English sentences like (1a) are ambiguous between a wide-scope reading of all (all>not) and an in-situ reading (not=all). In contrast, nominalizations like (1b) are not ambiguous; scope is frozen at surface structure and there is only the wide-scope reading (all>not).

(1) a. All doors did not open.
   ‘All doors did not open, i.e., none opened’. Wide all>not
   ‘Not all doors opened, i.e., some doors opened’. Narrow not=all

b. All doors’ not opening was surprising.
   ‘All doors did not open and that was surprising.’ Wide all>not
   # ‘Not all doors opened, i.e., some doors opened’. Narrow not=all

Our first question is: Why does scope freezing occur in nominalizations where it does not occur in sentential syntax?

In English –*ionnominalizations there is a further scope asymmetry, discussed by Roeper and Van Hout (2009). So-called active nominals with the Theme argument in a postnominal of-phrase as in (2a) are ambiguous, parallel to (1a) above. On the narrow-scope reading nobody takes scope in its postnominal position, yielding “As for the election, nobody was elected and that surprised me”. On the wide-scope reading nobody takes scope over election, giving “As for those elected, none of them surprised me”. In passive nominals on the other hand with the Theme argument in prenominal position there is scope freezing: (2b) only has the wide-scope reading, similar to (1b) above.

(2) a. The election of nobody surprised me
   ‘Of those elected, none of them surprised me’. Wide
   ‘Nobody was elected, which was surprising’. Narrow

b. Nobody’s election surprised me
   ‘Of those elected, none of them surprised me’. Wide
   # ‘Nobody was elected, which was surprising’. Narrow

The second question that we take up is thus: Why are active –*ion nominalizations ambiguous, whereas passive nominalizations have scope-freezing?

Parallel to English –*ion nominalizations, there is an asymmetry in Japanese sa ‘extent’ nominalizations, discovered by Kamiya (2009). The Japanese nominalization in (3a) is ambiguous between a wide-scope reading (all>not) and an in-situ reading (not=all). (3b) on the other hand is not ambiguous and only has the wide-scope reading (all>not). Whereas scope freezing in English nominalizations is sensitive to the prenominal versus postnominal position of the quantified phrase, scope freezing in these Japanese nominals exhibits a subject/object asymmetry. In (3a) the quantifier phrase zen ‘all’ is an object and there is ambiguity, whereas in (3b) it is a subject and there is only one reading.

(3) a. [NP Watasi-no zen-gaku-no takai-ta-ku-na-sa]-wa sensee-ni wakatta.
   I-GEN all-sum-GEN spend-want-ku NEG NML TOP teacher-DAT understood
   ‘The teacher understood the extent to which I do not want to spend any of my money.’
   all>not
   ‘The teacher understood the extent to which I do not want to spend some of my money.’
   not=all

   all-student-GEN test-GEN take-want-NEG NML TOP teacher-DAT understood
   ‘The teacher understood the extent to which all of the students do not want to take the test.’
   all>not
   # ‘The teacher understood the extent to which not all of the students want to take the test.’
   not=all

So Japanese reveals a further scope asymmetry: sa ‘extent’ nominalizations with a quantified object zen ‘all’ are ambiguous between a wide-scope and narrow-scope reading, whereas nominalizations with a quantified
subject *zen* ‘all’ resist a narrow-scope reading. We take the latter case to be an instance of scope freezing and so our question becomes: What explains the subject/object scope freezing asymmetry in Japanese *sa* ‘extent’ nominals?

We argue that there are two specifier positions in a nominalization structure, one is an A-position (SPEC-NP), comparable to SPEC-TP in clauses, and the other an A’-position (SPEC-DP), equivalent to SPEC-CP in clauses (Hiraiwa, 2005). When a quantified argument moves to SPEC-CP for QR (Miyagawa, 2006), it must move through SPEC-NP, observing Edge-to-Edge movement, since SPEC-NP has an Edge Feature (EPP) as an equivalent to SPEC-TP. *Nobody* in (2b) (and *all doors* in (1b)) moves to SPEC-DP via SPEC-NP as (4a). The same path is applied to (3b) as in (4b) where *zen* ‘all’ takes scope over negation *na* ‘not’.

(4) a. DP
   / \  b. DP
   D’   
   / \     zen D’
   Nobody / \  
   / \     / \ 
   D NP   D NP
   / \     / \ 
   Nobody N’  zen N’
   / \     / \ 
   N VP   N AP
   -tion  sa

(Double-strikethrough means that this is not accessible.)

Movement to the A’-position can be overt or covert. The ambiguity or lack of ambiguity in nominalizations depends on the movement path. If movement goes via the A-specifier, reconstruction is blocked and there is only one interpretation, as in (4), following Lasnik (2003): A-movement does not reconstruct. (2a) and (3a) have one construal with *nobody* and *zen* ‘all’ in-situ which gives the narrow scope, and another construal with covert movement of *nobody* to the Spec-DP for the wide scope reading. Furthermore, we adopt Nevins and Anand’s (2003) PEPPER: movement only for EPP does not reconstruct. This assumption explains other example such as (1a); in (1a), the movement to SPEC-TP involves nominative Case and EPP, hence, PEPPER does not apply, while in (1b), (2b) and (3b), only wide scope reading is possible since *all doors*, *nobody* and *zen* ‘all’ must move to SPEC-DP via SPEC-NP for Edge Feature (EPP), hence reconstruction is not possible as (4) and PEPPER. The passive movement of *nobody* for wide scope readings is also demonstrated by example (5):

(5) *Yesterday’s election of nobody surprised me.*

(5) has a only narrow scope reading. This is because on the wide scope reading *nobody* would have to move to SPEC-DP via SPEC-NP. However, the presence of ‘yesterday’, blocks this (covert) movement. As a result, only narrow-scope reading is obtained.

Hence, this paper argues that there is a parallelism between sentences and nominalizations with respect to the Edge movement. In addition, the current data supports PEPPER, which distinguishes A-movement from A-bar movement in both sentences and nominalizations. In essence, the present paper reinforces Horrocks and Stavrou (1987)’s nominal structure, which did not observe nominalization-internal two types of movements.

References: