

# Synonym Usage viewed from Pre-Historic Roots

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## Abstract

If we hope to be good at English, we must learn English vocabulary. Usually, when we study English vocabulary, we just learn it by heart. In this way, we forget vocabulary right away even if we memorize it. The method of study is very important, because we can keep our memory impressively for a long time if we contrive a way of studying. As one way, there is a method of studying English words with Indo-European roots information. Details are described in the introduction. In this paper, synonyms were paid attention to especially, and how they were derived respectively from the Indo-European roots and how they are different were studied mainly. These explanations were added to the "English-Japanese Hyper Dictionary." This is also described in the introduction. This paper is about how to study English vocabulary with Indo-European roots, synonym comparisons and the system "English-Japanese Hyper Dictionary" which enables us to study with Indo-European roots and in which explanations about the derivation process of each synonym were newly added.

## 1 Introduction

### 1.1 Indo-European roots and the AHD

"Indo-European is the name given for geographic reasons to the large and well-defined linguistic family that includes most of the languages of Europe, past and present, as well as those found in a vast area extending across Iran and Afghanistan to the northern half of the Indian subcontinent." [2] For example, English, Dutch, Russian, Spanish, French, Italian, Greek and Hindi exist. "In modern times, the family has spread by colonization throughout the Western Hemisphere. The Indo-European family of languages is descended from the prehistoric Proto-Indo-European language, which was spoken in an as yet unidentified area between eastern Europe and the Aral Sea around the fifth millennium B.C. According to the most widely accepted model, the Indo-European family contains ten principal branches (Anatolian, Indo-Iranian, Greek, Italic, Celtic, Germanic, American, Tocharian, Balt-Slavic, Albanian). Some of the branches likely belong together in larger subgroupings, but the details are controversial and need not detain us. Besides those ten branches, a number of scantily attested and not well understood ancient languages are known that are clearly Indo-European but of uncer-

tain filiation within the family." [2] The information which put stems of Proto-Indo-European into shape is Indo-European roots. It is said that seventy five percent of current English vocabulary is derived from Indo-European roots. To look up English words by going back to Indo-European roots is very interesting because we can trace the development of the words. For studying with Indo-European roots, we need to use AHD (The American Heritage Dictionary). AHD was edited by Calvert Watkins. It was composed as a dictionary for looking up the Indo-European root of an English word and the derivative and for learning these all at once.

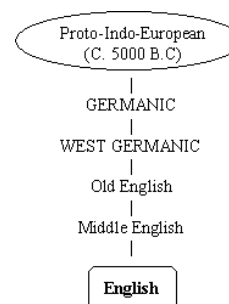


Figure 1: Derivation Process of English

### 1.2 The English-Japanese Hyper Dictionary

"English-Japanese Hyper Dictionary" [8] which makes use of Indo-European roots information and can be used as a web object has already been made by Prof. Ikebe, CAI laboratory at University of Tsukuba and the older graduates of my laboratory. The dictionary enables us to look up the meaning of English words by going back to the Indo-European roots. It is also possible to study what other words exist which have the same Indo-European roots and what relation they have. Additionally, in the synonym list of the Hyper Dictionary, some English words that have common meanings have been listed and we can learn the differences of the words by comparing each Indo-European root. However, as only fifty kinds of synonyms have been listed in this synonym list, it is necessary to study English words one by one with Indo-European roots to add new synonyms there. This list has one weak point. Although we can look up the Indo-European roots and the meaning of each English word, it is difficult to know the process of how each word is de-

rived from its Indo-European roots to current English. So it is necessary to add explanations of the derivation process. However, not all of the words have Indo-European roots. Some words can go back only to Latin, and other words were borrowed from other languages. So many words don't have a distinct derivation process and they are impossible to explain. The words which were added this time were picked in the following way. At first, they were picked from a wordbook for high school students. Second, one member of my laboratory and I divided the "Learner's Progressive English-Japanese Dictionary" [5] into two: A ~ M and N ~ Z. The synonyms in the extent N ~ Z were my responsibility.

### 1.3 Study Purpose

The purpose of this study is to make a more substantial "English-Japanese Hyper Dictionary" by which users can comprehend how respective synonyms were derived from Indo-European roots and how they differ. In the process of making a new Hyper Dictionary, to master how to study English words with Indo-European roots is my desire.

## 2 How to study with Indo-European roots

In this section, there are two examples. The explanations about derivation process from Indo-European roots to English are described respectively. These are my thought based on Indo-European roots information.

### 2.1 Example one

For example, we look up the word "watch" in the AHD. Then we are led to the Indo-European root "weg-2." If we look up this item, following information is found.

"weg-2" To be strong, be lively.

1. WAKE ... from Old English, to wake up, arise, to be awake
2. WAKEN ... from Old English, to awake
3. WATCH ... from Old English, to be awake
4. WICKED, WITCH, BEWITCH ... from Old English, wicca, sorcerer, wizard (feminine witch). from Germanic, necromancer (<"one who wakes the dead")
5. BIVOUAC ... from Old High German, watch, vigil
6. a. WAIT ... from Old North French, to watch  
b. WAFT ... from Middle Dutch and Middle Low German, to watch guard
7. VEGETABLE ... from Latin, to be lively

8. VIGOR, RAVIGOTE ... from Latin, to be lively
9. VELETTE, VIGIL, VIGILANTE, REVEILLE, SURVEILLANT ... from Latin, watchful, awake
10. VELOCITY ... from Latin, fast, "lively"

In item three, "watch" is found. From the meaning "to be strong, be lively" of Indo-European roots, the Old English meaning "to be awake" was derived. This is because people are lively and strong just when people are awake. When people are awake, they watch something, so "watch" is derived from Old English "to be awake." Similarly, "wake" and "waken" are derived from Old English. Next, in item four, "wicked," "witch," and "bewitch" are derived from Old English "necromancer." This is in relation to one who wakes the dead. In item seven, "vegetable" is found. This is derived from the Latin "to be lively," because vegetables grow lively. In item nine, all words are in relation to "watchful, awake," so these derivation processes are easy to understand. All of these words have the same Indo-European roots and have something in common.

### 2.2 Example two

For example, we look up the word "task" in the AHD. Then we are led to the Indo-European root "tag." If we look up this item, the following information is found.

"tag" To touch, handle

1. TACT, TANGENT, TANGIBLE, TASK, TASTE, TAX, ATTAIN, CONTACT, INTACT, TACTORECEPTOR, TANGORECEPTOR ... from Latin, to touch
2. ENTIRE, INTEGER, INTEGRATE, INTEGRITY ... from Latin, intact, whole, complete, perfect, honest
3. CONTAMINATE ... from Latin, to corrupt, by mixing or contact (<"bringing into contact with")

In item one, "task" is found. In this case, the meaning of the Indo-European root is "to touch or handle." This became Latin in the same meaning "to touch." A task is done by hand, so it is necessary to touch. So the current meaning "task" is derived from Latin to current English. The others of item one are in relation to "to touch." In item two, "entire," "integer," "integrate," "integrity" become Latin "intact, whole, complete, perfect, honest." They are related and have a similar meaning, so it is easy to understand the reason for this derivation. However, the reason that this Latin meaning is derived from the Indo-European roots is difficult to understand. Sometimes such examples like this exist. In item three, "con-

taminate" is derived from Latin "to corrupt by mixing or contact." This is almost the same meaning. This Latin meaning is derived from Indo-European roots because "mixing or contact" is done by touching or handling.

### 3 Synonym Comparison

The following examples all compare synonyms. In the case of 3.1, "arrive" and "reach" have a similar meaning, but they have a little difference. The difference is understood by comparing the respective derivation processes. These explanations are my thought based on Indo-European roots information.

#### 3.1 Example one

1) arrive

"rei-1" To scratch, tear, cut.

ARRIVE ... from Latin, bank (<"that which is cut by a river")

From the meaning "cut" of Indo-European roots, the meaning "bank" is derived into Latin. This is because a bank is torn into two by rivers. "Arrive" in current English is derived from Latin because someone or something arrives at the other bank if they leave one bank.

2) reach

"reig-2" To reach, stretch out.

REACH ... from Old English, to stretch out, reach

In this case, the meaning of this Indo-European roots is "to reach, stretch out." From here to Old English, and from Old English to current English, the same meaning is used.

#### 3.2 Example two

1) strange

"eghs" Out.

STRANGE ... from Latin, outward

The meaning of this Indo-European root is "out." This is derived into Latin in a similar meaning "outward." The outside is a strange and unfamiliar place. This is connected to the current meaning "strange."

2) curious

"c#ura" Care.

CURIOUS ... Latin noun of unknown origin

It is just understood that the Indo-European root of "curious" has the meaning as "care," but the derivation process is unknown.

3) odd

"No Indo-European root"

Deviating from what is ordinary, usual, or expected; strange or peculiar.

The Indo-European root of this word "odd" doesn't exist. The current meaning is above.

4) funny

"No Indo-European root"

Strangely or suspiciously odd; curious.

The Indo-European root of this word "funny" doesn't exist. The current meaning is above.

5) queer

"terk-w-" To twist.

QUEER ... from Middle Low German, oblique

From the meaning "twist" of the Indo-European root, the meaning "oblique" is derived into Middle Low German. Oblique means diagonal or indirect. These are connected to queer.

#### 3.3 Example three

1) get

"ghend-" To seize, take.

GET ... from Old Norse, to get

In this Indo-European root, the meaning "to seize, take" exists. This is derived into Old Norse in the meaning "to get." To seize and take is in relation to "to get." From Old Norse to current English, the meaning is preserved in the same meaning.

2) gain

"wei@-" To go after something, pursue with vigor, desire, with noun forms meaning force, power.

GAIN ... from Old French, to obtain, from Germanic, to hunt, plunder

From the meaning "to go after something, pursue" of the Indo-European root, the meaning "to hunt, plunder" is derived into German. This is because hunting means to

pursue and obtain game. From here, the meaning "obtain" is derived into French. From French to current English, "obtain" is preserved in a similar meaning as "gain."

### 3) obtain

"ten-" To stretch.

OBTAIN ... from Latin, to hold, keep, maintain (<"to cause to endure or continue, hold on to.")

In the Indo-European roots, the meaning "to stretch" exists. From the meaning to endure or continue with stretched, the meaning "to hold, keep, maintain" is derived from Indo-European roots to Latin. From here, "obtain" in current English is derived from Latin, because we sometimes obtain something by endurance.

## 3.4 Example4

### 1) shine

"skai-2" To gleam.

SHINE ... from Old English, to shine

In this Indo-European root, the meaning "to gleam" exists. This is derived into Old English in the meaning "to shine." "To gleam" is in relation to "to shine." From Old English to current English, the meaning "to shine" is derived in the same meaning.

### 2) beam

"bheu@-" To be, exist, grow.

BEAM ... from Old English, tree, beam

This Indo-European root means "to be, exist, grow." From growing, the meaning "tree" is derived into Old English. From beaming like a tree, the meaning "beam" is derived from Old English into current English.

### 3) glare

"ghel-2" To shine; with derivatives referring to colors, bright materials, gold (probably "yellow metal"), and bile or gall.

GLARE ... from Middle English, to glitter, stare, from a source akin to Middle Low German, to glisten

This Indo-European root means to shine; with derivatives referring to colors, bright materials or gold. From here, a similar meaning "to glitter" is derived into Middle English. From Middle English to current English, "glare" is derived as a meaning which is more powerful than glit-

ter.

### 4) glimmer

"ghel-2" To shine; with derivatives referring to colors, bright materials, gold (probably "yellow metal"), and bile or gall.

GLIMMER ... from Middle English, to glitter, stare, from a source akin to Middle Low German, to glisten

This Indo-European root means to shine; with derivatives referring to colors, bright materials, gold. From here, a similar meaning "to glitter" is derived into Middle English. From Middle English to current English, "glare" is derived as a meaning which is less powerful than glitter.

### 5) shimmer

"skai-2" To gleam.

SHIMMER ... from Old English, to shine, brightly

In this Indo-European root, the meaning "to gleam" exists. This is derived into Old English in the meaning "to shine." "To gleam" is in relation to "to shine." From Old English to current English, the meaning "shimmer" is derived as a meaning which is less powerful than "shine."

## 4 Renewal of the Hyper Dictionary

### 4.1 Database of the Hyper Dictionary

The database of Hyper Dictionary is a Windows application called "Access." As stated in 1.2, the "English-Japanese Hyper Dictionary" was made by Prof. Ikebe, CAI laboratory at University of Tsukuba and the older graduates of my laboratory. The database was also made by them. Word Master consists of an index, spelling, headline distinction, comments, part of speech, meanings, synonyms, word root1, word root2, word root3, word root4, prefix1, prefix2, stem and reverse spelling.

### 4.2 Renewal of the Database

To add new synonyms, a new table was made and linked to the database which was already made. Because all of the words that were added as synonyms this time weren't in the database, it was necessary to add words in the Word Master. So a new Word Master was made and linked to the old Word Master. The main study is to add explanations about the derivation process of the respective synonyms. This information is written in the meaning part of the Word Master.

### 4.3 New Hyper Dictionary

Eighty-six kinds of synonyms (two hundred and sixty words) were linked to the database and the derivation process was explained respectively. If we use the new Hyper Dictionary, the way of studying described in Example one ~ Example four in this section is realized. This explanation has not ever existed, so this was the main work.

## 5 Conclusion

For studying English vocabulary, it is efficient to use a method with Indo-European roots. This method enables us to memorize more impressively. When we look up one word, we can look up and study some other words which have the same Indo-European roots. Particularly, the main work of this study is synonym comparison and each synonym's derivation process from Indo-European root to English is added to the "English-Japanese Hyper Dictionary." Even if each synonym has a similar meaning at present, their derivation process is different. The "English-Japanese Hyper Dictionary" is useful to realize this method of studying.

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