already been conveyed in the discourse. (4-b) is the logical translation of the o-INT (2), with the logical translation of the o-INT marker *ni* in (4-a). (5-b) is the logical translation of the EQ (3-b), with the logical translation of the EQ marker *tako*↑ in (5-a). The presuppositional content of the EQ marker *tako*↑ is highlighted in bold.

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| (4) a. $\llbracket ni \rrbracket \rightsquigarrow \lambda Q_{\langle st, t \rangle} \lambda p_{\langle st \rangle} \cdot Q(p)$
b. $\llbracket [\text{TyP} [\text{CP} \text{ Mina-ka mwue-lul sa-ss-}] \text{ ni}] \rrbracket \rightsquigarrow \lambda p \exists x_{\langle e \rangle} [\text{thing}'(x) \wedge p = \lambda w. \text{bought}'(w, m, x)]$ | (5) a. $\llbracket \text{tako} \uparrow \rrbracket \rightsquigarrow \lambda(Q) \lambda p: \exists q [\text{uttered}'_{\langle st, t \rangle}(q) \wedge Q(q)] \cdot Q(p)$
b. $\llbracket [\text{TyP} [\text{CP} \text{ Mina-ka mwue-lul sa-ss-}] \text{ tako} \uparrow] \rrbracket \rightsquigarrow \lambda p: \exists q [\text{uttered}'(q) \wedge \exists x [\text{thing}'(x) \wedge q = \lambda w. \text{bought}'(w, m, x)]] \cdot \exists x [\text{thing}'(x) \wedge p = \lambda x. \text{bought}'(w, m, x)]$ |
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As shown above, both the o-INT marker *ni* and the EQ marker *tako*↑ return a set of propositions, but the EQ marker does so iff the presupposition is met. By assuming the only morpho-syntactic and semantic/pragmatic difference between EQs and o-INTs derives from their clause-type markers, my proposal can capture the unique morpho-syntactic, intonational, and semantic/pragmatic properties of Korean EQs.