否定接頭辞 non-の言語学的特徴
— in-と un-との比較において —

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The Linguistic Features of the negative prefix *non-*
— Comparison with *in-* and *un-* —

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Abstract

Some scholars have described the linguistic features of the English negative prefixes, especially *dis-*, *in-*, *un-* and *non-* in each of their papers. Allen (1978a, b) shows the phonological, morphological, syntactic and semantic differences of *in-*, *un-* and *non-*, classifying them into two classes, Class I affixes and Class II [1] affixes based on linguistic features. It is true that all affixes have their own linguistic features for producing new words. For example, the *un-* prefix is productive of a great number of derivative adjectives. Another affix, *-less*, occurs mainly at the end of nouns and verbs to produce new adjectives. The comparison of some of the negative affixes according to the methodology of Siegel (1974) and Allen enables us to appreciate easily the specific distinctions of the affixes concerned. However, *non-* in itself has not been examined in extensive detail by scholars except in the context of comparison with other negative prefixes. In general, *non-*

occurs at some syntactic categories such as nouns as in *non-acceptance*, adjectives as in *non-accountable*, and adverbs as in *non-consensually*, while *in-* and *un-* attach mostly to adjectives. In this brief point, we will see that *non-* is much more productive than the other two prefixes. The extent to which *non-* is used in samples found from 1300's to 1800's is shown in the following discussion. In this paper, I will also show the linguistic features of *non-* from various (especially, diachronic) viewpoints, considering when this prefix came into English.

For this paper, the *Oxford English Dictionary 2ⁿᵈ edition*, which gives us general information of *non-*, was indispensable in the examination of this prefix. Besides the *OED*, this paper made much use of the analysis by Allen (1978a, b).

1. The general information of *non-*

The negative prefix *non-* is one of the Latinate bound morphemes like *in-* and *dis-*. Now that this prefix is perceived as being a productive morpheme among English words, English speakers employ it freely for producing new words. The prefix is often compared with *in-* and *un-* in order to examine linguistic features, phonological, morphological and semantic in detail. This section will deal with general information of *non-* and is heavily influenced by previous research by Allen.

1.1. Phonology

As the three negative prefixes *in-*, *un-* and *non-* have been considered by many scholars, their distinctive phonological characteristics have been shown. Siegel (1974) and Allen especially have had a great influence in the

examination of the negative prefixes. In their respective papers, the Class division of every English affix is shown according to its linguistic features, about which they give important information concerning their features. Among the three negative prefixes, only *in-* is categorized in Class I , the others being in Class II. This is because *in-* has specific features which *un-* and *non-* do not possess. As we know, *in-* should be assimilated to the first sound of roots depending on the specific phonological environment involved, producing *il-* in *illegal*, *im-* in *immoral* and *ir-* in *irregular*, whereas *un-* and *non-* are not productive of such sound changes. However, the stress which *non-* carries must be paid attention to carefully, since it is undoubtedly similar to that of the initial lexical elements of many compound words. Comparing this with the *un-* words, Allen shows the examples of the stress pattern of *non-* as follows:

(1) Un-; single primary stress   Non-; double stress
     unwéarable   nón- wéarable
     unpollúted   nón-pollúted
     unfíxed   nón- fíxed
     unrevolútionary   nón-revolútionary

(Allen 1978b, 4)

As to the examples above, it is obvious that the primary stress falls on the first element as well as on the second one in derived words prefixed by *non-*. It seems to me that this pattern is almost similar to compound words as in *chérry brándy* or *ólive óil*[2]. It is true that *non-* is definitely now an English prefix, but the stress pattern is not similar to that of *un-* words but of compound words[3]. In order to handle the problem of Class division with regard to *non-* and compound words, Allen suggests that they should be categorized in Class III apart from *un-*. I will not deal with this position taken

by Allen made about the classification of *non-* in this paper.

As for the stress pattern of the three negative prefixes, Namiki (1994) gives examples in which the secondary stress falls on *non-*; they are *nòn-fixed* and *nòn-pollúted*. Although these examples slightly differ from the ones given by Allen who suggests that *non-* itself has the primary stress in the derivatives, it is certain that *non-* has its own stress and does not have an influence on the stress of roots. It is true that *in-* often carries primary stress in its derivatives, but a different feature from the behavior of *non-* is that *in-* can cause the primary stress of some words to move as in *infinite* and *impious*. Furthermore, when stress movement occurs, sound change may also take place in the roots. We cannot see these kinds of stress movement and sound change in any *un-* words.

From these phonological behaviors, we will recognize that the combination of *in-* and roots is the strongest possible covered here because assimilation and sound change do not occur within the framework of *un-* and *non-* prefixations.

1.2. Morphology

For morphological features, it is essential to look into words in which prefixes occur. Allen makes three remarks about the roots in which the three prefixes take place. First, he notes 'the fact that *in-* is found attached to phonological sequences which are not words, as well as to sequences which are words in his paper in 1978b.

(2) *ert[4]   inert   *unert   *non-ert
     *placable   implacable   *unplacable   *non-placable
     *trepid   intrepid   *untrepid   *non-trepid

*sipid	insipid	*unsipid	*non-sipid
*maculate	immaculate	*unmaculate	*non-maculate

<div align="right">(Allen 1978b, 2)</div>

Looked into closely, it is apparent that *in-* attaches to a bound morpheme whose meaning cannot be specialized in itself. A few *un-* words have roots which seem to be something other than a word, as *uncouth, unkempt* and *untoward*. Allen, however, explains that *couth, kempt* and *toward*[5] were words which became archaic or dialectical in PE. However, every *non-* word is always derived by means of the prefixation of *non-* to free morphemes which do exist in PE without being archaic or obsolete. Since the first appearance of *non-* is in the 14th century according to the *OED* and the application of that Latinate prefix in English is much newer than that of the same Latinate *in-* which was employed since the Middle English Period (ME), the roots prefixed by *non-* have firmly established themselves as PE words.

Second, Allen shows 'suffix-derived words', which can be attached only by *un-* or *non-*.

(3)	-ish	*inselfish	unselfish	non-selfish
	-ful	*inthoughtful	unthoughtful	non-thoughtful
	-ing	*indying	undying	non-dying
	-ed	*infreckled	unfreckled	non-freckled
	-some	*inwholesome	unwholesome	non-wholesome
	-ous	*inenvious	unenvious	non-envious
	-like	*inchildlike	unchildlike	non-childlike
	-worthy	*inseaworthy	unseaworthy	non-seaworthy
	-ly	*infriendly	unfriendly	non-friendly
	-y	*inlucky	unlucky	non-lucky

<div align="right">(Allen 1978b, 2-3)</div>

All the suffixes above are the adjective-deriving morphemes, so that *in-* and *un-* could, in principle, occur with any adjectives in (3). However, *in-* is prohibited from prefixing the adjectives suffixed by the bound morphemes above because *in-*, which is categorized in Class I affixes, cannot precede the affixation of Class II to which the suffixes above belong. Meanwhile, since *un-* belongs to Class II, it can prefix to any adjectives derived by the suffixes concerned here. As with the case with *un-*, *non-* is also categorized in Class II, so that *non-* prefixation can occur with the adjectives above. The difference between *un-* and *non-* lies in the register of the occurrence of the two prefixes. In general, adjectives have characterized the syntactic category for *un-* prefixation since the Old English Period (OE), whereas *non-* obviously attaches to several parts of speech[6]. The verb-deriving *un-*, which Allen calls 'reversative *un-*', is distinct from the negative *un-*, but the negative *non-* can attach to some verbs, forming adjectives as in *non-stop* and *non-slip*. The *OED* has unusual nonce-words such as *non-act* and *non-licentiate* from the 17th century. This morphological behavior of *non-* proves that *non-* is different from *un-* and *non-* prefixation is untight to its roots and can occur with more parts of speech.

Last, consideration should be given to whether compound words can allow these prefixes to attach.

(4)	non-crush fabrics	*un-crush fabric
	non-drip pouring lip	*un-drip pouring lip
	non-skid tires	*un-skid tires
	non-stop flight	*un-stop flight
	non-sift flour	*un-sift flour
	non-stick surface	*un-stick surface

(Allen 1978b, 4)

This compound-affixation problem with regard to *un-* and *non-* remains unresolved. For *un-* prefixation to compound words, Allen takes the position of non-occurence because he considers that the compound process takes place after every affixation process. According to Allen, since *un-fuel-injected* is derived from the *un-* prefixation to the compound word *fuel-injected*, *un-* occurs after the compound process. He does not admit the existence of *un-fuel injected*. However, Selkirk (1982) insists that *un-* can occur with respect to some compound words as in *un-self-sufficient* and *un-easygoing*. He states that *un-* prefixation to compound words must be considered not from Compound-Affix Ordering Generalization[7] but from semantic condition. He suggests that the gradable compound adjectives such as *topheavy* can be prefixed by *un-*. For *non-* affixation, it seems to me that the prefix can occur with a lot of compound words as in (4). However, there are still a lot of *non-* compound words to be considered in detail as follows:

(5)　non-slip soles　　　　　(*slip soles)
　　　non-crush fabrics　　　 (*crush fabrics)
　　　non-drip pouring lip　 (*drip pouring lip)
　　　non-skid tires　　　　　(*skid tires)
　　　non-stop flight　　　　 (*stop flight)
　　　non-stop train　　　　　(*stop train)
　　　non-stick surface　　　 (*stick surface)
　　　non-baste turkey　　　　(*baste turkey)
　　　non-sift flour　　　　　(*sift flour)
　　　non-wax tiles　　　　　 (*wax tiles)
　　　non-tarnish silverware　(*tarnish silverware)

(Allen 1978a, 56-7)

These words are derived from [[non-X] + Y], not [non-[X + Y]], since [X + Y] shows a syntactic connection, not a morphological one. It is certain that *non-*

cannot occur in syntactic relation like *non-* + [Verb + Noun], so that *non-* attaches to *X* first and later *Y* attaches to *non-X*. One question can be raised here. As I have described, the connection of *non-* to roots is looser than that of *un-*. In spite of this, *non-* has an influence on the syntactic category of the roots, as with regard to the fact that *stop*, which is originally a verb, appears before the *non-* affixation. It can be said that *non-* sometimes changes the syntactic category of its roots (especially with verb which it often changes into adjectives).

1.3. Semantic Features

The apparent distinction of *non-* from *in-* and *un-* is that the former creates contradictories while the others produce contraries. At this point, Allen shows some examples as follows:

(6)　That was a very un-American gesture.
　　　That was more un-American in 1960 than today.
　　　*That was a very non-American gesture.
　　　*That was more non-American in 1960 than today.

(Allen 1978b, 5)

Since *un-* denotes contrary negation, the gradable adjective *American* can be prefixed by both *un-* and *more*. This contrary negation refers 'to a specific point on the negative side of a positive-negative continuum' according to Allen. As for *non-*, it denotes contradictory negation, so that it cannot occur with *American*. Allen states that the contradictory negation refers 'to the whole of the negative side of the positive-negative continuum.' A detailed analysis based on Allen's statements may be shown as follows:

(7) unwearable = [not able][to be worn]
     non-wearable = [not][able to be worn]
     unreliable = [not able][to be relied on]
     non-reliable = [not][able to be relied on]

<div align="right">(Allen 1978b, 5)</div>

As for *in-*, it has the same function as *un-*. But it often sympathizes the meaning of roots as in *innumerable* which has the meaning of 'too many to be counted' according to Oxford Dictionary of English (ODE). The negative counterpart of *numerable* could be *unnumerable*[8]. The strong relationship between *in-* and its roots causes this semantic confusion, whereas *un-* and *non-* do not bring about this complexity.

2. Period of the occurrence of *non-* in English

Namiki (1994) lists four negative prefixes in his paper, which are *a-* in *amoral*, *dis-* in *disloyal*, *in-* in *infinite*, *un-* in *unfair* and *non-* in *nonconformity*. All the prefixes above other than *un-* originated in foreign languages. Since *un-* was the only negative prefix to negate words in OE, English speakers in those days had no choice put to employ *un-* in all situations if necessary for word negation. In the course of time, a lot of foreign words flowed into English vocabulary and began influencing the way of English speakers negating words in English sentences. Historically speaking, the Norman Conquest in 1066 stimulated English speakers to absorb a great number of French and Latin words, and it is certain that among the foreign words, not only free morphemes but derivative and compound words were included as well. It is hard to know whether bound morphemes came into English without being attached to free morphemes or they did so attached. At any rate, some of the foreign negative prefixes came to appear in English

sentences in ME. As for *non-*, the *OED* shows *non-power. non-resistance* and *non-suit* as examples of *non-* words which appeared first in English sentences at the end of the 14th century. After the 15th century, *non-* words seem to have been freely produced by English speakers according to the *OED*. In PE, it is doubtless that *non-* is one of the most productive prefixes, so that English speakers use it freely for negating words in all situations. In order to look into the productivity of *non-*, the British National Corpus (BNC) should be of use since it indicates the frequency of occurrence of *non-* words in PE. The fifty top frequency words in this category as shown in the BNC appear in the following Table 1 and will be used to look into the number of the sentences cited in the *OED* where those fifty words are used. Besides Table 1, Table 2 shows the numbers in each era representing the frequency of occurrence of *non-* words in the examples of the *OED*.

Table1. The Frequency of *non-* words shown by the BNC

	WORD	FREQUENCY		WORD	FREQUENCY
1	nonsense	1551	26	non-league	99
2	nonconformist	442	27	non-statutory	92
3	non-existent	387	28	non-intervention	91
4	non-executive	281	29	non-human	90
5	non-verbal	246	30	non-zero	90
6	non-stop	246	31	nonsensical	90
7	non-aligned	239	32	non-compliance	89
8	non-manual	218	33	nonchalantly	88
9	non-standard	194	34	non-fiction	87
10	non-linear	185	35	non-domestic	85
11	non-specific	170	36	non-toxic	83
12	non-smoker	168	37	non-insulin	81
13	nongovernmental	156	38	non-violence	80
14	non-resident	155	39	non-Hodgin	77

15	non-payment	152	40	non-alignment	76
16	non-member	148	41	non-committal	76
17	non-profit	144	42	non-specialist	76
18	non-proliferation	134	43	non-equity	75
19	noncomformity	132	44	non-descript	75
20	non-traditional	125	45	non-academic	74
21	non-party	123	46	non-nuclear	73
22	non-communist	117	47	non-medical	72
23	non-stick	117	48	non-UK	69
24	non-violent	115	49	non-alcoholic	67
25	non-political	108	50	non-commercial	66

Table 2. The Frequency of *non-* words from the 1300's to 1800's

non- words	1300's	1400's	1500's	1600's	1700's	1800's
alcoholic	0	0	0	0	0	3
aligned	0	0	0	0	0	0
alignment	0	0	0	0	0	0
chalantly	0	0	0	0	0	3
committal	0	0	0	0	0	8
compliance	0	0	0	1	3	3
conformist	0	0	0	10	6	11
executive	0	0	0	0	0	0
existent	0	0	0	3	2	7
fiction	0	0	0	0	0	2
governmental	0	0	0	0	0	2
Hodgin	0	0	0	0	0	0
human	0	0	0	0	0	6
intervention	0	0	0	0	0	3
league	0	0	0	0	0	0
linear	0	0	0	0	0	2
member	0	0	0	1	0	5
natural	0	0	0	3	5	11
nuclear	0	0	0	0	0	4
party	0	0	0	0	0	2
payment	0	2	2	2	2	2

political	0	0	0	0	0	3
profit	0	0	0	0	0	2
proliferation	0	0	0	0	0	0
resident	0	1	6	11	5	16
sense	0	0	0	18	13	19
sensical	0	0	0	5	5	8
specialist	0	0	0	0	0	2
stick	0	0	0	0	0	0
stop	0	0	0	0	0	0
suit	0	3	8	9	8	8
toxic	0	0	0	0	0	1
power	1	4	1	1	0	0
residence	0	0	0	2	4	10
smoker	0	0	0	0	0	3
specific	0	0	0	0	0	2
standard	0	0	0	0	0	2
verbal	0	0	0	0	0	3
violence	0	0	0	0	0	0
violent	0	0	0	0	0	0
zero	0	0	0	0	0	1
TOTAL	1	10	17	66	53	154

The negative *non-* is one of the most productive prefixes, producing a great number of English words. *In-* which came into the English language in ME is the same Latinate bound morpheme as *non-*, but *non-* is, relatively speaking, a new-comer to English. Although both prefixes are frequently used by English speakers, the number of *non-* words listed in the *OED* is less than that of *in-* since *non-*, which might be considered as a compositional prefix, generates words whose meanings can be inferred with ease. In spite of the small number of *non-* occurrences in the dictionary compared with *in-*, it is certain that the BNC gives a lot of *non-* words both in the spoken and written languages.

The BNC shows *nonsense* as the most frequent word among *non-* words. The number of that word is more than three times as large as that of *nonconformist* which is in the second place. According to the *OED*, *non-* was chiefly used with nouns of action and gerunds and most of the derived words were legal terms. Moreover, from the 17th century the prefix became less restricted in use and began to occur with adjectives and adverbs as well. Most of the words listed above are nouns or adjectives. Since the root *sense* came into the English word in the 14th century, it had fully established itself as an English word by the time *non-* prefixed itself to *sense* in the 1600's. After the 17th century, *nonsense* has been used frequently down to PE. There are two exceptional *non-* words in Table 1, which are *non-Hodgin* and *non-UK*. These two words are composed of *non-* and proper nouns. This word-formation pattern cannot be seen in *in-* prefixation but sometimes in *un-* prefixation as in *un-American*. The proper nouns prefixed by *non-* are either nouns or adjectives, whereas *un-* proper nouns are always adjectives. It can be said that *non-* sometimes makes the syntactic category of the roots into another, but *un-* does not.

Historically speaking, the period of the first appearance of *non-* is, as I have stated, the 14th century. Among the words in Table 2, *non-power* is the only word that is cited from the example of the 14th century in the *OED*. The root *power* came into the English word in the 13th century and after that period *non-* might prefix to *power* in English or the derivative *non-power* might have come into English directly in the 14th century.

Since the 14th century the appearance of the sentences of *non-* words has been gradually increasing. In 1600's, the figure goes up sharply, which means that probably *non-* established as a useful negative prefix in English at that time. The standardization of English as a literary language happened among English speakers around that time, who used their own

language to greater effect than ever before in various situations. Then, the figure in the 1700's decreases as English politics turns inward and destabilizes. The figure goes up again in 1800's. The reason for this must be found in the increasing numbers of the educated class, who were exposed at an early date in their education and very thoroughly to classical Latin and, to a lesser extent, to Greek, languages which were considered to be important sources of inspiration for the various fields such as literature and art. The number of examples, thus, becomes much larger than that for any other period.

Before the appearance of the contradictory *non-*, it seems to me that the syntactic negation with *not* was used as the sole contradictory in English, because *non-* plays the same roles as not for the negation, and *non-* did not exist in OE, which means that *not* is the only word that has the contradictory negation.

3.   Conclusion

So far, I have stated the linguistic features and the numbers shown in the *OED* for *non-*, compared with *in-* and *un-*. In fact, the statements in this paper are not enough to cover the whole of the problems facing the investigation of *non-*. Although it is obvious that *non-* is a Latinate bound morpheme, the *Middle English Dictionary* tells us that the occurrence of *non-* is a compound process, not a derivative one. Thus, *non-apparaunce* is composed of the Latinate adjective *non* 'not' and the noun *apparaunce*, whereas the *OED* lists *non-appearance* as a derivative in which *non-* prefixes to the base *appearance*. I have described *non-* as a negative prefix throughout this paper based on the *OED*. Besides this problem, Allen proposes that *non-* should be categorized in Class Ⅲ, which means that, since *non-* is not originally a

prefix but a Latinate free morpheme *non*, it can be considered to be a compound word formation or something like *-like, -wise* and *over-* which are originally Germanic free morphemes. The problem of the classification of English affixes must be reconsidered from the viewpoint of the features of each affix.

Notes

1. For Class I and Class II, Oishi (1994) pp. 37-8.
2. The stress patterns of compound words are described well in Oishi (1994).
3. Allen (1978a) says that 'appropriate information must be available in some form to the stress rules so that words derived in *un-* and in *non-* are not assigned identical stress patterns.'
4. It is true that the words listed in (2) other than *inert* seem to me to exist in Present Day English (PE), but Allen does not make any statements about the actual usage of *placable, trepid, sipid* and *maculate*. I will not discuss this problem in this paper.
5. This word certainly exists now, but the actual usage in the PE is the prepositional role, not the adjectival one. The derived word *untoward* should be categorized in one of the adjectives because of the fact that *un-* mostly attaches to adjectives.
6. According to the *OED*, *un-* prefixed to several parts of speech in OE. The *non-* prefixation was chiefly limited to nouns and gerunds. This paper is based on Allen's analyses, so that I will discuss the syntactic category of the prefixation in another paper.
7. For this theory, see Allen (1978a) pp.76-7.
8. The actual existence of this word is in an example of *Brut* in 1200. *Brut* 316 Men founden vnnumerable multitudes of hem [*sc.* sparrows] dede in feldes.

Online Resource

The British National Corpus URL: (es-corp.unizh.ch)

The Oxford English Dictionary 2nd edition. URL: (http://www.oed.com/)

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