On the examples like (1a, b), it has been widely assumed that the interpretation of in-situ wh-phrases is free from Subjacency effects. What in the adjunct clause in (1a) and who in the relative clause in (1b) can take scope over the entire sentences. Researchers take this to indicate that the movement of in-situ wh-phrases is different from overt wh-movement (Huang (1982) and Lasnik ans Saito (1992)) or that in-situ wh-phrases do not move (Chomsky (1995)). Nevertheless, we can notice that the examples in (1) all involve the local overt movement of a subject wh-phrase to the SPEC of CP. A question arises how in-situ wh-phrases behave in examples with the overt movement of non-subject wh-phrases, and we can observe Subjacency effects with the interpretation of in-situ wh-phrases in those examples. While what in a complement clause in (2a) can take scope over the entire sentence, what in an adjunct clause in (2b) and who in a relative clause in (2c) cannot. Given (2a-c), we need to say that contrary to the widely held view mentioned above, there are cases in which in-situ wh-phrases move exactly like wh-phrases move in overt syntax. Now, we are faced with a new question why in-situ wh-phrases move in (2a-c) but not in (1a, b). This paper is an attempt to give a principled answer to this question.

In English, exactly one wh-phrase must overtly move to the SPEC of CP as in (3). Following the recent development of the minimalist program (Chomsky (2007)), I assume that an interrogative CP has <Q> feature on its head, and that <Q> stands in an agreement relation with wh-phrases it c-commands. In (3'), <Q> agrees with who. On this agreement relation, the CP is interpreted as a wh-question, and who is assigned its scope. If there is no need for the movement of a wh-phrase, the formation of CP is completed in (3'). Then, why does who have to move? Here, adopting Cheng’s (1991) clausal typing hypothesis, I assume (4). CP in (3') must be typed as a wh-question by a wh-phrase in its SPEC. For this reason, (3') needs the edge feature <EF-wh> to attract who, as in (3'”), and the CP is properly typed. In (2a-c), a non-subject wh-phrase is overtly moved for <EF-wh>. Given the Subjacency effects with the interpretation of in-situ wh-phrases in (2a-c), we need to assume that <EF-wh> in English is a feature to attract not a single wh-phrase but all wh-phrases <Q> agrees with. Bulgarian provides evidence for this assumption. As in (5), all the wh-phrases in a sentence, koj ‘who’ and künde ‘where,’ are overtly moved in Bulgarian. This shows that <EF-wh> on C in Bulgarian attracts all the wh-phrases <Q> agrees with. Then, it is not unnatural to assume the same for <EF-wh> on C in English and say that it attracts all the wh-phrases <Q> agrees with, as in (2a’–c’). As the in-situ wh-phrases in (2b’, c’) move out of an island, they are ill-formed. The only difference between Bulgarian and English lies in the timing of the movement of wh-phrases.

If <EF-wh> is present in (1a, b), even in-situ wh-phrases should move for it, exhibiting Subjacency effects, but no Subjacency effects are observed in (1a, b). This indicates that <EF-wh> is not present in (1a, b), and that even the matrix subject phrase who does not move in them. This is consistent with the Vacuous Movement Hypothesis that a subject wh-phrase does not move to the SPEC of the local CP, but stays in the SPEC of TP (George (1980), Chomsky (1986), and Agbayani (2000)), but how are the CPs in (1a, b) typed by a wh-phrase in the SPEC of TP? I assume that a clause is typed by a wh-phrase local enough to <Q> on C, and we could say that <Q> on C and a subject wh-phrase in the SPEC of TP are local enough to each other. As (6a-c) show, C selects the form of T, that forces T to be tensed, for requires T to be infinitival, and WH-C allows both. On this close relationship between C and T, I assume that C and T form some kind of extended head sharing features (Chomsky (2007)). Then, <Q> on C and a wh-phrase in the SPEC of TP can be considered to be local enough to each other inside the projection of a single extended head, typing the CPs as interrogative. If so, there is no need for <EF-wh> on C to attract wh-phrases to type the CPs in (1a, b), and hence the absence of Subjacency effects. Agreement relations can be established between <Q> and wh-phrases inside an island for movement as they do not involve movement (Bošković (2007)). Thus, the CP is properly interpreted as a wh-question, and the wh-phrases are assigned proper scope on their agreement relations with <Q>, as in (1a’), the final representation of (1a).
Examples and representations in the order in which they are mentioned in the abstract

(1) a. Who got angry because John bought what?
   b. Who read a book that criticized who?
(2) a. *Who did you tell [that John bought what]?
   b. *Who did you call [because John bought what]?
   c. *Who did you tell [the story [that surprised who]?
(3) Who do you like?
(3') [CP [c <<Q>]] [TP you like who]]
(4) A clause needs to be typed as either declarative or interrogative in a phonetically detectable way.
(3") [CP [who [c <<EF-wh<><Q>]] [TP you like who]]
(5) Koji, kude misliš [če e otišül e c]?
   'Who do you think (that) went where?' (Rudin (1988: 450))
(2) a'. [CP [what who [c <<EF-wh<><Q>]] [TP you told who [that John bought what]]]
   ↑__________Move_____________
   ↑Move_____________________
   b'. [CP [what who [c <<EF-wh<><Q>]] [TP you called who [because John bought what]]]
   ↑__________Move_____________
   ↑Move_____________________
   c'. [CP [who who [c <<EF-wh<><Q>]] [TP you told who the story [that surprised who]]]
   ↑__________Move_____________
   ↑Move_____________________
(6) a. [c:That] [TP John [T is/*to be] talented] is clear.
   b. [c:For] [TP John [T *is/to be] diligent] is surprising.
   c. [CP Who [c:WH] [TP we [T should] call/PRO [T to] call]] is a problem.
(1) a'. [CP [c <<Q>]] [TP who, [c: who got angry [because John bought what]]]
   ↑Agree__
   ↑Agree_____________________

References