Pragmatics and other factors in resolving scope ambiguity

Scope ambiguity is a wide-spread phenomenon, which is fairly well described in the studies of semantics-syntax interface. However, in actual communication we rarely experience difficulties in assigning correct scope to operators in the contexts which allow potential ambiguity. Unlike lexical polysemy, which is more frequently resolved by semantic factors, i.e. semantic classes of collocates, one of the crucial factors in resolving scope ambiguity is pragmatics. Consider, for example, the adverb *accidentally*, which presupposes an action and asserts its non-intentionality; cf. *I didn’t cut my finger accidentally* = ‘I cut my finger [presupposition]; it was not intentional [assertion]’.

*Accidentally* can have wide scope readings as in (1), where it has scope over the verb and the modifier of time, and narrow scope readings as in (2) where it has scope only over the complement:

1. *The house was accidentally* [***burnt in 1947***]
2. *We accidentally planted* [***potatoes***]

Wide scope readings denote “purely accidental agents” and narrow scope readings denote “mistaken intentional agents” [Martin et al. 2016].

The readings are determined by pragmatics: *We accidentally planted* [***potatoes***]favors narrow scope, since in a plausible world, planting is deliberate; therefore, the mistake concerns only a certain aspect of this action. On a linguistic level, it means that the adverb *accidentally* affects only one argument of this verb (the object – the planting stock).

On the other hand, *The house was accidentally* [***burnt in 1947***]favors wide scope, since house-burning is normally unintentional; as for the possibility of a deliberate reading, an arson meant for a particular year is pragmatically implausible.

The discussion will mostly be devoted to pragmatic and other factors that are at play in the interpretation of scope ambiguities in the combination of the universal quantifier *all* with negation. It is well-known, that in certain sentences with *all* and *not*, negation can have scope either over the verb, or over *all*, as in (1) and (2):

1. *I did not* [*see*] *all these people* ≈ *I saw none of those people*

(*not* has scope over the verb)

1. *I did not see* [all] *these people* ≈ *I saw some of these people* (*not* has scope over the verb, but not over the universal quantifier)

Thus, the surface structure with negation, a verb and a quantifier phrase *not V all X* can be interpreted as either as (5) or (6) depending on whether negation has scope over the verb or over the universal quantifier.

1. *not V all X =* not [V] all X (of all Xs, it is true that they are not V)
2. *not V all X =* not V [all X] (it is not true that all Xs are V = some Xs are V and some Xs are not V)

Yet cases where both interpretations are equally feasible are quite rare. In the majority of cases, context provides sufficient clues as to the choice of the intended reading; cf.

1. *I don’t believe all this bullshit he tells me* (≈ ‘I don’t believe anything of what he tells me’, negation has scope over the VP)
2. *I don’t agree with all he says but many things sound reasonable* (≈ ‘I agree with part of what he says’, negation has scope over the quantifier phrase)

Based on a parallel Russian-English corpus study, the following factors have been determined to be relevant in the choice of interpretation:

* **Information structure** of the utterance, namely whether *all* is in the topic or in the focus;
* **Syntactic structure** of the utterance, namely whether there is a “competing” constituent that can “attract” negation in lieu of the universal quantifier;
* **Semantic structure** of the utterance, namely, whether the universal quantifier is presupposed;
* **Conventional implicatures**, namely what are the normal pragmatic expectations in the situations that are introduced by verbs and quantifier phrases. Consider, e.g., *all night* in the context of *sleep*,which is pragmatically likely to be understood with the wide scope of *all*: *I have not slept all night* = ‘I haven’t had any sleep’. However, *all* in the context of mental and perception predicates like *know,* *understand, see, hear* is more likely to be negated: *I haven’t understood all he said* (‘I understood only part of what he said’); *I haven’t seen all his paintings* ‘I have seen only part of his paintings’.