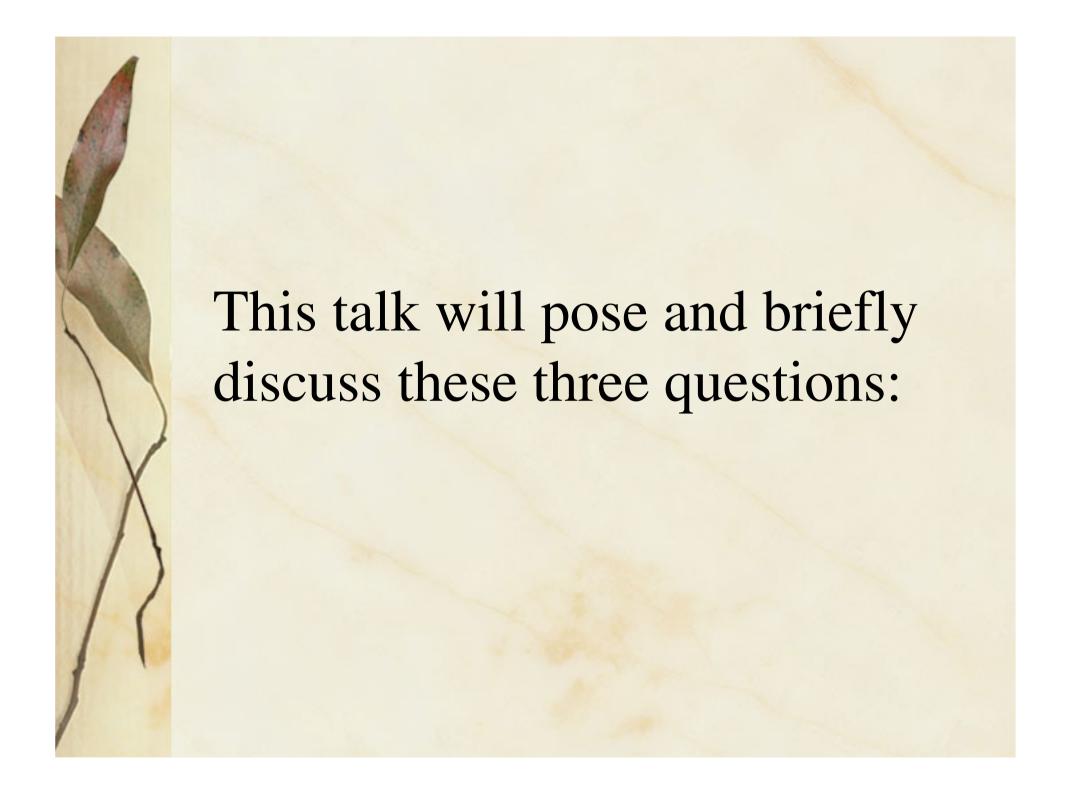


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First, when does a morpheme stop being a morpheme, and why?

Second, are ostensibly irregular word formation processes to be excluded from morphological analysis and consigned "to the lexicon"?

Third, what connection is there between information value, blends, and the grain size of words?

Although our main topic is "blends," it will in fact be used mainly as a case in point, and placed in a larger context of morphological study.



One: When does a morpheme stop being a morpheme, and why?

Until the 1940s, morphology was a part of philology, i.e. the history of complex words or words that "were once complex."

Then it became mainly a synchronic discipline under the influence of Saussurian structuralism, Hans Marchand, and generativism.

As the original forms and meanings of word components change and thus become more opaque to modern speakers of the language, they accordingly lose their status as "morphemes." Once these processes have been in operation for some time, how is it to be decided what is and what is not a "meaningful component" of a word?

A sample of how a few linguistics and morphology textbooks handle – or skirt around – this question:

### (1) Bloomfield

"A linguistic form which bears no partial phonetic-semantic resemblance to any other form, is a simple form or *morpheme*."

One common problem is that of how to classify word components such as *-mit* and *-ceive*.

## (2) Fromkin, Rodman, Hyams

"For modern English speakers, Latinate morphemes such as -ceive and -mit have no independent meaning. Their meaning depends on the entire word in which they occur... While some of these words may have historical origins, there is no present meaningful connection." (3) O'Grady echoes this sentiment:

"Because the components of words like receive and deceive carry no identifiable meaning for the average speaker of English (who has no knowledge of Latin), we will not treat them as separate morphemes in this book. Thus we take the word receive to consist of a single morpheme."

"An interesting fact about these forms is that although ceive and mit have no identifiable meaning, they undergo certain alternations that suggest that they have a special status in the grammar."

# (4) Haspelmath

"Morphemes can be defined as the smallest meaningful constituents of a linguistic expression.

Morphemes are the ultimate elements of morphological analysis; they are, so to speak, morphological atoms."

### (5) Katamba

"Morphology has been regarded as an essentially **synchronic** discipline, that is, a discipline focusing on the study of word-structure **at one stage in the life of a language** rather than on the evolution of words."

(6) Stockwell & Minkova take a different tack:

"Allomorphy varies from being transparent synchronically to being discoverable only with reference to a good etymological dictionary. Therefore, what may be considered two separate morphemes or two allomorphs or the same morpheme in Present-Day English will vary from speaker to speaker."

bandit, fame, infant, phonetic, and symphony

all contain the PIE root \*bha 'speak' (in the forms  $\sqrt{ban}$ ,  $\sqrt{fa}$ , and  $\sqrt{phon}$ ).

These roots are cognates.

"But would we invoke the relationship of allomorphy between them?

Not automatically, and probably not at all for the ordinary speaker of the language, though it is always interesting to know what the etymological relationship is."

# Bauer, Glossary of Morphology

Bauer describes a broad range of different conceptions of what a morpheme is, going back to deCourtenay, ca. 1880, who he says did not give it a precise definition.

"The English plural ending -s as in books and -en as in oxen "synonymous morphemes" can be viewed as either allomorphs, under a meaning-based system, or as different morphemes, in a more form-based system.

But there is no well-defined cut-off point on the scale of phonological relatedness."

#### Anderson, A-morphous morphology

"...the form of words is better treated by means of ordered rules operating simultaneously on the semantics, external syntax and phonological content of the input to the rules."

One way to deal with a slippery construct like a morpheme is to get rid of it altogether.

This sample selection of viewpoints suggests that we are saying things in the margins, parentheses, and footnotes that we are not – but certainly should be – dealing with in our definitions and main expositions. We strive for rigor and preciseness, but we are dealing with a fuzzy construct, a continuum. Therefore...

There is no one way to definitively define a morpheme in English.

We will invoke here an analogy from computer science:

In serial or linear processing, only one item can be processed at a time, sequentially;

but in parallel processing or networks, "decisions" are made by additive input from a large number of sources, near and distant, which determine the strength of a signal.



#### Serial processing

Advantages: Highly reliable, accurate, precise, consistent.

**Disadvantages:** Slow, zero tolerance for error.

#### **Networks**

**Disadvantages:** Lower accuracy, less consistency.

Advantages: Flexibility, adaptability.



#### Vertosick

"Networks invent their own rules as they go, while digital computers need to have the rules spelled out for them by programmers."

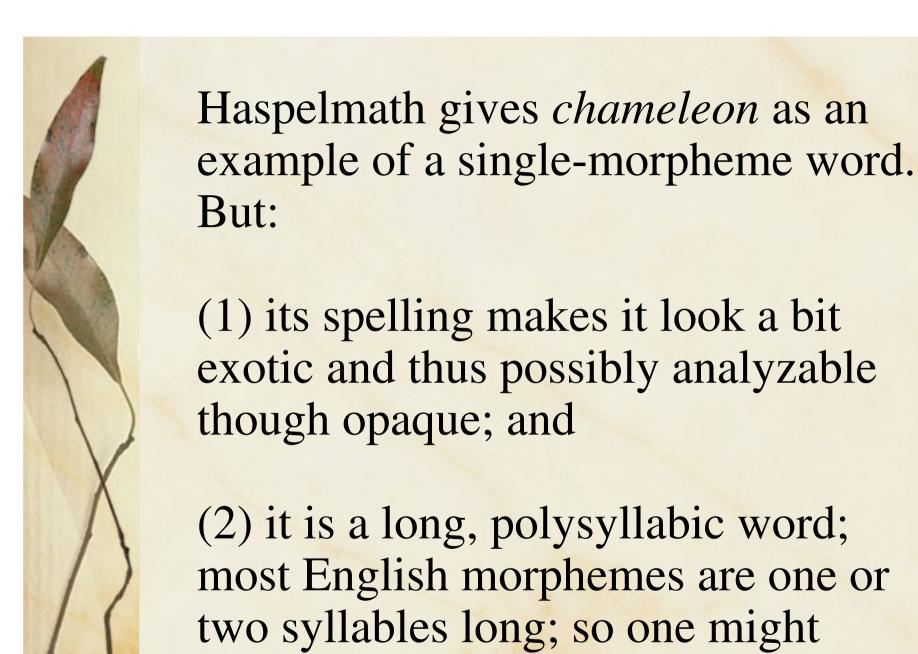
"Networks deal best with patterned information and prefer good solutions to exact ones."

I suggest that it is time to adopt a similar approach in morphology.

I propose that the knowledge that something has meaning, even when that meaning is vague or not immediately known, and even when the speaker cannot parse the word perfectly correctly, still counts as some level of morpheme recognition. Conventional morphology is serial in nature; the morpheme is considered binary and absolute; something either *is* or *is not* a morpheme.

With this approach we end up with many problematic cases, such as the *-ceivel-mit* one.

We can however accommodate all kinds of problematic and doubtful cases if we adopt a scalar, gradient view of morphemes, in which the morphemes according to the current conventional definition are considered canonical morphemes, and other "doubtful" cases depart from this standard to varying extents, falling somewhere on a continuum.



suspect it can be further broken down.

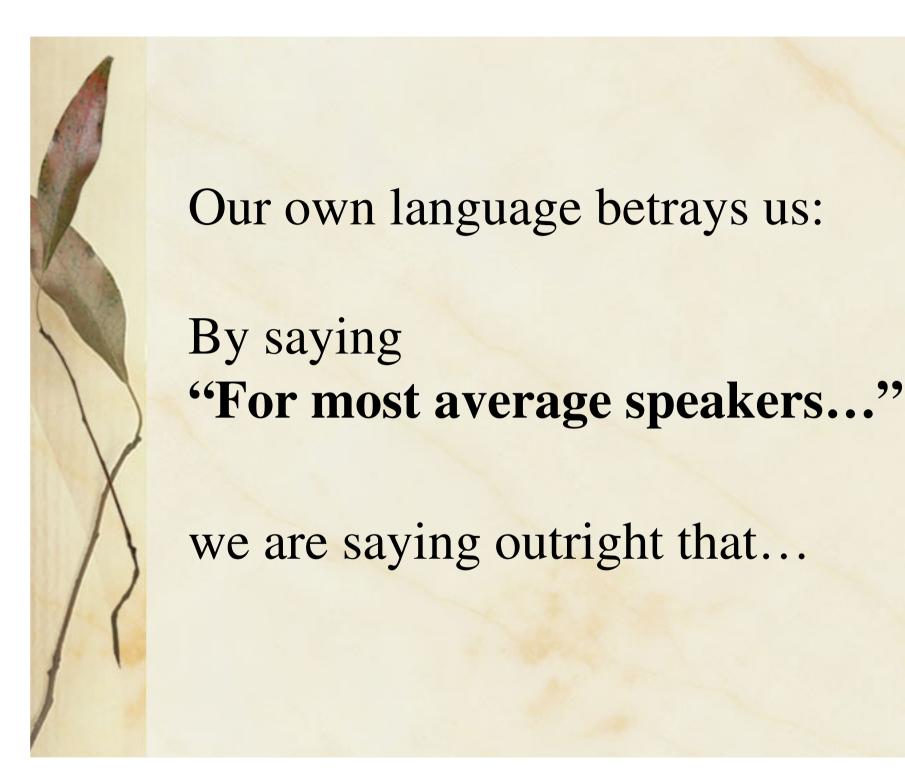
#### chameleon

from *chamai* 'on the ground' +  $le \bar{o}n$  'lion'

chamai 'on the ground' is quite forgettable, but  $le \bar{o}n$  looks a lot like 'lion'. Seeing this once may change forever your view of how many morphemes chameleon has.

We should define precisely what we mean by an "average speaker."

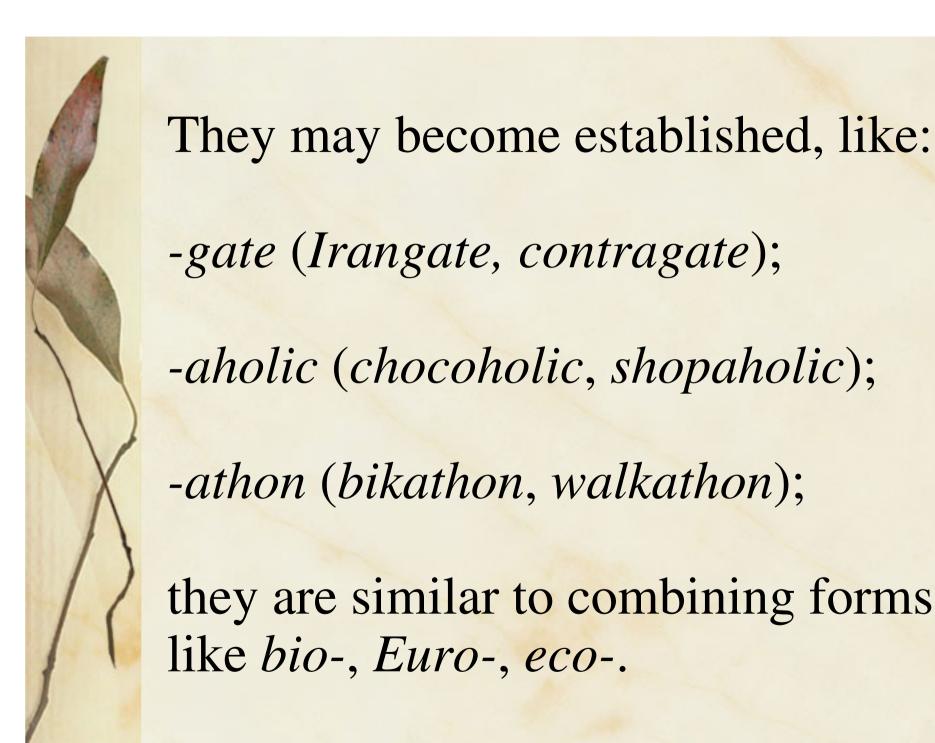
How do we justify excluding anybody with some knowledge of Latin, or with a strong interest in words and word origins? Are they really freaks or "outliers" who "don't count"?



A morpheme is an entirely subjective notion depending on the analysis of one particular user on one particular occasion or time. Different individuals will have differing levels of recognition of "the smallest difference of meaning or grammatical function" of a given form. There will also be disagreement regarding how big or small a unit constitutes a unit of difference.

Bookcase and eyelash are straightforward and clear-cut; but not all cases are as unproblematic as compounds composed of free morphemes.

Transparency falls and controversy increases as we consider other kinds of word formation units, e.g. splinters, i.e. the bound morphemes found in blends.



## Re derivational affixes:

Booij says these are "pieces of morphological structure, just like the constituents of compounds." These are usually less controversial, but it is sometimes hard to draw clear morphemic boundaries, e.g. what about -ca- in intensification?

Sub-morphemic units, i.e. units that are smaller than a morpheme can be problematic.

An example is phonaesthemes, e.g. gl- as in gleam, glimmer, gloom, which carry vague meaning, and which Knowles calls "dead morphemes."

If you see bundle in isolation, you may not hesitate to say it has one morpheme. But in the company of kernel, nozzle, axle, navel, nipple, pimple, and mongrel you may sense a pattern than makes you wonder if -le/-el is some kind of suffix.

In fact it is an old Germanic and Indo-European diminutive, -lo. It is not necessary to know this to sense a pattern and identify it as a possible or potential morpheme in a word like bundle.

Something similar applies to the -en in maid/maiden and chick/chicken.

There are also zero morphemes or conversion, and even subtractive morphemes, where omission of morphological material changes the meaning of a formation.

The real issue isn't whether a phonaestheme or other word formation element is a kind of morpheme or not.

The important point is that each occupies a stretch on the same continuum of word-forming, meaning-bearing elements.

Rather than quibbling about what is and is not a morpheme synchronically, we should instead come clean and simply recognize the concept of "morpheme" as the subjective and scalar construct it is.

It is really the only solid, honest, and consistent way to proceed, that doesn't require us to live part of our life hidden in the footnotes, margins and parentheses.



Two: Are ostensibly irregular word formation processes to be excluded from morphological analysis and left "to the lexicon"?

The question is: If we choose to deal only with regular, rule-governed behavior in word composition, then what are we to do with partial productivity? And idiosyncrasy?

Are irregular word formation processes – blends for example – to be excluded from morphology and relegated to the "lexicon", simply because of their low predictability?

I propose that this is like hiring a cleaning lady who "doesn't do windows, won't move heavy furniture to clean underneath, and won't go in the teenage daughter's room."

With all these exclusions, why even bother hiring someone?

We will cite here a concept mentioned in **Sun Zi's** *Art of War* 孫子兵法. qí zhèng xiāng shēng 奇正相生

'The regular and the irregular beget each other.'

Irregularity is what in information theory is referred to as "noise." It is the unpredictable, unordered part of a signal that interferes with or distorts the message being sent.

We condemn noise, but it "will always be with us." (Vertosick)

Irregularity in ongoing patterns is what enables new patterns to emerge.

If we shun irregularity and its creative and procreative function, it would be like ignoring dating, love, sex, and birth – all rather "messy" and complex but among the most exciting things in life – and dealing only with fully-formed individuals, then claiming we were offering an adequate theory and description of human life.

Since it is irregularity that begets new form types – some of which grow and prosper and others of which disappear almost as quickly as they surface it should be made an inherent part of morphological study and theory.

## Pierce

Entropy is a measure of the amount of uncertainty in information conveyed from a message source, and thus the amount of information conveyed by a message from a source.

What if, instead of or in addition to measuring productivity, we were to also examine and measure entropy in our study of word formation processes?

There is a tension between the need for predictable order, i.e. low entropy, and the desire for curveballs, novel formations, surprises, i.e. higher entropy.

If entropy is too low, there is too much predictability and redundancy.

If entropy is too high, the signal may be "efficient", but there is no room for error or play (e.g. as in phone numbers), i.e. jokes, clever turns of phrase, metaphors, and novel word formations.

Room for creativity and play is necessary in a language, so it would profit us to formally work an examination of "entropy" into our theories and descriptions.

New word formation structures may lead to new patches of regularity that may or may not gain momentum and eventually become part of the morphological establishment.

In the process of collecting examples of blends, we should identify and track what kind of semantic, expressive and social needs the new word forms are a response to.

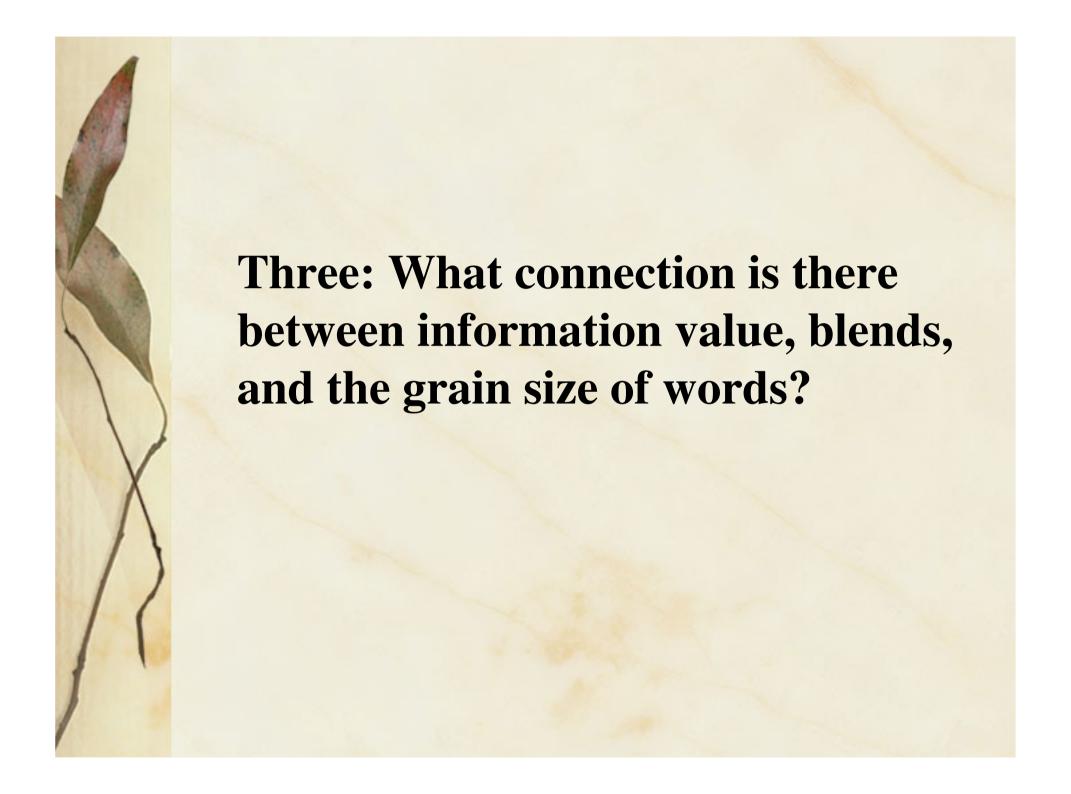
We can do this with genre and text analysis, i.e. analyzing where blends, especially new ones, appear most often, e.g. editorials, advertising, blogs, novels. What parts of speech are they? Where are they absent? What is the situation in other languages?

Blends have been formed for centuries, and they have become an extremely popular and common word formation strategy in English.

Blend formation is something of a national pastime in the US. The Washington Post holds new word contests, and many of the submissions are blends, e.g. intaxication, sarchasm.

Since blends are so widely coined and enjoyed, they certainly have rules and patterns, and for this reason they should not simply be relegated "to the lexicon".





The more familiar something is, the more likely we are to reduce, simplify, and/or compact it, in order to focus on new bits with a higher information value.

Our minds seem to prefer a pattern of denser bits of information padded with fluffier ones, rather than a steady stream of equally weighted ones. This provides more variety; and the lighter bits give the brain time to absorb what has just gone by, and to prepare for the next relatively substantive item.

Blends like sunbrella, snackrifice, mocktails, chillax, locavores, femisphere, newstalgia, reflect a need for more information compacted into less space. They are easy to name, using readily available found bits.

From the listener's side, they require familiarity with current events and pop culture. The listener/reader may Google them if they are unfamiliar.

Some survive, probably most end up as nonce usages.

Blends can be used to adjust the information flow in response to the brain's demand for greater information density, novelty, avoidance of boredom.

They offer a self-congratulatory "buzz" upon decipherment. The emotional engagement associated with them makes them more memorable and reinforces their use.

If they are adopted and become familiar, there will be a drop in the information value of the whole; phonological simplification may occur, and transparency may correspondingly drop, until the point where it is hardly or no longer at all recognizable as two morphemes; possible examples: motel, smog.

Blends straddle the line between productivity and creativity. Their use is burgeoning. They provide a unique opportunity for studying word formation strategies.

We can use text analysis and the tools of information theory (IT) to help give us a bigger picture of word formation patterns and the motivations behind them.

Patterns of information value rises and falls in discourse are a field ripe for further study and development.



# Conclusions

### First

We should begin to treat the notion of "morpheme" as the subjective, scalar construct that it is. We should allow each unit of word composition that carries any degree of meaning at all to take its rightful place on the continuum of meaning-bearing units of word formation, from more to less canonical.

### Second

Word formation patterns that are not rigorously rule-governed but that still exhibit identifiable patterns should not be simply relegated to the "lexicon"; we should instead draw from an arsenal of different tools to identify larger, often looser, patterns of use and composition.

### Finally

We should pay special attention to the rises and falls of information value of individual word formations within discourse and over history to better understand them and extract more generalizations about their nature and how they work and fit into the larger picture of word formation.



# Acknowledgment Big thanks to my daughter Nadia Yun Chung 鍾韻 for her help in preparing this Power Point presentation.

### Thank you!

## Questions and feedback welcome

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