Morphology

Words, their parts and their classes

Morphology – an internal branch

Morphology is the branch of linguistics that studies *the structure of words*.

Words are structured both in terms of form and in terms of meaning. The first type of structuring has relevance for syntax, the second for semantics and lexicology.

Morphology is a separate level of linguistic patterning comprising two subsystems which may share some of the means of encoding (exponents): grammatical (inflectional) and lexical (derivational) morphology .

WORD

Orthographic – *babysitter* vs. *jack-of-all-trades*

Phonological – [hiz] – *he is, he has, his* (pause and stress)

Semantic – *travel agency; try out*

Morphosyntactic – *work, works, worked, working*

Grammatical – round (n, adj, adv, prep, v)

Word vs. Lexeme

Morphemes (general)

Morphemes occur in speech only as constituent parts of words, not independently, although a word may consist of a single morpheme. There is a fundamental functional distinction between a morpheme and a word.

Monomorphemic words (simple) are distinguished from polymorphemic or complex words.

Morpheme

The **morpheme** is the smallest **meaningful** unit of language. (lexical and grammatical meaning)

A morpheme must have a meaning, and it is the smallest unit of meaning (the smallest sound-meaning union which cannot be further analyzed into smaller meaningful units).

Morphemes - properties

The properties which uniquely differentiate morphemes from other linguistic units are these:

A morpheme is the smallest unit associated with a meaning (independent, e.g. -*man* or contributory e. g. -*ly* in *largely*).

Do all these words *car, care, carpet, cardigan, caress, cargo, caramel* contain the morpheme *car*? How do we identify morphemes?

Morphemes - properties

Morphemes are recyclable units. One of the most important properties of the morpheme is that it can be used again and again to form many new words (lexical and related if derivational morphemes and morphosyntactic/grammatical and unrelated, if inflectional).

In examples *cardigan* and *caramel* is *car* a morpheme? One way of finding out would be to test whether the remaining material can be used in other words, i.e. whether it is (an)other morpheme(s).

Morphemes - properties

-*digan* and -*amel* do not meet our first definition of a morpheme, they are not contributors of independent meanings, nor are they recyclable in the way in which the morphemes *care+ful*, *un+care+ing*, *care+give+er* are.

Recyclability can be deceptive, as it is in the *case of carrot, carpet, caress, cargo*.

Though all morphemes can be used over and over in different combinations, non-morphemic parts of words may accidentally look like familiar morphemes.

Morphemes - properties

The test of what makes a sequence of sounds a morpheme is based on the segment's ability to convey independent meaning, or add to the meaning of a word. In some cases, a combination of tests is required. If we try to parse the word *happy*, we can easily isolate *happ-* and *-y* as morphemes. The latter adds to the meaning of words by turning them into adjectives. But what about *happ*? - e.g. *mishap, happen, hapless, unhappiness*. The recyclability of *hap(p)*- in the language today confirms its status as a morpheme, even without the etymological information.

Morpheme ≠ Syllable

Morphemes must not be confused with syllables. A morpheme may be represented by any number of syllables, though typically only one or two, sometimes three or four.

Syllables have nothing to do with meaning, they are units of pronunciation. In most dictionaries, dots are used to indicate where one may split the word into syllables. A syllable is the smallest independently pronounceable unit into which a word can be divided.

Morphemes may be less than a syllable in length. *Cars* is one syllable, but two morphemes.

Morpheme ≠ Syllable

Some of the longest morphemes tend to be names of places or rivers or Native American nations, like *Mississippi*, *Potawatomi*, *Cincinnati*. In the indigenous languages of America from which these names were borrowed, the words were polymorphemic, but the information is completely lost to most native speakers of English.

Morphemes (summary of properties)

The four essential properties of all morphemes:

1) they are packaged with a meaning;

2) they are constantly recycled;

3) they may be represented by any number of syllables;

4) morphemes may have phonetically different shapes in different contexts

Morpheme

The word *lady* can be divided into two syllables (la.dy), but it consists of just one morpheme, because a syllable has nothing to do with meaning.

The word *disagreeable* can be divided into five syllables (dis.a.gree.a.ble), but it consists of only three morphemes (dis+agree+able).

The word *books* contains only one syllable, but it consists of two morphemes (book+s) (Notice: the morpheme *–s* has a grammatical meaning [Plural])

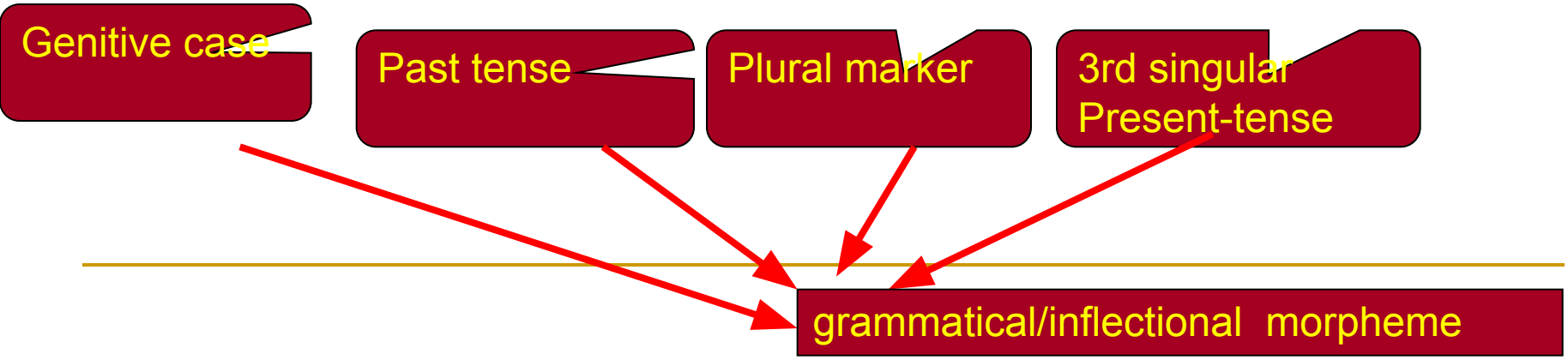
The internal structure of words

Lexical or Grammatical

Words can have an internal structure, i.e. they are decomposable into smaller meaningful parts. These smallest meaningful units we call morphemes.

read+er re+read en+able dark+en

Mary+'s print+ed cat+s go+es



Morpheme, Morph, Allomorph

books /-s/
pigs /-z/
boxes /-iz/

two different spelling forms, and three different phonological forms, but these different forms represent the same grammatical meaning [Plural])

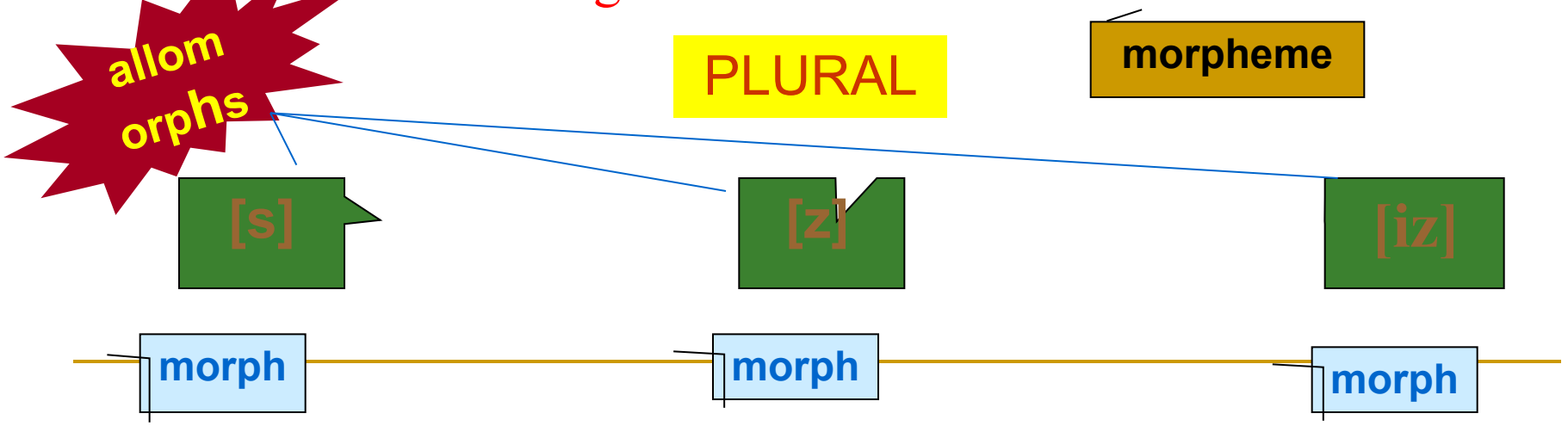
A **morph** is a physical form representing a certain morpheme in a language.

Sometimes different morphs may represent the same morpheme; i.e., a morpheme may take different forms. If so, they are called **allomorphs** of that morpheme.

Complementary Distribution

Allomorphs are morphs in *complementary distribution (receive vs. reception)* or *in free variation (-ity* vs. *-ness, e.g. uniformity vs. happiness*). They are never found in identical contexts, or in overlapping distribution. The choice of allomorph used in a given context is normally based on the properties of the neighboring sounds, the lexical item itself or morphological conditions.

Example: The third person singular verb suffix and the plural nominal suffix *–s* in English



Allomorphy

Allomorphy affects both free and bound morphemes. A great part of allomorphy is phonologically conditioned, but there are also cases of lexically and morphologically (grammatically) conditioned allomorphy. In derivational affixation, the choice of a specific affix among numerous potential choices is an instance of lexically conditioned allomorphy: *happy – ity, -ation, -hood,* -ment = happi*ness*

Allomorphy

Allomorphy affects both roots and affixes:

receive but *reception* (root allomorphy)

dwarf but *dwarves* (root allomorphy)

buses [iz] but *nooks* [s] (phonetically conditioned allomorphy of an inflectional affix {pl})

An analogy: Chameleon

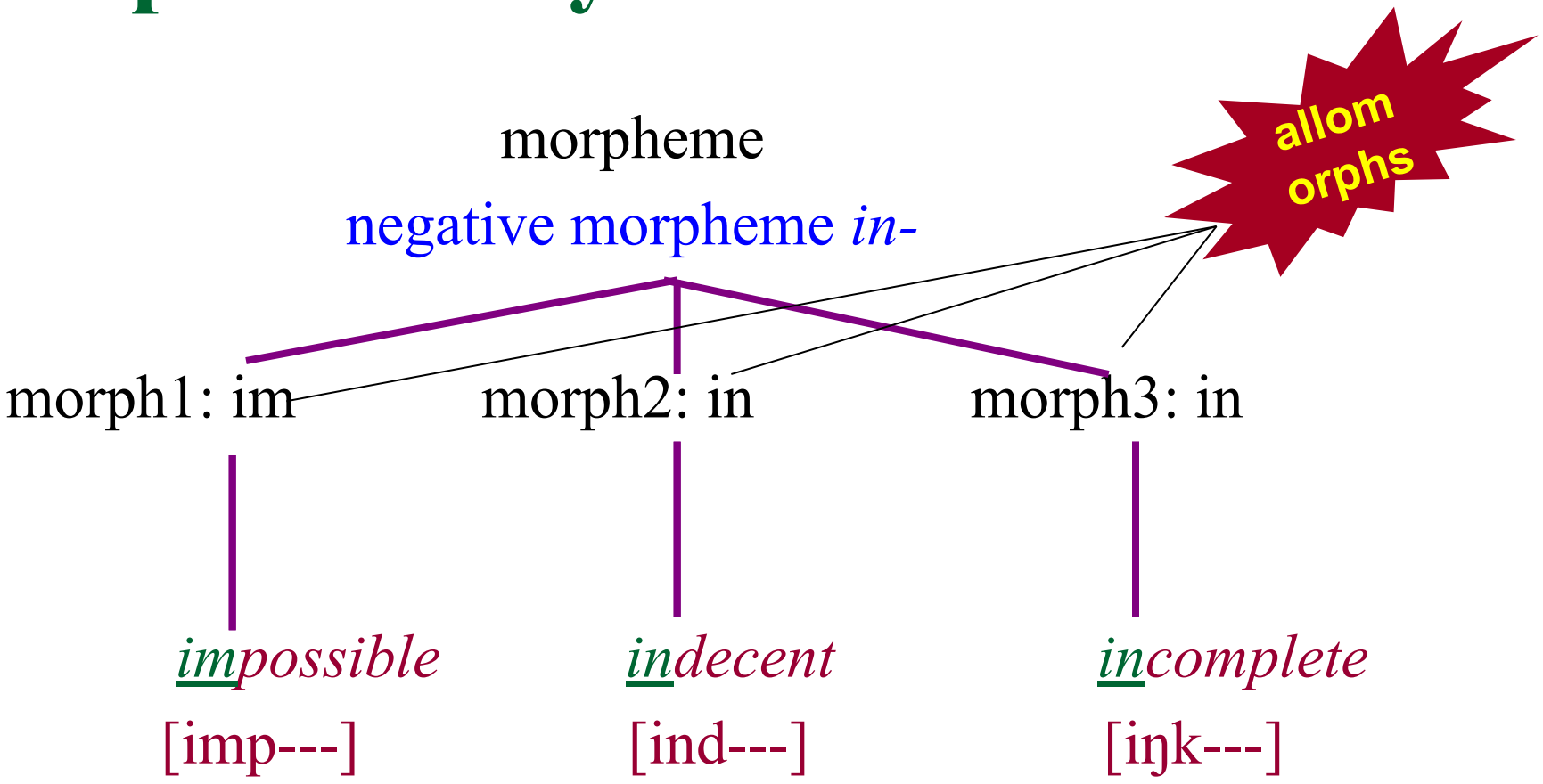
Chameleon

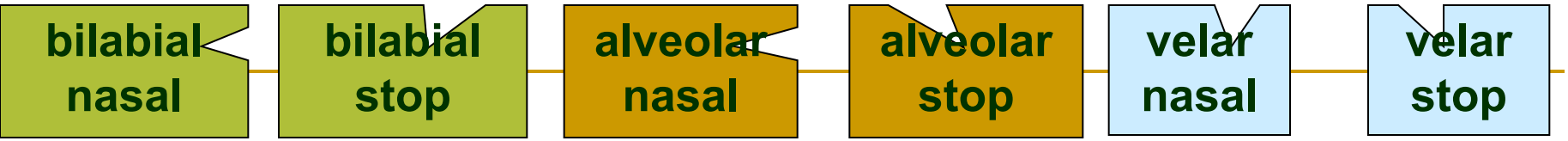
The skin color is determined by the color of the nearby environment.

Two different skin colors cannot occur in the same environment.

Although a chameleon's skin color may change, the essence remains unchanged. It is not grass when its skin color is green.

Complementary Distribution





Conditioning factors for allomorphy

Phonological conditioning - the three phonetic variants of plural morpheme in English - /s/, /z/ and /iz/

Lexical – In lexical conditioning, the choice of allomorph depends on the particular word the morpheme is attached to. A typical example of this is the /n/ (*-en*, orthographically) used to mark the plural form of the noun *ox*.

Morphological/Grammatical – the choice of allomorph may be grammatically conditioned, i.e. it may be dependent on the existence of an established grammatical class: a. walk walked vs. b. weep wept/ sweep swept vs. c. shake shook/take took

Suppletion: allomorphs of a morpheme are phonologically unrelated: *go/went; be/am/is/ was; good/better; one/first*

Classification of Morphemes

Morphemes can be classified in various ways.

free or bound

root or affix

inflectional or derivational

prefix or suffix or infix or circumfix or superfix or interfix positional

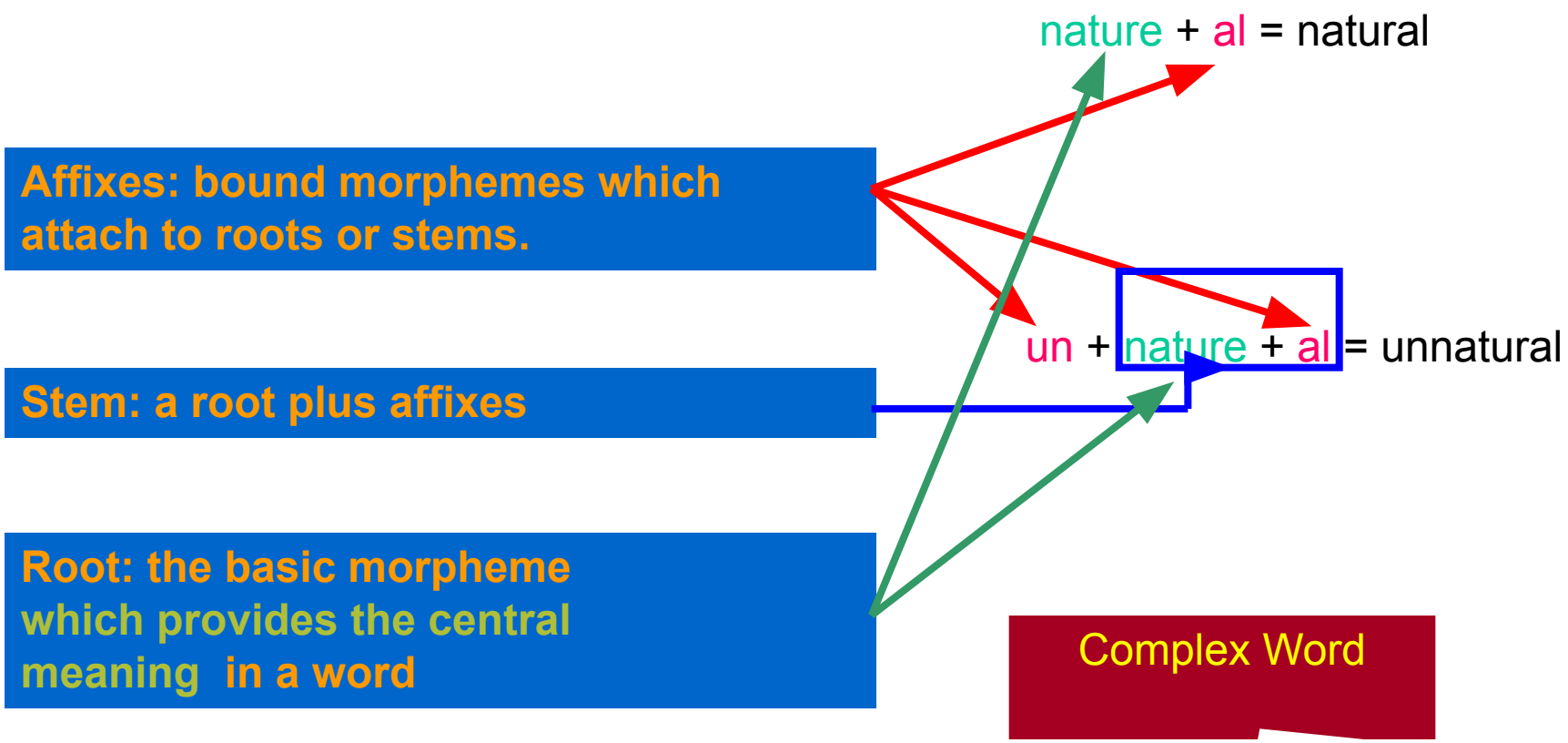
NB! interfix (linking morpheme with no meaning) ≠ infix (a meaningful morpheme)

Free and Bound Morphemes

We can divide *reader* into *read* and *–er*. However, we cannot split *read* into smaller morphemes. This means that the word *read* is itself a single morpheme.

A morpheme which can **stand alone** as a word is called a free morpheme. By contrast, *-er* has to combine with other morphemes. So it is a bound morpheme.

Root, stem, base & affix



simple word

nature

unnatural

naturalistic

natural

naturalist

naturalism

Base

Linguists sometimes use the word "Base" to mean any root or stem to which an affix is attached. In this example, *nature, natural*, and *unnaturally* would all be considered bases.

nature + al = natural

un + nature + al = unnatural

un + nature + al + ly = unnaturally

bound root morphemes

All mophemes are bound or free. Affixes are bound morphemes. Root morphemes, can be bound or free.

ceive was once a word in Latin 'to take', but in Modern English, it is no longer a word, so it is not a free morpheme.

-ceive:
receive;
perceive;
conceive;
deceive

-mit:
permit;
commit;
transmit;
admit;
remit;
submit

	Free	Bound
Root	dog, cat, run, school…	(per)ceive, (re)mit, (homo)geneous,…
Affix		(friend)ship, re(do), (sad)ly…

Example of bound root

Latin root *viv-/vit-* meaning “life” or “to live”.

revive	re-vive: to live again, to bring back to life
vitamin	vit-amin: life medicine
vital	vit-al: full of life
vivacious	viv-acious: full of life
vivid	viv-id: having the quality of life

Portmanteau morpheme = single indivisible morpheme realising more than one feature. (The term is applied when the features are realised by separate morphemes in the same language, and less frequently in other languages.): *were* (BE+past), *she* (3rd person+singular+feminine+subject). Known as fusional.

Clitics: a mongrel or a crossbreed between an affix and a word. They are phonologically so short they can't be pronounced alone, they need to be joined to other words. Like words, their position is determined partly by syntactic rules. They are sometimes short forms of larger words:

(a) I'm, he's, you've, puis-je les lui donner? j'y vais

(b) Hasn't she gone? (Contrast with parallel question with non-clitic not.)

(c) [the man in the kitchens]'s wife (the possessive clitic)

Clitic vs. affix

	Clitic	Affix
Freedom of position	Free to attach to different elements	Fixed positions in word structure
Selectivity	Non-selective	Highly selective
Allomorphic variation	Very few allomorphs, always phonologically conditioned	Great number of allomorphs (lexically, morphologically and phonologically conditioned)
Meaning predictability	Uniform, invariable meaning	Semantic idiosyncrasies
Prosodic	Prosodically less integrated	Fully integrated prosodically. May change stress pattern in base

What can be in a word?

Natural ordering of elements in a word:

proclitic + inlexional prefix + derivational prefix + root + derivational suffix + inflectional suffix + enclitic

PREFIX – a morpheme attached in front of a base/stem, e.g. ***un****happy*

SUFFIX - a morpheme attached in front of a base/stem, e.g. *unhappi****ness***

CIRCUMFIX – if a prefix and a suffix act together to realise one morpheme and do not occur separately, e.g. in German ***ge****film****t***, ***ge****frag****t***.

INFIX – it is an affix added in the word, for example, after the first consonant, as in Tagalog, *sulat* ‘write’, *su****mu****lat* ‘wrote’, *si****nu****lat* ‘was written’.

INTERFIX – a kind if affix-like element which is placed between the two elements of a compound, e.g. in German: *Jahr-**es**-zeit, Geburt-**s**-tag*. Interfixes do not have meaning contribution synchronically.

SUPRAFIX – realised by different stress in a word: e.g. '*discount, dis'count; 'import-im'port, 'insult-in'sult*...

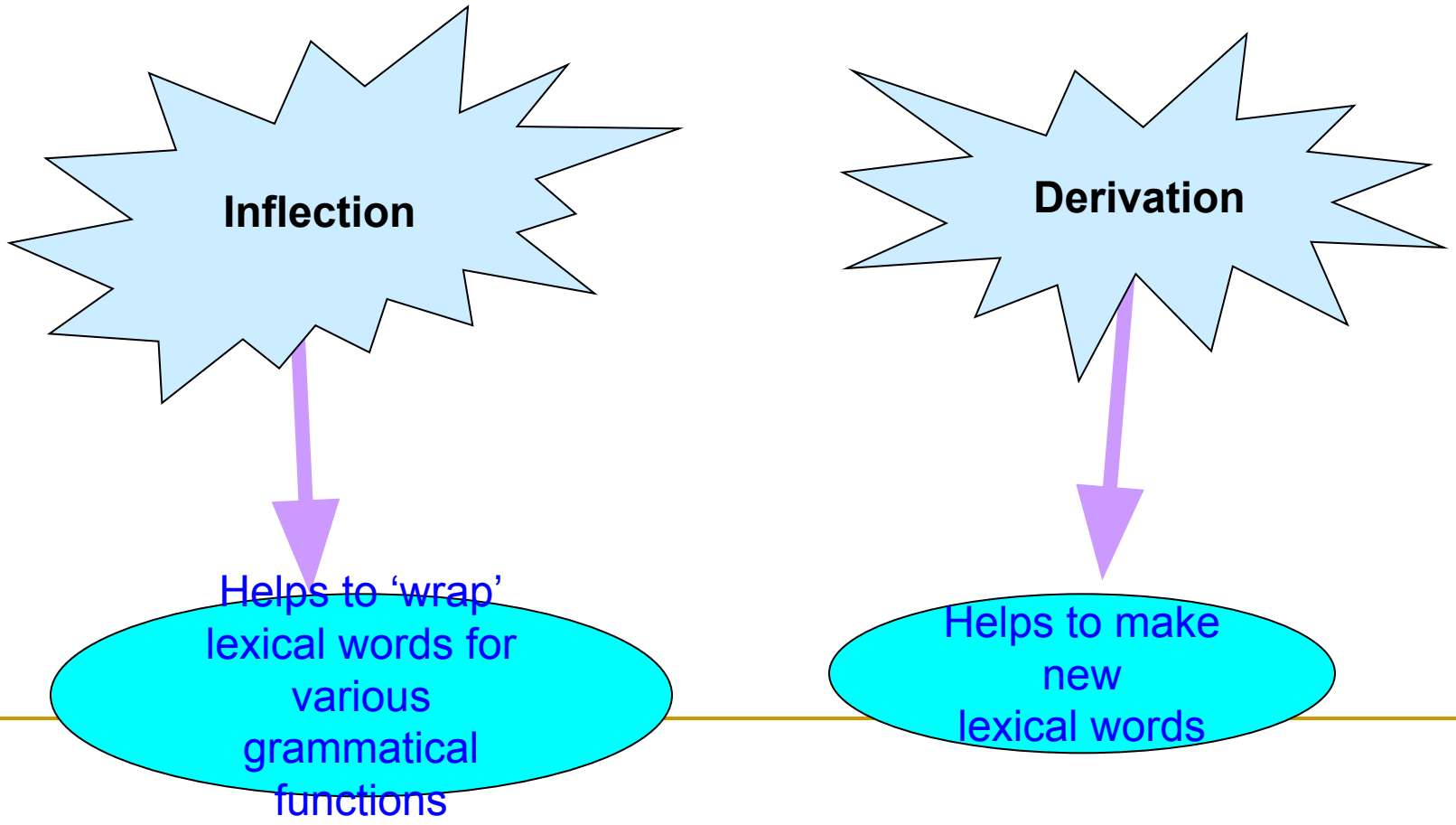
ZERO MORPHS – There is no transparent morph to mark a regular grammatical distinction, e.g. *deer-deer, fish-fish, sheep-sheep*...

ANALYTICAL MARKER – a combination of a free standing function word and a grammatical suffix which jointly realize a single value of a grammatical category, e.g.

progressive in English – *be* + V-*ing*

Inflectional and Derivational Morphemes

Affixes can be divided into inflectional morphemes and derivational morphemes.



Inflectional Morphemes

Inflectional morphemes do not change grammatical category of the base to which they are attached. They do not change the meaning of the base. They only carry relevant grammatical information, e.g. plural. Thus, ***book*** and ***books*** are both nouns referring to the same kind of entity.

The number of inflectional affixes is small and fixed. NO new ones have been added since 1500.

Examples of Inflectional Affixes

Suffix	Stem	Function	Example
-s	N	plural	book-s
-s	V	3rd singular present tense	sleep-s
-ed	V	past tense	walk-ed
-ing	V	progressive	walk-ing
-er	Adj	comparative	tall-er
-est	Adj	superlative	tall-est

Derivational Morphemes

- **Derivational morphemes form new words**
  - either by changing the meaning of the base to which they are attached

    kind ~ unkind; ***obey ~ disobey***

    accurate ~ inaccurate; ***act ~ react***

    cigar ~ cigarette; ***book ~ booklet***
  - or by changing the grammatical category (part of speech) of the base

    kind ~ kindly; ***act ~ active ~ activity***

    able ~ enable; ***damp ~ dampen***

    care ~ careful; ***dark ~ darkness***

Examples of Derivational Affixes

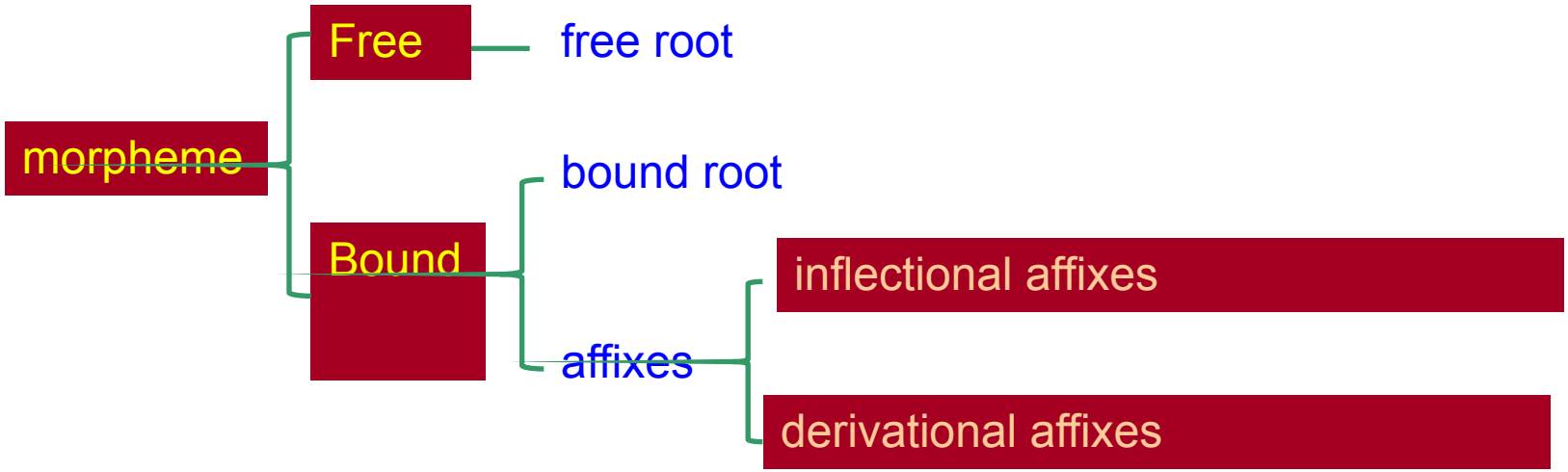
Prefix	Grammatical category of base	Grammatical category of output	Example
in-	Adj	Adj	inaccurate
un-	Adj	Adj	unkind
un-	V	V	untie
dis-	V	V	dis-like
dis-	Adj	Adj	dishonest
re-	V	V	rewrite
ex-	N	N	ex-wife
en-	N	V	encourage

Suffix	Grammatical category of base	Grammatical category of output	Example
-hood	N	N	child-hood
-ship	N	N	leader-ship
-fy	N	V	beauti-fy
-ic	N	Adj	poet-ic
-less	N	Adj	power-less
-ful	N	Adj	care-ful
-al	V	N	refus-al
-er	V	N	read-er

Sum: Inflection and Derivation

Derivational morphemes are used to create new lexical items (lexemes).

Inflectional morphemes only contribute to the inflectional paradigm of the lexemes, which lists all the word-forms or the morphosyntactic words of the lexeme.



Lexical

i) creation of a new lexeme;
ii) encoded specific conceptual meaning;
iii) not syntactically relevant;
iv) recursive;
v) complex constraints on productivity;
vi) frequently semantically opaque results;
vii) changes in part of speech membership;
viii) highly creative – allows nonce formations and occasionalisms;
ix) numerous concurrent patterns;
x) replaceable – can be periphrastically expressed.

Grammatical

i) creation of new morphosyntactic word forms;
ii) encodes features of grammatical categories (abstract conceptual oppositions);
iii) highly syntactically relevant;
iv) non-recursive;
v) fully productive;
vi) fully predictable meaning;
vii) appears outside all derivation;
viii) doesn't change part of speech membership;
ix) one pattern per meaning;
x) abstract meaning contribution;
xi) obligatory.

Parts of speech – criteria (mostly language specific)

1) Notional/semantic – *doll* vs. *destruction*; *lie* vs. *jump;*

2) Morphological marking and susceptibility to grammatical categories – *painting: was painting, the painting, paintings, painting men*$_{(amb.)}$;

3) Distribution – *next round, came round, round book, round the corner, rounded the corner*

4) Syntactic function – *To know is to have power. I want to know. The things to know.Be in the know*

Parts of speech in English

Open	Closed
Noun	Pronoun
Verb	Preposition
Adjective	Conjunction
Adverb	Article
	Particle (not; to)
	Interjection
	Numeral (cardinal vs. ordinal)

Grammatical categories

Grammatical categories are abstract relational, conceptual categories which function as skeletons for linguistic reasoning. E.g. *Tense – relation between a communicative act and SoA talked about; Definiteness – discourse familiarity with a referent*.

Different sets of grammatical categories apply to different lexical classes (parts of speech).

Grammatical categories

A great deal of *morphologic, syntactic* and *semantic categories* are *ordered* in *hierarchic arrangements.* The *principles* for the *hierarchic arrangements* of *morphologic, syntactic* and *semantic categories* are seen to be *universal*, whereas the *categories* themselves, *subcategories*, their *members* and their *hierarchic arrangements* are more or less *language specific*. The *principles* for the *hierarchic arrangements* of *morphologic, syntactic* and *semantic categories* are subject to *empirical* investigation. The *hierarchic arrangement of categories* is responsible for the fact that grammatical rules usually refer to subclasses of paradigms (the cross-sections between parts of speech, grammatical categories and exponence).

Grammatical exponence

Agglutination

Inflexion

Fusion

Isolation

Analytical/discontinuous marking

Root and vowel pattern

Vowel harmony

Ablaut

Agglutination

- a process in linguistic morphology in which complex words are formed by stringing together morphemes, with clear inetmorphemic boundaries, each with a single grammatical or semantic meaning. Languages that use agglutination widely are called agglutinative languages, e.g. Turkish the word *evlerinizden*, or "from your houses," consists of the morphemes, *ev-ler-iniz-den* with the meanings *house-plural-your-from*.

Inflexion

the process of adding affixes to or changing the shape of a base to give it a different syntactic Function without changing its form class as in forming *serv**ed*** from *serve, sing**s*** from *sing,* or *hard**er*** from *hard*. Inflexions usually combine multiple meanings – *s*: 3rd p., sg., pr.t., s.a., indic., non-modal, etc. Languages that add inflectional morphemes to words are sometimes called *inflectional languages*, which is a synonym for *inflected languages*.

Isolation

– using separate monosemantic morphemes for the encoding of grammatical categories. An isolating language is a language in which almost every word consists of a single morpheme. E.g. Vietnamese

khi tôi dên nhà ban tôi, chúng tôi bát dâu làm bài.

when I come house friend I Plural I begin do lesson

Root and vowel pattern

- non-concatenative morphology of the Afro-Asiatic languages (described in terms of apophony). The alternation patterns in many of these languages is quite extensive involving patterns of insertion of harmonized vowels in consonantal roots. The alternations below are of Modern Standard Arabic, based on the root **k–t–b** "write":

k**a**t**a**b**a** "he wrote"(a - a - a)

k**u**t**i**b**a** "it was written"(u - i - a)

yakt**u**b**u** "he writes"(ya - ∅ - u - u)

yukt**i**b**a** "it is written"(yu - ∅ - i – a)

k**u**t**taa**b "writers"(u - aa)

makt**uu**b "written"(ma - ∅ - uu)

k**i**t**aa**b**ah** "(act of) writing"(i - aa - ah)

k**i**t**aa**b "book"(i - aa), etc.

Vowel harmony

- a type of conditioned progressive phonological assimilation which takes place when vowels come to share certain features with contrastive vowels elsewhere in a word or phrase (Crystal 1992: 168) in the encoding of grammatical meanings. A front vowel in the first syllable of a word would require the presence of a front vowel in the second syllable. E.g. Turkish – *adam* – *adamlar* *(man-men)* vs. anne – annelers (mother – mothers).

Ablaut

- (vowel gradation, root vowel mutation) – a system of unconditioned root apophony (vowel change) signalling different grammatical meanings, e.g. English – *sing –sang – sung*.

Grammatical categories of variable lexical classes in English

Nouns	Pronouns	Verbs	Adjectives	Adverbs
Number	Number	Tense	Degrees of comparison	
Case	Case	Aspect		
Definiteness (discourse level)	Gender	Correlation		
	Person	Voice		
		Mood		
		Modality		
		Assertion		

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