1. Kayne (1994, sect. 4.5) took the LCA to see sub-word-level structure as well as phrasal structure.

The relevance of the LCA to morphology comes up in an interesting way if we look at the prefix/suffix question:

1. prefix - root
2. root - suffix

The LCA has the consequence that the structural relation between prefix and root cannot be the same as the structural relation between suffix and root. Setting aside remnant movement possibilities, a prefix must asymmetrically c-command the root, whereas a suffix must be asymmetrically c-commanded by the root.

This ties in to a simple question. Why are prefixes prefixes and not suffixes, and why are suffixes suffixes and not prefixes?

This question can be asked internal to one language, or cross-linguistically.

For example, we can ask why English has *re*- as a prefix rather than as a suffix. If *re*- is a prefix rather than a suffix in all languages, then we can ask why that is.

If *re/-l-re* is a prefix in some languages and a suffix in others, we might be looking at a case of irreducible parametric variation unrelated to any other property of the two sets of languages. Alternatively, it might be that prefixal *re*- vs. suffixal -re correlates with other properties, in which case the underlying parameter(s) in question would have broader reach.

A partially correlating property was suggested by Greenberg in his Universal 27:

3. If a language is exclusively suffixing, it is postpositional; if it is exclusively prefixing, it is prepositional.

If Greenberg’s Universal 27 is correct, it supports the idea that morphology is similar to and interacts strongly with syntax above the word level.

That (a substantial part of) what is traditionally referred to as morphology is essentially syntax will also be supported by the relevance of antisymmetry to morphology.

As a test case, take the English negative prefixes *un-, in-, a-*, as in *unintelligent, ineffective, amoral*, where the negative prefix precedes an adjective. As far as I can see, English has no comparable negative suffixes that would follow an adjective and have the same interpretive effect as *un-, in-, a-*.  

I also don’t know of any other language having negative suffixes that would be suffixal counterparts of *un-, in-, a-*. If so, we need to ask why such negative affixes are invariably prefixal, cross-linguistically.
(I take English \textit{-less} as in \textit{clueless} not to be a suffixal counterpart of \textit{un-}, \textit{in-}, \textit{a-}. Rather, \textit{-less} seems akin to \textit{without}, which is more complex than simple negation.)

Assuming negation to necessarily asymmetrically c-command (at some point in the derivation) what it scopes over, and assuming \textit{un-}, \textit{in-}, \textit{a-} to scope over the adjective they precede, there is nothing surprising about their being able to be prefixes.

As to why they could not be suffixes, the answer must be that if they were they would not asymmetrically c-command the adjective.

In the absence of any movement taking place, that follows directly from the LCA (strictly speaking from the LCA plus what universally chooses S-H-C over C-H-S). This is so, since if the negative affix asymmetrically c-commands the adjective, it must, by the LCA, precede it, i.e. be a prefix.

On the other hand, we know that sentential negation can end up following (a piece of) what it scopes over, e.g. in English in:

(4) They can’t lift the piano.

or in (Quebec) French in:

(5) Ils aiment pas ça. (‘they like not that’)

or in Nweh and various other languages where negation is (at a first approximation) sentence-final.

A familiar analysis has \textit{can} in English moving up past \textit{n’t}. Another familiar analysis has the verb in French moving up past \textit{pas}. And in Nweh and similar languages there is Nkemnji’s proposal for phrasal movement up past Neg.

The fact that sentential negation can in some languages follow (a piece of) what it scopes over can be attributed to movement. The question, then, is why that can’t be mimicked by \textit{unintelligent} et al. Why can movement, starting from a configuration in which \textit{un-} does asymmetrically c-command \textit{intelligent}, not produce:

(6) *intelligentun

A proposal that comes to mind is as follows. Even though:

(7) John is unintelligent.

is interpretively close to:

(8) John is not intelligent.

the phrase minimally containing \textit{un-} is ‘smaller’ than the phrase minimally containing \textit{not}. Call it a ‘very small clause’.

Assume now that very small clauses allow for fewer movement operations (i.e. have fewer possible landing sites) within them than fuller (finite or infinitive) clauses. Assume more specifically that very small clauses do not have enough ’space’ for adjective movement (cf. Williams (1975)). (And/or assume a link to the fact that in Italian adjectives cannot move up past an object clitic in the way that (sentential) past participles can.)

If so, then the very small clause reflected in \textit{unintelligent} will not allow adjective movement to produce *intelligentun.

Note that without antisymmetry *\textit{intelligentun} et al. could have -\textit{un} asymmetrically c-commanding the adjective without any movement taking place.

The conclusion is that a combination of antisymmetry plus reduced (or absent) movement options in very small clauses is capable of providing an account of the apparent fact that negative affixes of the \textit{un-}, \textit{in-}, \textit{a-} sort are invariably prefixes, in all languages.

A key component of this account is that antisymmetry covers affixes and roots as well as larger constituents.
This account makes it unnecessary to stipulate that *un-, in-, a-* are cross-linguistically prefixes rather than suffixes. (The extent to which such ordering stipulations can be (perhaps completely) eliminated from the theory remains to be seen.)

2.

Derived nominals of a certain sort in English contain suffixes such as -ion or -al, e.g. in destruction or removal.

In the spirit of the preceding discussion of negative affixes, we can and must ask why -ion and -al are suffixes rather than prefixes.

Relevant to this case is the question whether 'word' necessarily corresponds to a syntactic constituent. Koopman and Szabolcsi (2000) and Julien (2002) have shown that words can fail to be syntactic constituents. In Kayne (2008, sect. 11) I took a similar position for derived nominals like destruction, removal.

This is supported by restrictions on derived nominals having to do with what can follow them within DP. Possible is:

- (9) the removal of the money from the children
- (10) the gift of the money to the children

as opposed to:

- (11) *the deprivation of the children of their money
- (12) *the provision of the children with money

Also:

- (13) They explained (away) the problem.
- (14) their explanation (*away) of the problem

The proposal was in part that different kinds of PPs (with from/to vs. with of/with) behave differently under non-contrastive (non-wh) PP-preposing, too, as seen in:

- (15) ?From so many poor children, they've stolen so much money!
- (16) ?To so many poor children, they've given so much money!

as opposed to:

- (17) *Of so much money, they've deprived so many people!
- (18) *With so much money, they've provided so many people!

Similarly:

- (19) *Away, they've explained so many problems!

This suggests that PP-preposing (as well as particle preposing) plays a key role in (9)-(14), too. With the question now being why it must. The answer is that such preposing is needed in order to make subsequent remnant movement of the verbal root possible. (Relevant also is the idea that nouns can never take complements.)

Start with

- (20) remov- the money from the bank

Non-contrastive PP-preposing yields (omitting traces/silent copies):

- (21) from the bank remov- the money

Case-related movement plus merger of of then yields:

- (22) of the money from the bank remov-

Merger of -al (probably by internal merge, source not indicated) yields (cf. Collins (2006)):

- (23) -al of the money from the bank remov-

Remant movement of a phrase beginning with remov- then yields:
(24) remove- -al of the money from the bank
in which removal is not a syntactic constituent.

That the movement of -al out of a constituent containing remove- takes place prior to the remnant movement in question may reflect the fact that extraction of -al subsequent to remnant movement would violate the PIC or something comparable.

If of and with phrases of the sort seen in (17) and (18) cannot be so preposed, and assuming in the spirit of Koopman and Szabolcsi (2000) that they must be, then (11) and (12) will not be derivable (and similarly for (14), with away present).

The general expectation is that phrases that cannot scramble (non-contrastively prepose) will not be possible in derived nominals. This may cover:

- (25) *your appearance to have made a mistake
- (26) ?the kind of mistake to avoid which he always tries
- (27) *the kind of mistake to have made which he definitely appears

where preposing a control infinitive is less bad than preposing a raising infinitive.

Like (27) is:

- (28) *the kind of mistake to have made which he is definitely believed
Like (25), then, is:

- (29) *his belief to have made a mistake

The parallelism between derived nominals and scrambling/preposing may also extend to:

- (30) his eagerness to introduce you to people
- (31) *his easiness to introduce to people

given the (arguably parallel) contrast:

- (32) ?those people, to introduce you to whom he would certainly be eager
- (33) *those people, to introduce to whom he would certainly be easy

The derivation shown in (20)-(24) produces removal, with remove- higher than -al, rather than *alremove because remnant movement of remove- follows the movement of -al. The same holds for the simpler:

- (34) the removal of the money

Antisymmetry translates 'remove- higher than -al' into 'remove- precedes -al'.

If antisymmetry did not hold, the derivation of (34) could translate into the reverse order (orthogonally to the position of the):

- (35) *the of the money alremove
- (36) *of the money alremove the

In other words, we have an account, in terms of antisymmetry plus the ordering property mentioned after (20)-(24), of the fact that -al is a suffix and not a prefix (and similarly for -ion and other comparable affixes, with additional complexity related to the position of the arguments themselves).

3.

Antisymmetry, combined with other aspects of syntactic theory, provides a handle on the question why certain affixes are prefixes and others suffixes.

An important facet of all this is the question of how much cross-linguistic uniformity there is in this area of morphosyntax. The question is a challenging one, if only because of the difficulty one has in pinning down exact cross-linguistic counterparts (of, in this case, affixes).