Adverbs and the scope of negation in questions and answers

Neutral yes/no-questions (YNQs) in Swedish (and the Scandinavian languages more generally) are standardly answered by an affirmative particle *ja* or negative particle *nej*.

1) **Vill du ha kaffe?**  
   *Ja/Nej.*  
   **will you have coffee**  
   
When answering negative YNQs, Swedish/Scandinavian employs the so called polarity-based system, where the negative alternative is confirmed by the standard negative particle, in contrast with languages where the standard affirmative particle is used for this purpose, including Chinese, Thai, Japanese, and many other languages (the so called truth-based system).

2) **Vill du inte ha kaffe?**  
   *Nej.*  
   **will you not have coffee**  
   
Now consider (4). Assume you want the answer in (4) to mean that you sometimes don’t remember where you put the keys (confirming the negative alternative).

4) **Kommer du ibland inte ihåg var du har lagt nycklarna?**  
   *Ja/*Nej.  
   **‘Do you sometimes not remember where you have put your keys?’**

Here the negative alternative is confirmed the ‘Chinese way’, by the affirmative particle. The adverb is what makes the difference; remove the adverb and the negative alternative can only be confirmed by the negative particle. In the following cases, there is more variation. Assume that the answer should confirm that you don’t want coffee:

5) **Vill du fortfarande inte ha kaffe?**  
   (?)*Ja/(?)Nej.*  
   **will you still not have coffee**  
   
The prefix (?) here indicates variation among the respondents of a limited survey. There is a trend that the *nej*-answer is more preferred the lower we are on the list (4–8). The variation appears to correlate at least in part with the structural height of the adverb. The only order possible among them is the one in (9).

9) **Vill du alltså verkligen/kanske fortfarande ibland (inte) ha kaffe?**  
   (?)*Ja/*Nej.*  
   **will you thus really perhaps still sometimes not have coffee**  
   
How do we account for this? It is as if the adverb ‘keeps the negation in the question in a low position’, and the lower the negation, the more preferable is the *ja*-answer.

The correlation between height of adverb and preference for *ja* is not absolute. For instance, the adverb *alldeles säkert* ‘quite surely’ is structurally higher than *fortfarande*, ‘still’, as shown by (10), but the *ja*-answer is more preferred with *alldeles säkert* than with *fortfarande*.

10) **Vill du alldeles säkert fortfarande (inte) ha kaffe?**  
    *Ja/*Nej.*  
    **will you quite surely still not have coffee**  
    
11) **Vill du alldeles säkert inte ha kaffe?**  
    *Ja/*Nej.*  
    **will you quite surely not have coffee**
I propose the following formal account: Every finite clause has a high polarity head Pol, the highest head in the IP-domain. This head is merged unvalued. In a declarative sentence it will probe for an inherently valued polarity category. If the sentence has a negation, it will value Pol negative. If the sentence does not contain a negation, Pol will get affirmative value as default.

In a YNQ Pol is unvalued. This, in conjunction with illocutionary question force, is the defining property of a YNQ. This holds for negative questions, too. The simple answer to a YNQ is an elliptical expression, made up of a focused particle with either affirmative (ja) or negative (nej) value and an IP which is identical to the IP of the question, and is therefore usually not spelled out (identical up to assignment of values to variables, as always with ellipsis). The focused particle functions as an operator assigning value to [uPol], which yields the affirmative or negative answer. If the question contains a negation, the IP of the answer will contain a negation, too (or ellipsis couldn’t happen). This negation will agree (by negative concord) with negative answer particle (in the polarity-based answer system). But it will clash with the positive answer particle. This is why the answer ja in (12) is ill-formed.

(12) Vill du inte ha kaffe? *Ja./Jo
The particle jo is a polarity-reversing affirmative particle (Farkas & Bruce 2010, Holmberg 2003), which neutralises the negation in the IP of the answer and assigns positive value to Pol.

The effect of the adverbs is that they intervene between Neg and Pol, potentially blocking the Agree relation between Neg and Pol, in the answer. This avoids the feature clash, allowing the focused particle to assign affirmative value to [uPol]. The result is an answer which combines positive polarity with negation: affirmation of the negative alternative. (13) would be the structure of the answer Ja in (4) (abstracting away from verb movement etc.).

(13) Ja FOC [jag [+Pol] ibland inte kommer ihåg ... ]

There is variation among the adverbs how effectively they block the Agree relation between Pol and Neg. The height of the adverb is one factor. The frequency adverb ibland ‘sometimes’ is low on the hierarchy (Cinque 1999). The structural distance between the negation and Pol in (4) is correspondingly great, giving the affirmative particle in the answer the upper hand, allowing it to assign value to Pol, unambiguously. The evidential adverb alltså is very high, and the structural distance between Neg and Pol in (8) is correspondingly short, giving the negation the upper hand, leading to a feature clash between ja and negative Pol (for most speakers). Instead, to convey the reading ‘I don’t want coffee’ in the answer to (8) the negative answer particle can be used (by all speakers), relying on the negative concord relation with negative Pol. The reason why säkert ‘surely’ is a more efficient blocker of the Agree relation between Pol and Neg than, for example, the continuative adverb fortfarande ‘still’, even though it is higher than fortfarande, is, I assume, the fact that it is subject-oriented (however this is to be formalized exactly, in terms like (13)).

The similarity between answers to YNQs with certain adverbs in Swedish (and other polarity-based languages) and answers to YNQs more generally in Chinese and other truth-based languages is no accident. There are reasons to believe that the negation is, or can be, lower in the latter type of languages than in the former, which determines how negative YNQs can be answered.