Visibility Doesn’t Mean Hearability: Multichannel Syntax

**Theoretical background:** Platzack (1998) explores the consequences of a Visibility Condition on the C domain in Germanic languages and Italian. This Visibility Condition ensures that the C head and SpecCP cannot be both phonologically empty. Independently, Holmberg (2000) derives Stylistic Fronting in Icelandic and Faroese from a phonological feature checking requirement in T. Both the Visibility Condition and the PF side of the EPP predict that, at PF, a phonological matrix has to precede T, be it the matrix of a head or that of an XP. We restrict ourselves to the study of questions and note that in this respect, the PF requirement covers the standard alternatives in languages (i-iv).

i. SpecCP is filled by wh movement as is standard in English, German and French.
ii. An XP is merged for scope marking as in (1).
iii. A V head is moved into C as in the subject inversion in (2).
iv. A Q particle is merged in C (yes/no questions as in (3) or split-DPs constructions as in (4).

Under this generalisation, a yes/no question as (5) can be accommodated under the assumption that the rising intonational contour marks the presence of Q. Rising intonation is thus a reflex of the presence of a null operator, or the non-segmental phonological realisation of the Q particle itself (Cheng & Rooryck 2000). Once rising intonation is equated to Q, data from (1-5) follows thus straightforwardly from several strategies concurring to achieve both visibility of the C domain at the production level and interpretability of the question at the parsing level.

**The problem:** This however falls short in accounting for yes/no questions with uncontroversial non-rising intonation such as (6) and (7), both examples found in a non-induced corpus of English (Ferre 2004). In context, (6) and (7) are produced as questions and interpreted as such (followed by answers). Identical data is found in spoken French as in (8) for yes/no questions (Jouitteau forthcoming), or for in situ questions in (9) (Butler & Mathieu to appear, Oiry forthcoming).

**The solution:** The Visibility Condition or the PF side of the EPP in fact predict (6) to (9) if we consider the multichannel dimension of the data. Our claim is that examples from (6) to (9) instantiate Q particles morphologically realised as gestures. The Q particle realised by intonation in (5) is in fact realised by a raising gesture in (6) to (9). With a filmed English corpus, we show that in examples of the (6) and (7) type, the missing raising intonation is in fact realised by ostensible raising of the head of the speaker, together with eye contact with the hearer. In the French type of examples illustrated in (8), the question marker is obligatorily realised by either head or eyebrow raising. Notice that sign languages of French, British English and American English all use a raising gesture in environments where the corresponding spoken language would commonly use rising intonation. We establish a morphological correlations between the rising contour of Q-intonation and the concurring rising Q-gesture. Non-segmental Q items follow the same raising direction. RAISING can be equivalently embodied by several multichannel signs at PF, intonation or gesture. The result uniformly satisfies the Visibility Condition at PF. We discuss iconicity in this respect.

**Discussion:** Our proposition reduces the differences between signed and spoken languages: we know already from the study of sign languages that human languages can be multichannel. Functional projections such as C, NEG and AGR in sign languages may be realized both manually and non-manually (see Bahan 1996 for American Sign Language, Sutton-Spence and Bencie Woll 1999 for British Sign Language). This is illustrated in (10), where morphological agreement inflections are expressed manually via directionality of the sign, in contrast with the alternate (11) where abstract agreement features located in the heads of agreement phrases may be expressed by non-manual markings. There is no linguistically grounded reason why multichannality would be specific to signed languages. Syntactic elements can be embodied into different message channels, word strings, intonation, manual and non-manual markings, be it in signed or spoken languages.
(1) Was glaubt Uta wen Karl gesehen hat?  
\textit{Who does Uta believe that Karl saw?}

(2) Hast-du gegessen?  
\textit{Have you eaten?}

(3) a. Hag eo gwir an dra-se?  b. Ta gen shei shuohua ma.  
\textit{Did he speak with someone?}

(4) Combien (de livres) as-tu lu (de livres)?  
\textit{How many books have you read?}

(5) a. Tu veux passer en premier?  b. You wanna get first?  
\textit{Do you want to go first?}

(6) You get big bonuses at Christmas?  
\textit{Do you get big bonuses at Christmas?}

(7) So you’re going up to Durham?  
\textit{Are you going to Durham?}

(8) a. (Je) ‘peux finir mon thé?  b. Alors tu pars?  
\textit{Can I finish my tea? So you go away.}

(9) Tu aimes quoi?  
\textit{What do you like?}

(10) \textit{He/She shoots Frank.}

(11) \textit{He/She loves mother.}

\textbf{Selected References}


