THE MORPHOPHONEMICS OF ENGLISH

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I. INTRODUCTION:

When we hear an unknown language, we get the impression of a stream of disorganized noises of no sense. To the native speaker it is quite otherwise. He pays little attention to the sounds, but concerns himself instead with some situation which lies behind the speech act.

According to a linguist Henry A. Gleason, Jr., there are three major components of language as far as language lies within the scope of linguistics. They are the structure of expression, content, and vocabulary. The latter comprises all the specific relations between expression and content – in the familiar terminology, words and their meanings.

Charles F. Hockett, Professor of linguistics and anthropology, defines a language as a complex system of habits. The system as a whole can be broken down and categorized into five principal subsystems, of which three are central and two are peripheral.

The three central subsystems are:

1. The phonological system: a stock of phonemes, and the arrangements in which they occur;
2. The grammatical system: a stock of morphemes, and the arrangements in which they occur;
3. The morphophonemic system: the code which ties together the grammatical and the phonological systems.

The two peripheral subsystems are:

1. The semantic system: which associates various morphemes, combinations of morphemes, and arrangements in which morphemes can be put, with things and situations, or kinds of things and situations.
2. The phonetic system: the way in which sequences of phonemes are converted into sound waves by the articulation of a speaker, and are decoded from the speech signal by a hearer.

For the limitation of the paper, I shall briefly introduce the three central subsystems: The phonological, grammatical and morphophonemic systems, among which The morphophonemic of English most dealing with the topic of the paper will be more focussed.
II. THE PHONOLOGICAL SYSTEM - A STOCK OF PHONEMES

Suppose we ask a grocer the price of sugar, and he says twenty cents a pound. How do we know that he has said this, rather than forty cents a pound, or we have no sugar today, or something else?

The answer is obvious. The various things that someone might say in a given situation (and a given language) sound different. We tell one statement from another by ear, it is similar that we recognize the faces of our friends by sight. Of course, we are not mistaken in either sort of identification. We may mistake one friend for another if the light is bad, and we may misunderstand what someone says if the surroundings are too noisy or if he (she) mumbles his (her) words. And just as we would have particular trouble with a pair of identical twins, so it is with the pair of English utterances like: "The sons raise meat" and "The sun's rays meet". In cases like this, only context can help.

The function that sounds and differences between sounds have in language is to keep utterances apart. This means that there is little to be learned by examining the utterances of a language one by one, trying to describe the sound of each. It is much more to the point to examine pairs of utterances to see how they differ in sound.

Now if we consider a pair such as twenty cents a pound and we have no sugar today, we find the difference so general that it is hard to fasten anything down. At the other extreme, a pair like “The sons raise meat” and “The sun’s rays meet” is of no help, since, by exception, this pair cannot be kept apart by ear but only by context. Between these two extremes, however, we can find pairs which might be said to be “almost-identical twins”. Here are some examples:

“She takes good care of her crane”
“She takes good care of her cane”

The difference in meaning is great. But the difference in sound is minimal: The first of the two has /r/ sound in the last word is lacking in the other. This is the only difference in sound between the two.

One of a pair of almost-identical utterances may have one characteristic feature where the other has a different one. For instance:

“That’s a nice pin” and “That’s a nice bin.”

Pairs like these give important information about the way a language makes use of differences of sound; that is, about its phonological system. The second pair tells us that in English we sometimes keep utterances apart solely by making a voiceless /p/ sound at a certain point in one of them, a voiced /b/ sound at the same point in the other.
In the two sets of almost-identical utterances considered so far, the differences in sound are located in specific word: crane versus cane and pin versus bin. There is both a difference of content and a difference of expression. The later enables the hearer to recognize the word and associate it with the proper content. A native speaker can distinguish these two pairs of words as they are said by any other native speaker. The two must differ in at least one significant feature in the expression system, that is, in at least one phoneme - the most basic elements in the expression system.

Phonemes are the sound features which are common to all speakers of a given speech form and which are exactly reproduced in repetition. In any language there is a definite and usually small number of phonemes. (In English there are said to be forty-six.)

Linguists define a phoneme as a minimum feature of the expression system of a spoken language by which one thing that may be said is distinguished from any other thing which might have been said. Thus, if two utterances are different in such a way that they suggest to the hearer different contents, it must be because there are differences (small or extensive) in the expressions. The smallest difference which can differentiate utterances with different contents is a difference of a single phoneme.

Phonemes are part of the system of one specific language. The phonemes of different language are unlike. It is for this reason that a foreigner hears only a disordered sounds which he is unable to repeat. The sounds of the unfamiliar language do not fit into his phonemic system, and so he can comprehend no order in a simple utterance.

In short, the phonemes of a language are the elements which stand in contrast with each other in the phonological system of the language.

III. THE GRAMMATICAL SYSTEM - A STOCK OF MORPHEMES:

If the utterances of the English (or any other language) consisted merely of arrangements of phonemes, there would be no point in speaking or in listening. But people do often speak and listen every day, and their communication transmits information and instructions. The reason why speeches can serve in this way is because they have another kind of structure beside the phonemic one - a structure in terms of morphemes.

Morphemes are the smallest individually meaningful elements in the utterances of a language.

In order to identify the morphemes, we break out words into portions, then pull out any portion and ask the following questions:
(1) Does the portion recur in various utterances with the same meaning? If yes, then the portion is grammatical form, but not necessarily a single morpheme. If no, try another portion.

(2) Can the form be broken into smaller pieces, each of which recurs with approximately the same meaning, in such a way that the meaning of the whole form is related to the meanings of the smaller pieces? If yes, then the form is larger than a single morpheme. But if the answer is no, then the form itself is a single morpheme.

We can take the following sentence as an example:

*John treats his older sisters very nicely.*

\[ ð'joùùn+²tritsiz+ouwldð+sístð rζ+veùri +naùisli²↑/ \]

Now we apply the tests to the following extracts from the sentence above: /jêoùù/, /joùùn + tr/, / oùwldð r/, and / sístð r/.

The first portion , /jêoùù/, fails Test (1). It recurs, e.g., in Jobs are hard to find here, He's a jolly man etc.

The second portion also fails Test (2). It also recurs. e.g, in John trained his students well, John tries hard, etc. But the requirement of similarity of meaning is NOT satisfied.

Portion /òuwldð r/ fits Test (1). Its meaning in the original sentence is certainly the same as in many sentences consisting of "older". To apply Test (2), we break /òuwldð r/ up into smaller pieces : /òuwld/ and /ð r/. the former recurs in such sentences as He's an old man, He's the oldest son, etc. and the latter recurs in, for example, When I was younger I enjoy singing, etc. it seems quite clear that "older" is more than one morpheme; "older" , then, is exactly two morphemes.

Finally / sístð r/. this passes Test (1) but there is a problem in Test (2). We break "sister" into two smaller pieces : sist- and -er. "Sister" cannot be regarded as a combination of smaller forms sist- and -er. We therefore come to conclusion that "sister" is a single morpheme.

As in the expression system aspect, morpheme is the second basic unit. We can characterize a morpheme as *the unit on the expression side of language which enters into relationship with the content side*. A morpheme is typically composed of one to several phonemes. The morpheme differs fundamentally from the phoneme which has no such relationship with content. That is, phonemes have no meanings, morphemes have meanings.

As the above example taken for testing, we can obviously see that the simpler words of English are morphemes. Other words consist of two or more morphemes. Like the phonemes, the morphemes enter into combinations in accordance with definite and complicated patterns.
The grammar, or grammatical system, of English is the morphemes used in the language, and the arrangements in which these morphemes occur relatively to each other in utterances.

III. THE MORPHOPHONEMIC SYSTEM:

1. Definition.

Morphophonemics, a branch of morphology, deals with the variation in the forms of morphemes because of phonetic factor.

In Part II, I have mentioned briefly the ways in which grammatical systems work. Smallest units of concern are morphemes. We have been concerned with the ways in which morphemes are put together into utterances; now we are concerned with the phonemic shapes which represent the morphemes.

Here is the list of several English words taken here for example: brought, went, sold, and sang. Each consists of two morphemes: one is asserted to be the verb stem bring, go, sell, and sing, while the other, common to all four, is asserted to be the past tense morpheme. The elements we have to make mention are the obvious differences between the phonemic shapes representing these various morphemes in the different words.

There are morphemes which are represented in all occurrences by a single phonemic shape: for example, pay, represented by /pei/ in pays, paid, paying, payer, payee, payment, and so on, as well as in the whole word "pay". If all the morphemes of English were like this, then the morphophonemics of the language would be trivial. But there are complications in the English language. Thus, in English, the past tense morpheme is represented by a suffixed /d/ in paid, but by a combination of infixed /ou/ and suffixed /d/ in sold, and in various other ways in brought, went, sang. "Sell" is represented by /seùl/ in most contexts, but by /s...ù...l-/ when accompanied by the past-tense morpheme /s...ù...l/- + /...ou...-d/ = /soùuld/; sing is usually /sìŋ/, but is also represented by /s.ù..ŋ/, into which fit infixed representations of certain inflectional morphemes, to yield sang, sung.

When a morpheme is represented sometimes by one phonemic shape and sometimes by another or others, we say that the shapes stand in alternation with each other. Each representation is a morph; all the morphs that represent some given morpheme are called allomorphs of that morpheme.

/seùl/ and /s...l/ are both allomorphs of the morpheme {sell}.

{pay} manifests invariant alternation—being represented, in all environments, by a single allomorph /peùi/.
Two morphs are distinct if they differ in phonemic shape, as \(/seu\ell/\) and the \(/s...l/\) of “sold”. They are also distinct if they are allomorphs of different morphemes, even if they are identical in shape: \(/seu\ell/\) representing \(\{sell\}\) and \(/seu\ell/\) representing \(\{cell\}\) thus as two different morphs.

2. Types of morphophonemic changes.

There are some common types of morphophonemic changes in English:

(a) Loss of phonemes
- The phoneme \(/n/\) of the negative prefix \(\{in-\}\) is lost before the morphemes beginning with sonorant sounds \(/m/; /r/; /l/\) and \(/n/\).
  e.g. immobile; irregular, illimitable
- The phoneme \(/t/\) is lost when changing wordclass (adjective to a noun)
  e.g. different \(\rightarrow\) difference; democrat \(\rightarrow\) democracy

(b) Addition of phonemes
- e.g. solemn / úsol©m / \(\rightarrow\) solemnize / úsol©mnaiz /
  (phoneme \(/n/\) is added)
  long / lOη/ \(\rightarrow\) longer / ÛlOηg©/
  (phoneme \(/g/\) is added)
  sword \(\rightarrow\) swordsman; sale \(\rightarrow\) salesgirl; craft \(\rightarrow\) craftsman
  (the phoneme \(/s/\) is added)

(c) Simple change of phonemes
- e.g. path / pæθ/ \(\rightarrow\) paths/ pæ©z /; mouth \(\rightarrow\) mouths, etc.
  The phoneme \(/θ/\) is changed to \(/ ð/\) when pluralized.

(d) Assimilation - Dissimilation
- Assimilation is the process of replacing a sound by another sound under the influence of a third sound which is near to it in the word or sentence.
  e.g. resist / ri úzist /; consist / kônsùist/ etc.
  The change of \(/z/\) to \(/s/\) under the influence of \(/n/\).
  * There is another change due to assimilation of \(/n/\) to \(/m/\) before \(/b/; /p/; /m/\)
  e.g. impossible, imperfect, immoral, etc.
  Prefix \(\{in-\}\) has the allomorph \(\{im\}\) before \(/p/; /b/; /m/\)
Dissimilation is the opposite of assimilation. It takes place when the combining of two morphemes bring together two identical phonemes, resulting in the change of one of them to a phoneme less like its neighbour.

e.g. The Prefix \{in-\} has the allomorph \{-ig\} as in ignoble

(e) Synthesis

There is the fusion of the two phonemes brought together by morpheme combination into a single new phoneme.

e.g. \{moist\} \{-ure\} : /moist/ + /ju/ → /ùmois /

(f) Stress shift, gradation

In many cases the addition of an affix to a word is accompanied by a shift in stress called stress shift.

e.g. linguist → linguistics ;

The process of derivation including stress shift involves vowel change. This kind of change is called gradation.

e.g. symbol → symboùlic

(g) Suppletion

This type of morphophonemic change is the occurrence of the allomorph completely different in phonemic structure from the normal form.

The essential here is semantic similarity and complementary distribution. Different allomorphs are suppletive forms.

e.g. The verb \{go\} = \{went\}; \{sell\} = \{sold\}

The adjective ; \{-er\} = more - ; etc.

3. Sporadic Alternation.

Certain kinds of alteration are systematic and predictable, and require to be described in any treatment. There is another sort, however, which is harder to handle. The best approach to sporadic alternation is to point out a couple of the mechanisms by which an instance may arise. Suppose we find the speakers of a language neatly divided into two groups geographically: those on one side pronounce a certain word in one way, while those on the other side pronounce it in another way. For example, the English word “root”. the two pronunciations are /ruː:t/ and /ruù:t/. Now so long as the difference is correlated with dialects, we do not speak of sporadic alternation. But situations of this kind are not stable. Some people, in due time, hear both /ruː:t/ and /ruù:t/, and sooner or later some speakers acquire both habits of pronunciation, using now the one and now the other in a quite random and unpredictable way. When this has happened, it is called sporadic alternation.
The difficulty is to be sure that a pair of forms constitute a genuine example. For example, many speakers of English use both “hoist”/hoist/ and a more colloquial form “heist”/haist/; this pair has the same origin as that described above for /ruù:t/ and /ruùt/.

But in this case there has been a semantic differentiation: “hoist” and “heist” are not two shapes of a single morpheme, but different morphemes, with similar but distinguishable meanings.

4. General principles:

There are a few principles which are almost university accepted:

(I) Two morphs cannot be allmorphs of a single morpheme if they contrast.

For instance, stricken and struck both appear to be past participles of the verb “strike”. They cannot be morphemically identical; so if they are based on the same stem, the inflectional affixes are different morphemes.

(II) Two morphs cannot be allomorphs of a single morpheme unless they have the same meaning.

For example: the /s/ of ants, the /z/ of tigers, and the /ɔn/ of oxen are all similar enough in meaning that we do not hesitate to consider them as a single morpheme if the other criteria are satisfied. In fact, it is possible that the /ɔn/ of oxen is not the same morpheme as the /z/ of tigers.

III. Even if other criteria are satisfactorily met, we do not consider two morphs to a single morpheme unless the resulting morpheme fits into the emerging grammatical picture of the language in a sensible way.

   e.g. –dom in Kingdom and –y in monarchy

IV. CONCLUSION:

The ways in which the morphemes of a language are variously represented by phonemic shapes can be regarded as a kind of code. This code is the morphophonemic system of the language. The morphophonemics of English is never so simple. There are always many instances of two or more morphemes represented by the same phonemic shape, and there are always cases in which a single morpheme is represented now by one phonemic shape, now by another. Therefore the morphophonemics of English is never trivial.