

## Derivational morphology

Today we turn from inflectional morphology to derivational morphology. After introducing the properties of derivation and some prominent derivational phenomena, we will look at some problems it raises. We will also continue our discussion about whether the descriptive differences between derivational and inflectional morphology are theoretically real. Finally, we'll take a look at syntactic derivations of derivational phenomena.

### 1 Overview

- Today we focus on **DERIVATIONAL MORPHOLOGY**, which creates new words rather than simply affecting the forms of words like **INFLECTIONAL MORPHOLOGY**.
  - We will start by looking at the properties of derivational morphology before returning to some prominent examples of it.
  - From there, we will look at some issues derivation raises for theories of morphology and return to the question of whether there is a significant theoretical difference between inflection and derivation.

#### 1.1 Defining derivation

- The properties that distinguish derivational processes from inflectional ones are essentially the inverse of the criteria we discussed last time.:

(1) *Criteria for derivational morphology:*

- a. Derivational morphology typically changes:
  - the category of the base word,
  - its meaning, and/or
  - its grammatical (*i.e.*, selectional) properties.
- b. Derivational morphology produces new words.

There are cases that do not clearly fit the inflectional–derivational divide described here. See Section 5.

- Thus, any change to a base word that changes any of the three criteria in (1a) counts as derivational.
- Several other properties of derivational morphology distinguish it from inflectional morphology.

See the handout from the previous lecture [for](#) examples.

- a. Because derivation can in principle change the **HEAD** of a word, and because heads determine the syntactic category and inflectional class a word belongs to, derivational morphology typically occurs closer to the root than inflectional morphology.
- b. Derivational morphology tends to be less productive than inflectional morphology; while the same inflectional processes usually affect words belonging to a single category, derivational morphology
- c. Unlike inflection, the syntactic context does not determine derivational morphology.

This last point depends on your theoretical assumptions; see Marantz's (1997) response to Chomsky 1970. We'll return to it in Section 3.

## 1.2 Derivational affixes are usually closer to the root

- As discussed in the lecture on morphological structures [☞](#), the head of a word determines the inflectional properties of a word.
- Since the head determines the inflectional properties of a word, inflection almost always occurs adjacent to this element.
- As such derivational affixes tend to be closer to the root than inflectional affixes:

(3) *profesionalizábamos* ‘we were professionalizing’

	Derivational affixes			Inflectional affixes		
profes-	-ion	-al	-iz	-a	-ba	-mos
profess-	-ion	-al	-ize	-ThV	-IMPF	-1PL
ROOT	N	N → A	A → V	TNS	AGR	

The fact that this word is a verb, the head of which is *-iz* ‘-ize’, determines that the word will take verbal inflection. This is despite the fact the derivational history of the word includes a noun and adjective.

- There are exceptions to this in some languages, even in Spanish. Some derivational suffixes, like *-dor* keep the theme vowel from the verb they attach to:

(4) a. *limpiar*:

limpi -a -r  
 √clean -ThV -INF  
 ‘to clean’

b. *limpiador*:

limpi -a -dor  
 √clean -ThV -er  
 ‘cleaner’

(5) a. *vender*:

vend -e -r  
 √drink -ThV -INF  
 ‘to sell’

b. *vendedor*:

vend -e -dor  
 √drink -ThV -er  
 ‘salesman’

- So this is just a tendency, but a strong one that has been used as a diagnostic.

## 1.3 Productivity

- A second property is that derivation tends to be less productive than inflection.
- We know derivational morphology must be rule-based.
  - Speakers can work out the meanings of morphologically complex words they’ve never heard before (presuming they know the morphemes involved).
  - Further, speakers can apply these rules to make new words.
- However, the application of these rules is often limited in various ways.
  - Whereas an inflectional process usually applies to all words of the same category, derivational processes might apply to only a subset.
  - One way to think about this is that derivational affixes are much more selective about the things they will attach to.
  - This can be limited by category, semantics, and even to an idiosyncratic set of words.

This is just the *legalize*/\**legalify* distinction again.

- Let's take the example of verbs in English:
  - Virtually all English verbs take the third person singular suffix *-s*.
  - Even if they don't take the regular past tense *-(e)d* suffix, they still have past tense forms of some sort.
- Compare this to nominalizing affixes like *-al*. It seems to attach to consonant-final verbs ending in a stressed syllable, but it does not attach to all such words.

- |        |           |        |             |
|--------|-----------|--------|-------------|
| (6) a. | refus-al  | (7) a. | *decod-al   |
| b.     | dispos-al | b.     | *insist-al  |
| c.     | recit-al  | c.     | *protest-al |

- The lack of derivational productivity is sometimes taken as evidence for storing words (rather than morphemes) in the lexicon.
  - The forms that don't exist simply aren't listed in the lexicon.
- But there are reasons to be careful with this line of thinking. Some derivational affixes are highly productive.
- Compare this to the oft-contrasted *-ity* and *-ness*.

This is one way of trying to encode the fact that productivity is limited.

- The suffix *-ity* forms nouns from adjectives, but it can only attach to a limited number of adjectives.
- Where *-ity* cannot attach, *-ness* is often found instead:

- |        |            |        |             |         |             |
|--------|------------|--------|-------------|---------|-------------|
| (8) a. | profundity | (9) a. | *deepity    | (10) a. | deepness    |
| b.     | sincerity  | b.     | *earnestity | b.      | earnestness |
| c.     | modernity  | c.     | *newity     | c.      | newness     |

- In fact, *-ness* can often be used in place of *-ity*, attaching to most adjectives even if they take other suffixes.

- Where both forms appear, the words sometimes differ in their meaning.

- |         |                                    |
|---------|------------------------------------|
| (11) a. | <i>generousness vs. generosity</i> |
| b.      | <i>reality vs. realness</i>        |
| c.      | <i>ethnicity vs. ethnicness</i>    |

There's a discussion in some of the literature about whether *-ity* blocks the use of *-ness*. It probably doesn't, though many words that take *-ity* don't usually appear with *-ness*.

- One has to be careful here though, since there is a temptation to state that certain words produced by non-productive (or semi-productive) affixes do not exist.
  - We have to walk a careful line between potential and existent words and what individual speakers know about their language.

- For instance, Fábregas and Scalise (2012: 87) discuss some nominalizations from Italian in the textbook, claiming that certain verbs lack nominalizations:

(12) *Some nominalizations in Italian:*

	<b>Verb</b>		<b>Nominalization</b>	<b>Rule</b>
a.	<i>pettinare</i> 'to comb'	→	<i>pettinatura</i> 'hair-do'	V+ <i>tura</i>
b.	<i>profanare</i> 'to profane'	→	<i>profanazione</i> 'profanation'	V+ <i>zione</i>
c.	<i>allontanare</i> 'to remove'	→	<i>allontanamento</i> 'removal'	V+ <i>mento</i>
d.	<i>indovinare</i> 'to guess'	→	∅	
e.	<i>assaporare</i> 'to taste'	→	∅	

- They suggest that *indovinare* 'to guess' and *assaporare* 'to taste' do not have nominalizations. However, it is easy to figure out what they would look like:

– Drop the infinitival *-re* suffix and add *-tura*, *-mento*, or *-zione*:

- *indovinatura*
- *indovinanza*
- *indovinamento*
- *assaporatura*
- *assaporazione*
- *assaporamento*

- Now a funny thing happens if you google these. . .

I had to know.

- *Indovinamento* and *indovinanza* are both listed in dictionaries (a couple said the words are rare), each with over 10,000 hits.
- There were also many thousand hits for *assaporamento*. *Assaporazione* yielded a few hundred hits.
- *Indovinatura* got only 71 hits; *assaporatura* yielded no hits.

I found a dictionary entry that listed *assaporamento* as a definition of *assaporazione*.

- Now, I am not an Italian speaker, and I have no idea whether Italian speakers usually know these words or not.

- However, it's important to remember that Italian speakers know the rules of their language and know how to apply them.
- This goes for morphology as much as it does for syntax or phonology.

Some usual caveats here: This was not a formal corpus search, and I have no way of knowing how commonly these words are used.

- Even if a certain speaker hasn't heard the word before, or hasn't put the morphemes together, speakers still know how to put the pieces together and figure out the meaning of a word they haven't heard before.

- Morphology is generative and rule-based, and so we shouldn't be surprised when speaker apply those rules in new ways.

- A really interesting case in point was a discussion I found on [Yahoo! Answers](#) where a student asked if the word *assaporazione* is a word or not.
  - The student used it during an examination, and the examiner joked that he invented a new word.
  - As one of the respondents points out, there's another word that expresses the meaning (*degustazione* 'sample, tasting'), but they also point out that people coin new words all the time.
- Another case of limited productivity can be found with Latinate bound roots in English used to form verbs

Unfortunately, I have no way of determining whether this was a native speaker.

(13) *Bound roots:*

	<i>-ceive</i>	<i>-mit</i>	<i>-struct</i>	<i>-tain</i>
<b>ad-</b>	<i>accept</i>	<i>admit</i>	— <sup>1</sup>	<i>attain</i>
<b>con-</b>	<i>conceive</i>	<i>commit</i>	<i>construct</i>	<i>contain</i>
<b>de-</b>	<i>deceive</i>	( <i>demit</i> )	<i>destroy</i>	<i>detain</i>
<b>main-</b>	—	—	—	<i>maintain</i>
<b>ob-</b>	—	<i>omit</i>	<i>obstruct</i>	<i>obtain</i>
<b>per-</b>	<i>perceive</i>	<i>permit</i>	—	<i>pertain</i>
<b>re-</b>	<i>receive</i>	<i>remit</i>	—	<i>retain</i>
<b>sub-</b>	— <sup>2</sup>	<i>submit</i>	( <i>substruct</i> )	<i>sustain</i>

Parentheses indicate listing in dictionaries; <sup>1</sup>cf. (*asstructive*); <sup>2</sup>cf. *susceptible*.

- As you can see, there are many gaps in this chart; it is not possible to combine any prefix with any root.
- This may well have to do with the meanings of these things. Some lack of productivity can be explained by the meanings of things alone.
- For example, the suffix *-able* can derive adjectives from verbs that assign agent roles fairly productively, but it does not usually attach to unaccusative verbs:

- (14) a. \*This couch is really sittable.  
 b. \*They think that, despite the weather, the train will be arrivable.  
 c. \*Each child seemed very smilable.

- This is due to what *-able* means – it just can't attach to verbs with the wrong argument structure.

A thought experiment for you syntacticians: If the argument structure of a verb is determined in part by  $v^0$  and not just  $V^0$ , what is *-able* actually combining with?

#### 1.4 Summary

- So far, I've covered the first two elements in (2): The relative positions of inflectional and derivational affixes, and issues with productivity.
- We still need to talk about the relation to syntactic context (as usual, I'll start talking about syntactic approaches at toward the end of the lecture).
- First, though, I want to do a bit more of a thorough description of various derivational processes.

## 2 Derivational phenomena

- Fábregas and Scalise (2012: 89–98) discuss a number of derivational phenomena in the text.
- You should be familiar with these, but I want to review a couple here to make sure we're all on the same page.

### 2.1 Nominalization

- **NOMINALIZATIONS** are some of the most well-studied morpho-syntactic phenomena.
  - Most work focuses on deverbal nominalizations (that is, changes from verbs to nouns). They come in several varieties.

Nominalization has played an important role in our understanding of syntax since at least Chomsky 1970.

- One of the most interesting cases are **EVENT NOMINALIZATIONS**, which keep the eventive structure of the verb that has been nominalized and often have very transparent semantics:

- The noun *examination* in (15b) is derived from the verb *examine*, as in (15a).
- Both the verb and the derived noun have the same thematic structure (there's an agent and a patient).
- The conceptual meaning of the verb and the noun are essentially the same.
- There are two differences: Nouns can't take tense (so there is no tense in (15b)), and nouns can't check Case, so the complement of *examination* cannot be a DP.

This is one of those cases where the derivation doesn't obviously change the thematic structure.

Also, the modifiers have to be different categories: Adverbs adjoin to verbs, while adjectives adjoin to nouns.

- (15) a. [TP The doctor carefully examined her patient.]  
 b. [DP the doctor's careful examination of her patient]

- These have been very important because they tell us that nominal structures are very similar to clausal structures.
  - Whatever the verb *examine* does in a clause is the same as what *examination* does in an eventive DP.
- Nominalizations, come in other forms, though. There are also **OBJECT** and **RESULT NOMINALIZATIONS**.
  - These sort of nominalizations denote the output of the result or the process denoted by the verb they are derived from.
  - As shown in (16b), result nominalizations are not necessarily morphologically different from event nominalizations.

- (16) a. There was a painting on the wall.  
 b. The examination will take place in Sidney Smith.

- A lot of work goes into trying to understand what the differences between these kinds of nominalizations actually is.
  - These seem to lack the argument structure that event nominalizations do, since they don't denote events that people participate in.
  - But they are usually derived by the same morphology. One question, then, is how the same morphology results in different types of nominalizations.

Alexiadou's (2001) book contains an excellent set of cross-linguistic case-studies.

One answer is that nominalization doesn't target words but different amounts of syntactic structure.

## 2.2 Verbalization

- Another common process is deriving verbs from other categories. These are sometimes known as **VERBALIZATIONS**.
- This process has also played a significant role in syntactic theory when looking at the **CAUSATIVE–INCHOATIVE** alternation.
- For example, some verbs can be derived from adjectives with the suffix *-en*, meaning 'become ADJ'.

(17) a. *harden*                      b. *whiten*                      c. *flatten*

- Many of these verbs can be used either as intransitives (the inchoative reading) or as transitive (the causative reading):

(18) a. The glass hardened.  
       'The glass became hard.' (*Inchoative*)  
       b. Sally hardened the glass.  
       'Sally caused the glass to become hard.' (*Causative*)

In modern theories, this is often explained by assuming that causatives have an extra head that introduces an agent argument; e.g.,  $v^{\circ}$  or  $\text{Voice}^{\circ}$ .

- The causative verbalizations are particularly interesting to syntacticians because they show a systematic ambiguity when modified by the adverb *again*:

(19) Sally flattened the paper again.  
       a. 'At some point in the past, Sally caused the paper to become flat, but it's not now so she once more causes the paper to be flat.'  
       b. 'At some point in the past, the paper had been flat, but now it's not. Sally caused the paper to again become flat.'

Repetitive reading

Restitutive reading

- It appears that *again* can either modify the state denoted by the adjective or causation event denoted by the verb.

## 3 Conversion

- So far we have looked at cases where there is some phonological change to a base to show that it has undergone some derivational process.
- Still, it is clear that it is possible to change the category of the word without affecting the phonological form of the base in any way.

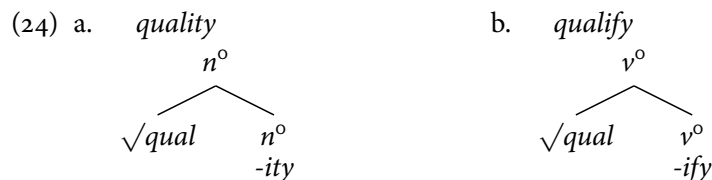
- This is known as **CONVERSION** or, less neutrally, **ZERO DERIVATION**.
- This is a phenomenon where a single word has uses in multiple categories:
  - (20) a. Harvey answered<sub>V</sub> the question using pure reason<sub>N</sub>.
  - b. Harvey reasoned<sub>V</sub> his way to an answer<sub>N</sub>.
  - (21) a. Sally hugged<sub>V</sub> the llama.
  - b. Sally gave the llama a hug<sub>N</sub>.
  - (22) a. The pie began to cool<sub>V</sub>.
  - b. Many people enjoy cool<sub>A</sub> summer nights.
  - (23) a. There were several wealthy<sub>A</sub> people at the party.
  - b. The wealthy<sub>N</sub> should pay their fair share.
- This categorical ambiguity can appear puzzling, depending on the point of view one takes. Take the example of *hug*:
  - Is the noun a nominalization of the verb? Or is the verb a verbalization of the noun?
  - If we assume that full words always feed derivational processes (and some people do), there is no clear way to answer this question.
- One solution is to say that there are just two words in speakers' lexicons, *hug*<sub>V</sub> and *hug*<sub>N</sub>.
  - There is some sense, though, that this is not a good solution.
  - It goes against the intuition that these words are related somehow (to hug somebody means to give them a hug).
- One lexicalist response is to assume that there are in fact separate lexical entries, but that they are linked somehow.
  - Lexical rules could link phonological and conceptual and phonological material between the entries.
  - Notice, though, that by having separate lexical entries, we don't have true derivation; they are linked by some other means (sharing material, hap-penstance).
- The view from Distributed Morphology is to maintain that they are derivationally related, but to reject the premise that one must be derived from the other.
  - DM assumes that *all* lexical words (as opposed to functional words) are derived from roots that lack an inherent category feature.
  - The only way for a root to get a category feature is to combine it with an affix bearing such a feature:

I couldn't think of any good cases of Adjective–Noun conversion that were not *the*+ADJ. Maybe you can?

We can look at the history of the words, which will tell us how they came into existence of time. But this cannot tell us what speakers encode in their grammars.

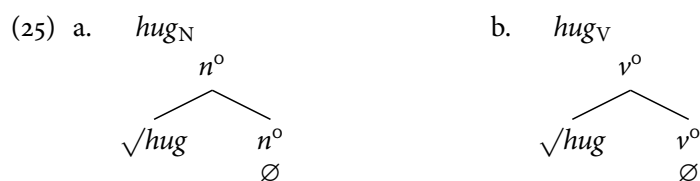
That's not to say you shouldn't do it for words that are obviously unrelated, like the verb *rear* 'to raise' and the adjective *rear* 'being behind'





By now I reckon we've seen enough evidence to know that *-ity* and *-ify* are suffixes in English. That makes  $\sqrt{qual}$  an isolable, recurrent root in these words.

- We have already been assuming that derivational affixes bear category features which can determine the category of an entire word when that affix is the head.
- This same logic is applied to cases like *hug*:
  - Both the noun and the verb *hug* are derived from the same root  $\sqrt{hug}$ .
  - We maintain the assumption above that  $\sqrt{hug}$  does not have a category.
  - Each word takes a null affix that determines the category of the resulting word; they share a root, but one is not derived directly from the other.



The little-*n* and *v* heads are yet another use of lower case letters. It remains unclear if this  $v^\circ$  is the same as the  $v^\circ$  in syntax.

- This is no different than how DM usually determines the category of a word.
- Notice, though, that this goes back to an alleged property of derivational morphology given in (2c): Derivational morphology is not meant to be sensitive to the syntax.
  - I think this follows only in truly lexicalist theories of morphology, where derivation is done entirely in the lexicon.
  - On constructionist approaches like the one sketched just above, the category of a word is determined entirely in the syntax
- Sensitivity to syntactic context is meant to be a property of inflectional morphology, but if the constructionist perspective is correct, then it cannot be.

In fact, this follows from our previous assumption that a head determines the category of the word. We just admit null heads and acategorical roots.

The idea that category is determined in part by where a root appears can be traced all the way back to Chomsky 1970.

#### 4 Some constructionist derivations

- For the sake of discussion, I wanted to look at at least one case study showing how derivation works in the syntax.
- We'll look at deverbal nominalization, following Harley's (2009) discussion in DM.

Harley's paper is available on her website [here](#). I've simplified a few assumptions about Case assignment.

#### 4.1 Background assumptions

- Harley couches her analysis in Distributed Morphology (Halle and Marantz 1993).

(26) *Some key assumptions:*

- Morphemes are independent entities that occupy terminal nodes of a hierarchical structure built by the syntax with normal syntactic processes.
  - The syntactic terminal nodes are fully specified for featural (and semantic) content. Each terminal node receives a pronunciation after the syntax is finished.
- As noted in the previous section on conversion, the assumption is that all lexical words are based on roots that have no inherent category.
    - Category is determined by combining with functional elements that have category features.
    - These categorizing heads usually have a label with a lower-case version of the category they correspond to: verbalizing heads are  $v^{\circ}$ , nominalizing heads are  $n^{\circ}$ , adjectivizing heads are  $a^{\circ}$ .
  - As mentioned in the sidebar, it remains unclear whether the  $v^{\circ}$  of DM is the same as the  $v^{\circ}$  used for voice and argument structure in syntax.
    - Harley comes to the conclusion that they should be distinct in the course of her paper.
    - Following this, I'll keep the DM convention of labeling the verbalizing head  $v^{\circ}$ .
    - The head responsible for voice, assigning agent roles, and checking accusative Case will be labeled  $\text{Voice}^{\circ}$ .
    - What is usually thought of as  $V^{\circ}$  is the equivalent of the root which becomes a verb by virtue of combining with  $v^{\circ}$ .

This means that the way each morpheme is pronounced is determined after they have been arranged by the syntax. In principle, none of the category morphemes have a pronunciation until after Surface Structure/Spell-Out. We will take a much more serious look at this on 25 February.

This is what Kratzer (1996) called the head, so there is precedent for this.

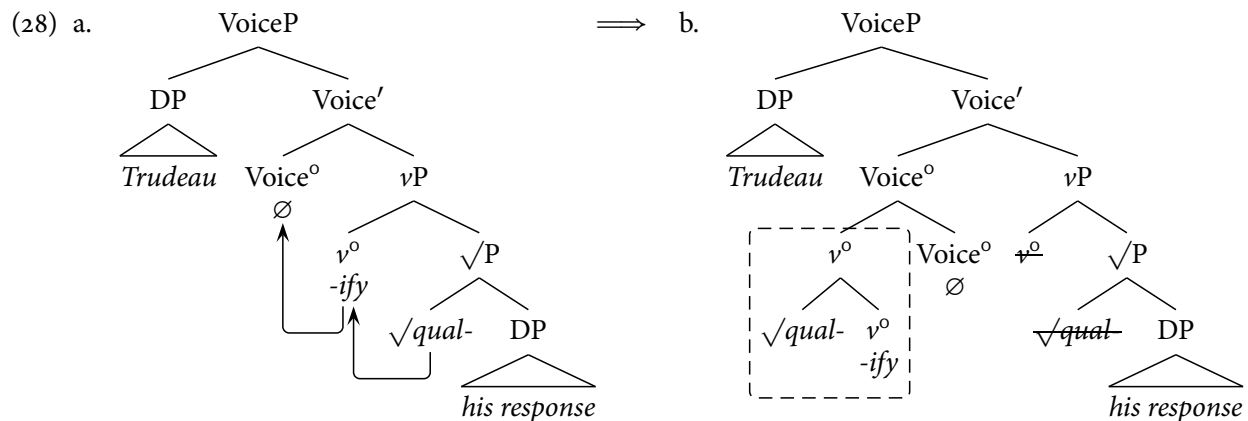
#### 4.2 Deriving verbs

- To borrow an example from earlier, let's start with the example of *qualify*.

(27) Trudeau qualified his response.

- In this word,  $\sqrt{\text{qual}}$  is the root, the verbalizing suffix is *-ify*, and the assumption is that verbs move to  $\text{Voice}^{\circ}$  in English.
  - Thus, the root head-moves to  $v^{\circ}$  to become a verb, and then  $v^{\circ}$  moves to  $\text{Voice}^{\circ}$ :
  - This head movement derives the structure for *qualify* postulated in (24b), which can be seen in the boxed part of (28b).

That is to say, there's a system underlying these structures.



4.3 Nominalization

- In her paper, Harley discusses the nominalization of the word *nominalization*, so let's walk through that.

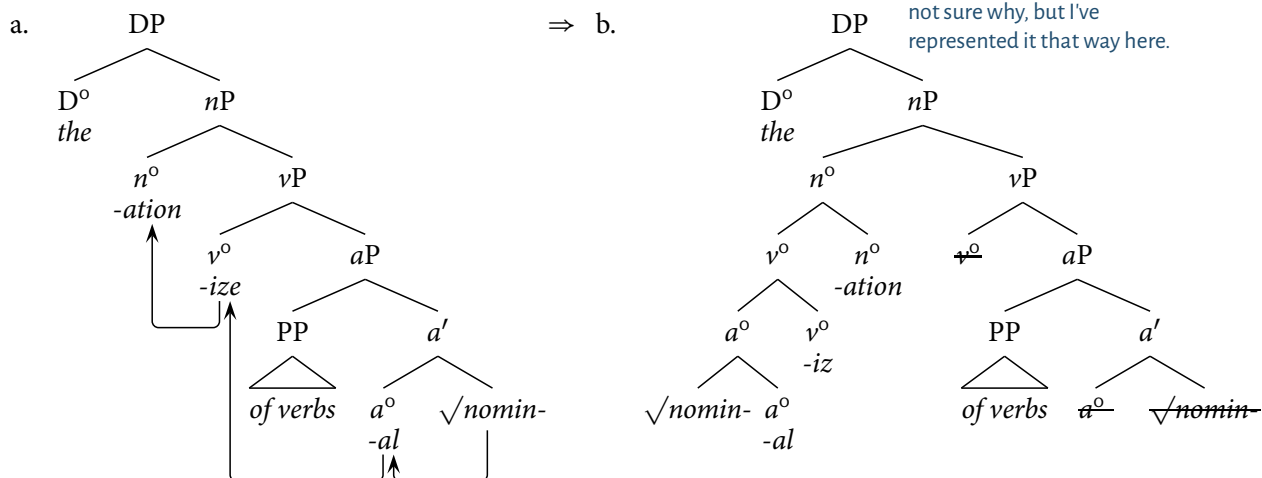
(29) the nominalization of verbs

- First, let's think about the morphemes in *nominalization*

- (30) a. *-ation* derives a noun from the verb *nominalize*.  
 b. *-ize* derives a verb from the adjective *nominal*.  
 c. *-al* is a suffix creating adjectives.  
 d. *nomin-* is left as the root.

There's a verbalization as well!  
 cf. *tid-al*, *accident-al*, *function-al*  
 cf. *nomin-ate*.

(31) Derivation of 'the nominalization of verbs' (Harley 2009: 336):



Harley assumes the PP is an argument of the adjective. I'm not sure why, but I've represented it that way here.

- On Harley's (2009) view, part of what distinguishes nominalizations from true verbs is that they do not nominalize the Voice° head.

- On the assumption that it is the (active) Voice° head that checks accusative Case, the lack of a Voice° head here explains why *nominalization* cannot take DP complements.

See the discussion of the examples in (15).

#### 4.4 Verbalization

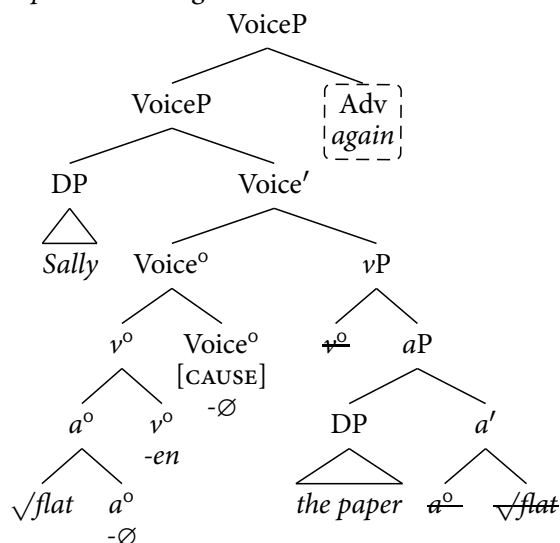
- Finally, let's revisit the repetitive–restitutive alternation discussed in (19) and repeated here as (32):

(32) Sally flattened the paper again.

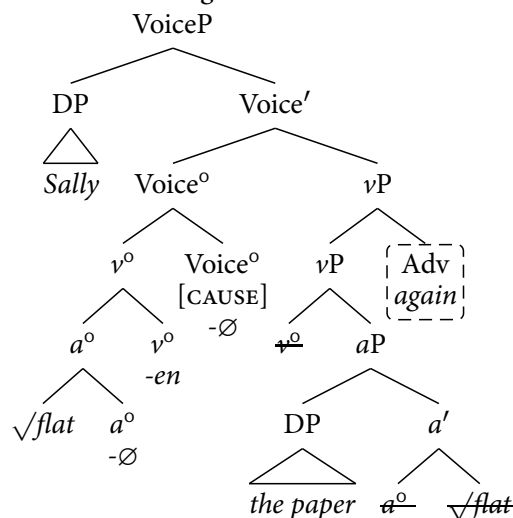
- a. 'At some point in the past, Sally caused the paper to become flat, but it's not now so she once more causes the paper to be flat.' Repetitive reading
- b. 'At some point in the past, the paper had been flat, but now it's not. Sally caused the paper to again become flat.' Restitutive reading

- As mentioned above, there's not actual ambiguity in the verb. Most people assume that there is some syntactic ambiguity in where *again* attaches.
- Putting into Harley's model would look something like this:

(33) a. *Repetitive reading:*



b. *Restitutive reading:*



- The restitutive reading is derived by attaching *again* to the part of the tree that means ‘the paper become flat’
- The repetitive reading is derived by attaching *again* to the part of the tree that means ‘Sally cause the paper to become flat’.

See von Stechow 1996 for the original version of this analysis.

### 5 The distinction between inflection and derivation

- Now that we've looked at both inflection and derivation, it's worth taking stock of what the apparent differences are and whether there is a deep theoretical reason for making the distinction.
  - We can classify the properties that various kinds of affixes have and divide those affixes into derivational and inflectional affixes.
  - The question is whether the surface-level classification we came up with actually maps onto some deep

- Even Booij (1996) points out that some linguists see the inflectional–derivational distinction as a cline between two extremes rather than a categorical distinction.
- I raise this question since, as you may have noticed, the way we derive derivational morphology in the above system looks a lot like how I suggested deriving inflectional morphology in the previous lecture:
  - Functional heads bear affixes/morphemes which roots have to move to.
  - Whether those heads bear inflectional or derivational affixes is immaterial to this process.
- Below we will look at some challenges for the distinction between inflectional and derivation morphology.

For a main point of comparison, see Section 2.1 on Spanish verbs in the Inflectional morphology [handout](#).

Indeed, DM rejects the distinction entirely as being theoretically unmotivated. What matters in DM is the derivational history of a morpheme and whether it is present in the syntax.

### 5.1 Some inflectional affixes give rise to changes in meaning

- Last time, I noted that one issue with inherent inflection is that in many cases it appears to affect the interpretation of the sentence.
  - Plural nouns do not mean the same thing as singular nouns.
  - The tense of a verb matters for the interpretation of the clause that it's in.
  - In other words, the inflectional form of a word often corresponds to some semantic distinction.
- Usually, though, inflectional affixes do not change the core meaning of a word, so this is not considered an issue.
- However, there are some cases where plural morphology *does* affect the meaning of a word:

- (34) a. Harvey only cares about his looks.  
 b. The students appeared in good spirits.  
 c. The goods were distributed to their buyers.  
 d. That child has excellent manners.

- Inflectional morphology is not supposed to be able to affect the meanings of words in this way.

### 5.2 Hybrid categories

- Related to these cases are so-called HYBRID categories.
- One of the most notorious of these is English *-ing*, which forms present participial verbs as well as deverbal nouns and adjectives.

- (35) a. The children were singing<sub>V</sub>.  
 b. The incessant singing<sub>N</sub> drove me nuts.  
 c. The singing<sub>A</sub> children finally left.

- The *-ing* suffix is probably the most productive verbal suffix there is (along with *-s*), and it appears to lead a double life as inflectional and derivational suffix.
- Passive participle morphology plays a similar role, deriving adjectives from verbs, though it is slightly less productive:

- (36) a. The raccoon had been forgotten.  
 b. The raccoon devoured the forgotten pizza.
- (37) a. The children had been excited by the raccoon.  
 b. Some excited children ate pizza.

As far as I know, it does not even induce any changes in any base it attaches to.

- There are different ways of thinking about this: Maybe there are multiple *-ing* suffixes, or perhaps these affixes somehow permit rampant conversion.
  - But it's so systematic that having several homophonous affixes feels like a theoretical cop-out.

There's probably a squib in here somewhere.

### 5.3 Appreciative affixes

- Fábregas and Scalise (2012) point out that Spanish appreciative affixes have mixed inflectional and derivational properties.
- There are several affixes that fall into this category:
  - Diminutives: *-it*, *-ill*, *-ic*
  - Augmentative: *-ón*, *-ot*, *-az*
  - Pejorative: *-uch*
- Let's focus on *-it*, which attaches to words of various categories:

- |   |  |
|---|--|
| <p>(38) a. perr -o<br/>         dog -DES<br/>         'dog (N)'</p> <p>b. pequeñ -o<br/>         small -AGR<br/>         'small (A)'</p> <p>c. despaci -o<br/>         slow(ly) -DES<br/>         'slowly (Adj, Adv)'</p> | <p>(39) a. perr -it -o<br/>         dog -DIM -DES<br/>         'small dog, puppy'</p> <p>b. pequeñ -it -o<br/>         small -DIM -AGR<br/>         'very small, tiny'</p> <p>c. despac(i) -it -o<br/>         slow -DIM -SUFF<br/>         'slowly'</p> |
|---|--|

- The suffix *-it* has several inflection-like properties:
  - Attaching *-it* does not change the category of the word it attaches to.
  - It is very productive, attaching to virtually all nouns, most adjectives, and some adverbs.
  - The meanings derived are very transparent and predictable.

The rules about theme vowels/gender are a little difficult. It keeps the theme vowel if the original theme vowel is *-o* or *-a*, but follows *-e*.

- However *-it* shows many of the properties of derivation:
  - It occurs closer to the root than other (nominal) inflectional affixes (though outside derivational affixes):

(40) *corredorcitos*

corre- -dor -cit -o -s  
run -er -DIM -DES -PL  
'little runners'

Though there is a clear problem here in that the theme vowel for the verb is clearly stuck inside this word...

- It doesn't participate in agreement in any way (e.g., an adjective modifying a diminutive noun does not have to be diminutive).
- They can give rise to idiosyncratic meanings. While this is not too common with *-it*, *-ill* forms different words frequently

(41) a. *burrito*

burr -it -o  
donkey -DIM -DES  
'burrito (the food)'

(42) a. *bolsillo*

bols -ill -o  
bag -DIM -DES  
'pocket'

b. *cochecito*

coche -cit -o  
car -DIM -DES  
'stroller'

b. *mantequilla*

mantec -ill -a  
lard -DIM -DES  
'butter'

- To take the issue a step further, Katamba and Stonham (2006: 227–229) note that while there are languages like English where diminutive and augmentative morphology are clearly derivational, there are others where it seems to interact with the inflectional system.
- English diminutive suffixes are not particularly productive:

(43) *-y*

a. *dog* → *doggy*  
b. *desk* → \**desky*

(44) *-ling*

a. *duck* → *duckling*  
b. *boot* → \**bootling*

(45) *-let*

a. *book* → *booklet*  
b. *car* → \**carlet*

Both *-y* and *-let* are fairly productive, but they cannot attach to any noun the way you would expect inflectional morphology to.

- This can be compared to a language like Fula (a Niger–Congo language of west and central Africa), where the inflection of a noun interacts with whether it is diminutive or augmented:

(46) a. laam -do  
chief -DES  
'chief'

c. laam -ɲgel  
chief -DIM  
'petty chief'

e. laam -ɲga  
chief -AUG  
'mighty chief'

b. laam -ɓe  
chief -DES.PL  
'chief'

d. laam -kon  
chief -DIM.PL  
'petty chiefs'

f. laam -ko  
chief -AUG.PL  
'mighty chiefs'

The issue here is that the diminutive/augmentative suffixes seem to combine with plural, which is generally considered to be inflectional.

- Katamba and Stonham (2006) suggest this means that morphology that is derivational in one language can be inflectional in another and that cross-linguistic comparisons may be difficult.
  - If you believe that inflectional and derivational morphology are fundamentally different things, then the idea of having an affix that is at once inflectional and derivational is simply not possible.
  - The only way of reconciling this is to assume that appreciative affixes are inflectional in some languages but not others.
- But the other way of looking at this is to reject the idea that there is a meaningful distinction between inflection and derivation.
  - The problem that Katamba and Stonham illustrate with Fula is only a problem if the proposed distinction is a real one.
  - If there is no fundamental distinction between inflection and derivation, then we shouldn't really be surprised to see diminutive affixes also expressing inflectional information like number.

Though this number morphology is a case of inherent inflection in Booij's (1996)'s sense.

#### 5.4 Summary

- The inflectional–derivational distinction has been a central point of discussion in morphology for a long time, but it is not clear whether the distinction is one that has clear theoretical grounding.
- Nonetheless, knowing the distinction between derivational and inflectional morphology is an important part of being a linguist.
  - Even if you don't think the distinction is real, we still use these terms to talk about various affixes and processes.
  - You are likely to meet linguists who assume this distinction is real. This is how morphology has been discussed since the 1950s.

#### Terms

**conversion** Morphological derivation that has no phonological effect on the base word.

**derivational morphology** Morphological processes or elements responsible for forming new words.

**head** The morpheme in a word that determines the grammatical properties of that word, including its syntactic category and its inflectional properties.

**inflectional morphology** Morphological processes or elements that change the form of an existing word.

**nominalization** Derivational processes that produce nouns from verbs and adjectives.

**zero derivation** An analysis of conversion that assumes it is derived with null affixes.



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