“Remarks”

- We have a distinction between:
  - transformations, which are completely predictable, and
  - lexical entries, which are listed
- Derived nominalizations seem to be somewhere in between
- Chomsky’s proposal was that derived nominalizations be formed in the lexicon, but that any regularities could be captured by *lexical redundancy rules*
- Strong vs. Weak Lexicalist Hypothesis
“Prolegomena”

- Halle’s final model

Diagram:

- List of morphs
- WFRs
- Filter
- Dictionary
- Syntax

Output

Phonology
Problems

- Lots of problems
- Process morphology
- Word-based form relations
  - blends (*smog, brunch*)
  - clipped compounds (*cheeseburger, heliport*)
  - acronyms (*laser, snafu*)
- WFRs and phonology
- The Filter will have to know to remove an infinite number of non-words, and handle the meanings of specialized words (*transmission*)
Problems

• More problems

• Back-formations: from the noun self-destruction we get the verb self-destruct, which in Halle’s model would come from the unattested verb *self-destroy

• Do we really need a list of morphemes and a dictionary? Can’t we get away with one or the other?

• Where is meaning associated with forms? (cran morphs)
## Problems

<table>
<thead>
<tr>
<th>refer</th>
<th>remit</th>
<th>resume</th>
<th>receive</th>
<th>reduce</th>
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<tbody>
<tr>
<td>defer</td>
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<td>deceive</td>
<td>deduce</td>
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<td>—</td>
<td>permit</td>
<td>—</td>
<td>perceive</td>
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</table>
Word-based morphology

• All of Halle's problems seem to come from starting with Item-and-Arrangement assumptions

• Aronoff (1976) proposed a “word-based” alternative for derivational morphology

• **Word Based Hypothesis**: All regular word-formation processes are word-based. A new word is formed by applying a regular rule to a single already existing word. Both the new word and the existing one are members of major lexical categories.

• Inflection and compounding are (for Aronoff) in the syntax
Word-based morphology

• Some consequences:
  • The bases of WFRs are words
  • These words must be existing words. Thus, a possible but non-existent word, according to the hypothesis, cannot be the base of WFR.
  • WFRs can take as a base only a single word, no more (e.g., phrases) and no less (e.g., morphs)
  • Both the input and the output of WFRs must be members of a major lexical category (noun, verb, adjective, preposition)
Word-based morphology

- No list of morphs: only free forms are listed
- WFRs are schemata for producing new words out of old words
  \[X_v \text{-}er]_N \text{ ‘one who } X\text{s habitually, professionally, etc.’} \]
- The output of a WFR can be stored in the dictionary
- Once listed in the dictionary, a word is able to pick up unique properties
- Completely predictable words formed by wholly productive WFRs don’t have to be listed (e.g., -ly)
Word-based morphology

- WFRs put various constraints on the base
  - Syntactic: -able only attaches to transitive verbs
  - Semantic constraints:
    - un- can’t combine with negative adjectives (unbad, unugly)
    - A puzzle: popular has two meanings (popular movie vs. popular front), unpopular has only one
Word-based morphology

- Phonological constraints

<table>
<thead>
<tr>
<th>Italian Word</th>
<th>Allophone</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>fortunato</td>
<td>sfortunato</td>
<td>‘lucky’</td>
</tr>
<tr>
<td>leale</td>
<td>sleale</td>
<td>‘loyal’</td>
</tr>
<tr>
<td>corretto</td>
<td>scorretto</td>
<td>‘correct’</td>
</tr>
<tr>
<td>graadevole</td>
<td>sgradevole</td>
<td>‘pleasant’</td>
</tr>
<tr>
<td>civile</td>
<td>*scivile/incivile</td>
<td>‘polite’</td>
</tr>
<tr>
<td>giusto</td>
<td>*sgiusto/ingiusto</td>
<td>‘just’</td>
</tr>
<tr>
<td>sano</td>
<td>*ssano/insano</td>
<td>‘healthy’</td>
</tr>
<tr>
<td>umano</td>
<td>*sumano/disumano</td>
<td>‘human’</td>
</tr>
<tr>
<td>onesto</td>
<td>*sonesto/disonesto</td>
<td>‘honest’</td>
</tr>
<tr>
<td>educato</td>
<td>*seducato/diseducato</td>
<td>‘well-mannered’</td>
</tr>
</tbody>
</table>
Word-based morphology

- Morphological constraints
  - English "-ity" attaches to ‘learned’ words
    - felicity, vivacity, *strongity, *widity
  - or words in -ic, -al, -able, -id
  - -hood attaches to native words
    - motherhood
  - -ness attaches to either
  - -ment attaches to word in be- or en-
    - encroachment, bewilderment
Word-based morphology

- **Negative conditions**
- **-al** doesn’t combine with nouns in **-ment** if the base is a free verb

<table>
<thead>
<tr>
<th>base</th>
<th>word</th>
<th>*wordal word</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>discern</td>
<td>discernment</td>
<td>*discernmental</td>
</tr>
</tbody>
</table>
Word-based morphology

- Word-based WFRs handle allomorphy
  
  \[
  \begin{align*}
  \text{electric} & \rightarrow \text{electrify} \\
  \text{electrify} & \rightarrow \text{electrification}
  \end{align*}
  \]

- Truncation rules
  
  \[
  \begin{align*}
  \text{lubricate} & \rightarrow \text{lubricant} \\
  \text{inflate} & \rightarrow \text{inflatant}
  \end{align*}
  \]

- These \textit{adjustment} rules modify the phonological form of a word, conditioned by the presence of certain morphemes

- Structure preservation
Word-based morphology

• Speakers are aware of WFRs, and can apply them ‘in reverse’
• For example, a WFR of English produces adjectives from verbs:

\[ X_v -able \] \text{A ‘such that it can be Xed’}

• We also have words with similar form and meaning that are (conta Halle) not formed by WFR

possible, tangible, legible, edible

• Given the rule, speakers can imagine what poss- and tang- might be, but they aren’t listed anywhere
Word-based morphology

- Word-based WFRs can also explain back-formations
- The word *babysitter* is formed by the rule:
  \[ [X_N Y_N]_N \] ‘a Y associated with Xs’
  like *anteater* and *cardholder*
- But, it superficially has the form of a word produced by the rule:
  \[ [X_v \text{-}er]_N \] ‘one who Xs habitually, professionally, etc.’
- The coinage of the verb *to babysit* is *motivated*, but not *predicted*