Liaison consonants are word-final
A reply to Marie-Hélène Côté

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For Glyne Piggott
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Arguments against W1: vocalic and on syllable structure

- It is the vocalic processes (laxing, diphthongisation, ε opening) that argue against affiliating the liaison consonant to the first word.
- All these processes are triggered by syllable structure: the liaison consonant does not close the preceding syllable.
  - *vite* ‘quick’ [vit], *maudit amie* ‘damn-FEM friend’ [modzit ami], *maudit ami* ‘damn-MASC friend’ [modzit ami]
  - *était* ‘was’ [etæ], *parfait imbécile* ‘perfect-MASC idiot’ [parfætěbesil] (variable), *parfaite imbécile* ‘perfect-FEM insult’ [parfɛtɛsylt]
Arguments against W2: consonantal and on linear string

- It is the consonantal processes (aspiration, affrication) that argue against affiliating the liaison consonant to the first word.
- All these processes seem defined by the linear string rather than by syllable structure.
  - *trente isoîloirs* ‘thirty polling booths’
    - [tʁɑ̃tsizɔ̃lwar]/[tʁɑ̃tizɔ̃lwar], *grand isoîlor* ‘big polling booth’
    - [ɡʁɑ̃tsizɔ̃lwar]/[ɡʁɑ̃tizɔ̃lwar], *grand tisonnier* ‘big poker’
    - [ɡʁɑ̃tsizɔ̃ɲe], *[ɡʁɑ̃tizɔ̃ɲe]
Saying that liaison consonants are ‘in the middle’ between W1 and W2, for instance in a construction, sheds no light on the remarkable split between vocalic and consonantal tests.

I propose a solution based on more conservative principles: the liaison is a floating segment belonging to W1.

The solution is representational, but has some similarities to derivationalism based on the PIC.
The basic paradox

- We will take *maudit isoloir* [modzitizɔlwar] as our basic example.

- A paradox arises: the [t] is integrated into the syllable structure of W2, whereas at the same time affrication (which I assume is spreading of a feature from the vowel to the consonant) can be blocked (more on optionality later)
Mirroring

- There is a long tradition in phonology assuming that (hierarchical) structure in phonology serves to mirror morphosyntactactic structure.
- Van Oostendorp (2002) proposed a theory of morphological domains for the way in which (i) syllable structure and morphological structure are mapped onto each other.
- This theory will be extended here for (i’) segmental structure and (ii’) syntactic structure.
A prefix-suffix asymmetry in Dutch (and German)

1. ▶ *ode* ‘ode’ [o.də]  
   ▶ *er+en* ‘to honour+TINF’ [e.rən]  
   ▶ *ont+eer* ‘dis+honour’ [ont.er]

2. ▶ *elite* *elite+air*  
   [e.li.tə] [e.li.tər] / *[e.li.tər]*  
   ‘elite’ ‘snobbish’  
   ▶ *adem* *be+adem*  
   [a.dəm] [bə.a.dəm] / *[ba.dəm]*  
   ‘breathe’ ‘breathe upon’
Unsatisfactory solutions

- **Suffixes are morphologically attached before prefixes are.** The problem with this solution is that it is arbitrary; furthermore in a case like *ont+eer+en* (*dis+honour+INFL*), the suffix is inflectional and the prefix is derivational, which makes it somewhat harder to adopt this solution.

- **Dutch adopts a ranking ALIGN-L≫ALIGN-R.** This solution is also arbitrary; does not take into account the fact that this ranking is universal, or otherwise it merely postulates this universality. Furthermore: do morphemes really have left and right edges?

- **“Processing pays special attention to the left edge.”** Even this solution is arbitrary, since it does not explain why this influences grammar; processing also pays attention to the right edge.
Alignment should be symmetric

\[ P \approx L_x: \text{Morpheme boundaries should coincide with the boundaries of prosodic constituents (i.e. a phonological word).} \]
Morphological domains

- $[V]\, [V\, \text{cnt}\, [N\, \text{er}\, ]_N\, ]_V\, \text{en}\, ]_N$

- The morphological domain of a segment $S$ is the smallest morphological word in which $S$ occurs.

- The morphological domain of a syllable $T$ is the morphological domain of the segment heading $T$. 
Morphological domains

- \[ [ V \cdot V \; s h a r t o n \; [ N \; e r ]_N ] \cdot V \; s h a r t o n \; ]_N \]

- The *morphological domain of a segment* \( S \) is the smallest morphological word in which \( S \) occurs.

- The *morphological domain of a syllable* \( T \) is the morphological domain of the segment heading \( T \).
Morphological domains

- \([V[V \, \text{ont} \, [N \, \text{er}]_N \, V \, \text{en}]_N]\)
- The *morphological domain of a segment* \(S\) is the smallest morphological word in which \(S\) occurs.
- The *morphological domain of a syllable* \(T\) is the morphological domain of the segment heading \(T\).
Integrity

- Morphological syllable integrity (INTEGRITY): All segments in a syllable should be in the same domain as that syllable.
  \[
  \forall \text{ segment } S: \forall \text{ syllable } T \text{ dominating } S: \text{ the morphological domain of } S \subseteq \text{ the morphological domain of } T.
  \]
Dishonour

dis+honour+INF

\[
\sigma \sigma \sigma 
\]

\[
\text{c n t e r } \varepsilon
\]

\[
\text{N}
\]

\[
\text{V}
\]

\[
\text{V}
\]
Disputing

un+one+ish ‘disputing’

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Asymmetries in liaison

- We find similar left/right asymmetries in the phonology-syntax interface.
- E.g. in liaison (or enchaînement), one typical context are prenominal adjectives; but postnominal adjectives are never a context.
- An (admittedly rather artificial) classical example is:
  - *savant anglais* “learned Englishman” (liaison)
  - *savant anglais* “English scholar” (no liaison)
Integrity

- Syntactic syllable integrity (INTEGRITY):
  All segments in a syllable should be in the same phrase as that syllable.
  \( \forall \text{ segment } S: \forall \text{ syllable } T \text{ dominating } S: \text{ the syntactic domain of } S \subseteq \text{ the syntactic domain of } T. \)
Learned Englishman

\[ \sigma \quad \sigma \quad \sigma \]

\[ v \hat{a} t \quad a \quad m \quad e \]

\[ \text{AP} \quad \text{N} \quad \text{NP} \]
The status of liaison consonants

Extension to syntax

Extension to features

English scholar

liaison consonants are word-final
Asymmetries in Raddoppiamento

- Another asymmetry can be seen in the comparison to Italian Raddoppiamento
- One difference between the two languages is that postnominal adjectives do not undergo liaison, but they do undergo liaison, but the undergo RS
- Why? Liaison is about a syllable looking for an onset on its left, RS is about a syllable looking for a consonant to fill the mora on its right.
- In other words, the asymmetry is in the phonology proper, not in the interface.
Cittá t(r)iste

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Extension to features

- The examples so far involve syllables as constituents of segments.
- We can extend this to segments as constituents of features as well.
- This can account for stem control phenomena in harmony.
Feature Integrity

- Morphological segment integrity (INTEGRITY): All features in a segment should be in the same domain as that segment.

  \( \forall \text{feature } F: \forall \text{segment } S \text{ dominating } F: \text{the morphological domain of } F \subseteq \text{the morphological domain of } S. \)
Stem controlled vowel harmony

- In stem controlled vowel harmony, features spread outward, but not inward.

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F F
X X X

\[ \text{N} \]
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Back to liaison

- We are now well equipped to understand the ‘dual’ status of liaison consonants.
- Consider again our original representation; the word on the right (isoloir) is a N and the head of the construction, whereas the word on the left is an AP.
- The head of the syllable is the segment in the noun, the head of the segment for spreading is in the AP.

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Variability

- What about variability?
- Affrication if variable, but this is also true if the consonant is unquestionably word-final
- This merely indicates that adherence to segment integrity itself is variable
- As a matter of fact, a ‘construction’ analysis cannot account for the fact that the variability is similar to that of real word-final consonants
Conclusions

- The data on Laurentian French in Côté (2011) show that the behaviour of liaison consonants is subtle.
- However, they can be analysed in a rather conservative way, viz. as final consonants, provided we have a sophisticated analysis of the phonology-morphology interface.
- The analysis given here is put in representational terms; a derivational counterpart would capitalize on the fact the phonological head looking for something to dominate is always in the head of the morphosyntactic structure.
- We leave this as an exercise for those who believe in a derivational interface.