Syntax and Semantics of the Prefix *mis-*

Isabelle Haïk
Université de Caen - ELSAP
Jeune Equipe "syntaxe anglaise", Paris X-Nanterre

1. Introduction
1.1. Introduction

The aim of this article is to account for the distribution of the prefix *mis-* as it is used nowadays. We will try and determine whether the constraints on it are formal (morphological), semantic or both.

1.2. verbs with *mis-*

Below is a list of verbs with the prefix *mis-*:

(1) misadvise misally misapply misapprehend misappropriate misarrange misbecome misbehave misbelieve (arch) misbrand (=mislabel) miscalculate miscall miscarry miscast miscolor misconceive misconduct misconstrue miscount miscreate (create amiss, form badly) misdate misdeal misdemean (rare: conduct (oneself)) misdirect misdo (tr: do wrongly; obs.int: do evil) misdoubt (arch: have doubts) misemploy misesteem misfile misfire misfit (tr, intr), misgive (tr: cause fear, intr: feel fear) misgovern, misguide mishandle mishear misinform misinterpret misjudge mislay mislead misklike (arch: displease; dislike) mismanage mismatch (tr) mismate (tr, intr) misname misperceive misplace misplay, (tr, intr: play wrongly or badly) misplead (tr, intr) misprint misprize (OF mesprisier) (despise) mispronounce misread misreckon misremember misreport misrepresent misrule missay (arch: "m,dire") misshape (arch: deform) misspeak misspell misspend misstate mistake misthink (arch: think mistakenly) mistime mistranslate mistreat mistrust misunderstand misuse misvalue misword miswrite

In this data, some of the verbs are archaic forms, such as *misdo*, *misgive*, *mislike* or *missay*, in which the prefix *mis-* conveys the meaning "bad", and not "wrong", and does not directly qualify the base, but gives a negative connotation to the new verb. New forms, which are the object of our study, can only display the meaning "wrong" and there is a clear modification of the base by the prefix.

1.3. Descriptive generalization

First, *mis-* corresponds to four possible grammatical functions, which is made obvious by its non cooccurrence with them. The (a) examples below indicate whether this grammatical function must be expressed or whether it is optional with the base verb (the verb without *mis-*):

i) second complement, Goal (1) or location (2)

(2)　　a.　　　This led us *(to the wrong conclusion)
　　　　b.　　　This misled us (*to the conclusion that...)

(3)　　a.　　　We filed the articles (in the drawer)
　　　　b.　　　We misfiled the articles (*on the library shelves)

(4)   a.   We placed the books (in alphabetical order/on the shelves)
       b.   We misplaced the books (*in the wrong order/*on the shelves)

ii) second complement

(5)   a.   We advised them (to take the plane)
       b.   We misadvised them (*to take the plane)

iii) Small-Clause predicate

(6)   a.   They represented her ideas (as an incentive for a strike)
       b.   They misrepresented her ideas (*as an incentive for a strike)

(7)   a.   They consider her *(smart)/They're considering her (*smart)
       b.   They misconsider her (*as smart)/*They're misconsidering her

iv) object oriented manner adverb
       We justify in section 2.2 the qualification of these adverbs as object oriented for the verb *behave*, which does not seem to take an object.

(8)   a.   They treat the employees *(badly)
       b.   They mistreat the employees (*badly)

(9)   a.   She worded the letter *(carefully)
       b.   She misworded the letter (*with awkward titles)

(10)   a.   They're behaving (= "well")
       b.   They're misbehaving (*in a strange manner)

(11)   a.   He managed the business (well)
       b.   He mismanaged the business (*in a stupid way)

Second, certain verbs seem to take no phrase other than the direct object, such as *read* in (12a), and may nevertheless take *mis-*, as in (12b):

(12)   a.   John is reading a book
       b.   John misread you

What happens is that *mis-* is prefixed to the verb with the metaphorical meaning of "interpret", a meaning associated with the syntactic projection of a direct-object modifier, as in a small-clause structure or an object-oriented adverb:

(13)   a.   John read your words improperly
       b.   John read your words as an incentive for a strike

Similarly, a verb such as *consider* means "think about" when used without an object modifier and "judge, think as" when used with one. With *mis-*, the reading is the second one:

(14)   a.   They're considering the problem ("thinking about it")
       b.   They're misconsidering the problem ("not seing what it is about")

At this point, one could give as a rule that *mis-* means "the wrong way", "improperly", and that it is attached to base verbs which are compatible with these meanings. However, not all verbs compatible with a modifier meaning "the wrong way" are compatible with the prefix, like **misspeak* (*to a person in authority*) or **misturn* (*a key*, for instance), **misdress* vs *misbehave* or **misconclude* vs *misjudge*. This kind of phenomenon is well-documented (cf. Aronoff, 1976), restrictions of all kinds may apply to specific affixations, semantic, morphological or phonological, and it is the task of this article to determine the nature of the restrictions.

Moreover, the semantic contribution of affixes in general is that of functional categories, which express negation, (cf. *undo*, *impossible*), time relations (*prepaid*, *postnuclear*), space relations (*anteposition*), modality (*understandable* "which can or may be understood") or it may be that of prepositions, such as *anti-* "against", or of adverbs with the meaning of an operator, such as *re-* "again". Affixes may also have the meaning expressed by a semantic primitive, which appear in the semantic decomposition of a predicate, as effected in Dowty (1979), Jackendoff (1983), Hale and Kayser (1993), Levin and Rappaport (1995) and others, such as causation, e.g. *-ify*, in *electrify* or *-ize* in *americanize*. However, there do not seem to exist affixes with a notional meaning. This seems to be a condition on affixes.

Our concern will be twofold. First, we will show that the prefixation of *mis-* displays both syntactic and semantic regularities. Second, we will check whether *mis-* obeys the rule that affixes, if they carry meaning, may only carry the meaning of a primitive notion or that of an operator.

2. Syntactic regularities
2.1. The condition

As we saw above, and that seems practically always true, *mis-* corresponds to a direct-object modifier, that is to say, to a phrase which semantically bears on the direct complement of the verb (see Guimier 1996 for a discussion of manner adverbs and their frequent scope on direct objects):

(15)   **Descriptive generalization**
         The verbal prefix *mis-* corresponds to a direct-object modifier.

This is obvious with all the transitive verbs. In the cases of second-objects, as in (2)a-b, (3)a-b and (4)a-b, such phrases semantically bear on the direct object: they express the location of the referent of the direct object, so, again, the generalization seems correct.

The problematic cases are the instances of intransitive verbs, *misbehave* and *misfire*, which we consider in turn.
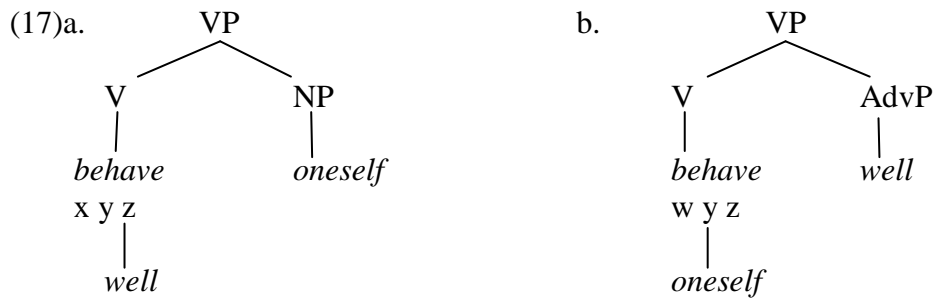
2.2. The case of *misbehave*

This verb may occur with a reflexive direct object: *behave oneself*, meaning "behave well". Even though the direct object and the adverb may not cooccur, we will not say that they occupy the same function. Rather, we will assume that one must be "absorbed", in a way to be made precise, when the other is expressed:

(16)   a.   Behave oneself (*well)
         b.   Behave (*oneself) well

Let us assume a representation such as in Zubizarreta (1987), in which the lexical verb sees one of its argument places saturated by a constant, here either *oneself*, when the syntactic

projection *behave well* is obtained, or the constant *well* when the syntactic projection *behave oneself* is obtained:

(17)a.

```
            VP                              b.            VP
           /  \                                          /  \
          V    NP                                       V    AdvP
          |     |                                       |      |
       behave  oneself                               behave   well
        x y z                                         w y z
          |                                             |
        well                                         oneself
```

With such representations, it is possible to define *oneself* in (17)b as a Case-marked NP, since it is linked to the argument-place that in normal conditions projects onto the direct object, Case-marked, position, and it is possible to define *well* as a DO modifier, whether it is attached lexically to the verb, as in (17)a or whether it projects in the syntax while the DO does not. This possibility stems from the one-to-one correspondence between syntactic arguments and argument places.

It is now interesting to wonder how *misbehave* projects to understand the syntactic role of *mis-*, since *mis-* expresses the adverbial argument, which, with *behave*, as we have just seen, prevents the projection of the reflexive DO. We find that the reflexive DO cannot cooccur with *mis-*:

(18)   *John misbehaved himself

This shows that, one way or another, *mis-* targets the adverbial position of the verb, thus blocking the syntactic projection of the reflexive.

2.3. The case of *misfire*

The verb *fire*, when used transitively, means "shoot". There is an intransitive use meaning "go off", for a gun, but not "ignite" for a motor-engine, or "have the intended result" for a joke, which are meanings that *misfire* has. Three questions arise with this verb. First, the meaning "fail to go off" of *misfire* is based on the intransitive fire, "go off" not the transitive use ("make (a gun) fire"), and this is a problem for our statement of the syntactic generalization given above (that *mis-* corresponds to a DO modifier), given that a direct object seems to be lacking. Second, the verb *fire* lacks two meanings ("ignite" and "have the intended result") that should yield those of *misfire*. And third, there is no obvious modifier of the (apparently missing) direct object in the base *fire*.

As for the transitivity of the verb *fire*, given that it displays the causative alternation, its syntax must be that of other verbs that enter the causative alternation, like *open*: *John opened the door*, *the door opened*. According to Levin and Rappaport (1995), and Pesetsky (1995), the intransitive version of the pair contains a hidden reflexive direct object, as evidenced in languages like French: *casser/se casser*. Thus, for our concern, *fire* is on a par with *behave*: it contains a Case-marked, unprojected, reflexive argument, and thus does not violate the requirement that the base verb be transitive.
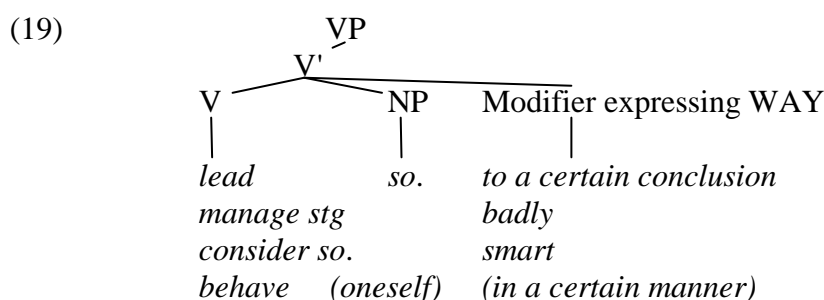
As for the meanings of *misfire* which are not found on *fire*, it is not uncommon for a morphological operation to be accompanied with a change in the meaning of the base word. For instance, the verb *ship*, which comes from the conversion of the noun, means "carry by means of conveyance", and not just "by ship". For the cases at hand, it could be that the

attachment of *mis-* allows the sense of the base to be extended to apply to any mechanism that functions with an expected result, and not just to guns.

Concerning the problem of the lack of a direct-object modifier, our logic will be that, if the working of *mis-* is to be the same for all verbs, then there must be a DO-modifier place in the argument structure of the verb *fire*. We will assume that a constant particle of the meaning of "off" is included as part of the meaning of *fire*, and that *mis-* corresponds to that particle, which, as Kayne (1984) has claimed, is a direct-object modifier in the general case of complex verbs like *look* (*sthg*) *up*.

3. An account

If the grammatical functions of an object-oriented adverb, a second complement, and a predicate of a small clause seem to be different grammatical functions, it is not impossible to see that they may in fact all be projected as object modifiers, and that they all name the notion WAY:

(19)

```
                    VP
              V'
       V          NP      Modifier expressing WAY
       |          |            |
      lead        so.     to a certain conclusion
      manage stg          badly
      consider so.        smart
      behave    (oneself)  (in a certain manner)
```

Considering the semantics of *mis-*, let us mention that *mis-* has a perfective meaning, it means that an expected endpoint has not been reached. The notion of expected endpoint is given by the lexical meaning of the base verb, it is not given by the context, and that notion is expressed syntactically by a direct-object modifier. Given that this notion cannot be given by the context, and must be given by the meaning of the verb, then it must be that *mis-* merely **targets** the relevant argument place in the lexical entry of the base verb:

(20) **Rule for *mis-*:**
The prefix saturates the position of a direct-object modifier in the base verb to which it is attached.

A word is needed here on the structure of small clauses, *consider + NP + modifier*. It is common to assign them a structure in which the complement of the verb is a projection of the predicate that modifies the direct object, in which case the verb has only one complement, the small clause. However, I will follow Williams (1983) and assign them – in fact, only the verbs which accept *mis-*, as we will see – a structure in which both the direct object and the modifiers are complements of the verb, and are interpreted as holding a predication relation with each other, as in Quirk et al.'s (1985) complex transitive structures. This allows the syntactic frame for *mis-* to be the same for all the cases.

Let us also turn again to the verb *read*. It was mentioned that *misread* has the metaphorical meaning of "interpret", and cannot be interpreted as "wrongly read", even if the direct object of litteral *read* may be modified, as in:

(21) He read the title as Price and Prejudice

I will take this to mean that the DO-modifier is listed in the lexical entry of the verb only when the verb means "interpret". This is suggested by the fact that when *read* is nominalized, it does not have its litteral meaning, but that of "interpret":

(22)   ??His reading of the title is erroneous
        His reading of my ideas was wrong
        His reading of the short story was too emphatic

This seems to be related to the fact that the nominal, which has the meaning of "the way he read" in the sense of "interpret" may not have this meaning when it has its litteral sense. I will thus assume that only the sense of "interpret" includes "way" in it meaning, and that this notion is syntactically borne by the DO modifier.

Now, if *mis-* can only target information that is already there, then it will be able to target the DO-modifier argument place when the verb has the metaphorical meaning, but not the verb with the litteral meaning, since in that case, the information is not listed and the DO-modifier corresponds to an adverbial.

In such examples, *read* is used as a small-clause taking verb. Considering this kind of verbs, it is interesting to note that the small-clause taking **verbs of opinion** which accept *mis-* can all be used monotransitively (without the object modifier), while those that do not accept *mis-* cannot occur without the modifier:

(23)   a.   They're judging/considering/representing/his ideas
        b.   They understand/conceive him/their plan
        c.   They're construing an answer

(24)   *They misbelieved/misfound/misthought/misfigured her

This indicates that the Case-marked object is a true argument of the verb, as we have postulated, and not the subject of a small clause.

But things are not that simple, a verb like *treat* takes an obligatory DO-modifier (*he is treating them* has a different meaning than *he's treating them like slaves*), and nevertheless accepts *mis-*, which means that the description illustrated in (23)-(24) holds only of verbs of opinion.

Also, verbs of perception and verbs of representation (*paint*, *carve*, etc), which can be used with or without a DO- modifier, may not take *mis-* (except *hear*), so it is not enough to take a DO-modifier to be allowed to take *mis-*:

(25)   a.   ?They saw his name with two l's.
        b.   They painted/carved/imagined him with glasses
        c.   *They missaw his name
        d.   *They mispainted/miscarved/misimagined his face.

We return to small-clause taking verbs in section 5.3.

4. An aspectual requirement

Not all verbs accept the prefixation of *mis-*. Judging from the meaning of the verbs in *mis-*, the contribution of *mis-* is that the event (denoted by *mis*V) reaches an endpoint which is not the expected one. Looking closely at the well-formed verbs, the base denotes an event that is delimited by the direct object and bounded by the direct object modifier (see Tenny 1987 for those notions and their crucial role in the syntactic projection of arguments). For example,

in *misjudge somebody*, we have a judging event delimited by *somebody* whose endpoint is the judgment reached: the event lasts as long as the person is under consideration, and it is over once the judgment is established.

We are now going to see that the syntactic configuration that we have extracted from the data is necessary to explain some impossible verbs but that this condition is not sufficient either and that a semantic restriction on the base verb is needed. As a first approximation, we state the following semantic requirement on the aspectual interpretation of the verb, which in fact correlates with the syntactic requirement on the complex transitive structure:

(26)   The base verb must denote a process with an expected endpoint.

As a matter of fact, with *mis*-verbs, it is the direct-object modifier which expresses the endpoint of the process.

5. The syntactic restrictions
5.1. Intransitive verbs
Certain verbs are compatible with the syntactic expression *the wrong way* or *wrongly* and may nevertheless not take *mis*-:

(27)   They/their ideas went the wrong way
(28)   They thought/(about the problem) the wrong way.
(29)   They concluded (about the problem) the wrong way.
(30)   They reasoned (about the problem) the wrong way

(31)   *misgo/*misthink*/*misconclude/*misreason

An intransitive verb like *conclude* seems to be partly compatible with the semantic requirements on *mis*-, since it refers to the endpoint of a reasoning. It may be possible to determine its incompatibility with *mis*- if it is not a process verb, but an achievement verb (see Vendler 1957). For instance, it does not take durative *for*:

(32)   *They concluded about the problem for two minutes

However, *fire* is an achievement verb, and *misfire* is well-formed. And verbs like *represent* are bounded and achievement verbs, they do not take *for*, and still accept *mis*-:

(33)   *They represented her for two hours

In such a case, it would come as a surprise that *represent* should be allowed to take *mis*- if the process must be durative. So, it seems that being a verb with an endpoint is enough to allow *mis*-, whether the process is instantaneous or durative.

As for the intransitive verbs *reason* and *think*, the other case seems to be illustrated, i.e. the case of a process verb, but without an endpoint. Here, one could actually have recourse to the semantic requirement on the endpoint of the process and eliminate *misreason* and *misthink* on that ground.

Nevertheless, we note that all truly intransitive verbs are excluded on syntactic grounds for not fitting the syntactic frame: they lack a direct object (see below the case of *go*, which is supposed to involve a direct object). Additionally, some, like *misreason* and *misthink* are also excluded for semantic reasons.

5.2. Metaphorical verbs of direction

Let us consider another case in which the syntactic condition seems to hold. If the verbs *lead* or *guide* accept *mis-*, it is only when they have a metaphorical meaning:

(34) a.   That idea/*The guide/*The train misled them
     b.   Such directives/*The taxi driver misguided them.

When a verb of physical direction is used metaphorically, the location becomes an argument of the verb, not an adverbial:

(35) a.   What did they arrive at? (answer: a certain conclusion, for ex.)
     b.   Where did they arrive (location)?

This may reflect a difference in the projection of the PP: as a V' modifier when an adverbial and a DO-modifier when an argument, i.e. in the metaphorical meaning, and hence the base verb may be assigned the same structure as that of double object verbs like *give* (see Larson 1988). This is also suggested by the fact that the locative argument may passivize only in the metaphorical meaning:

(36)   A good solution was arrived at
(37)   *Another station was arrived at

That would explain why only the metaphorical meaning is compatible with the affixation of *mis-*. General current work tends to explicate the relations between grammatical functions and semantic – and aspectual – roles, attempting to derive the former from the latter. In the case under consideration, there is an obvious relation between meaning and structure. What we may conclude is that, given the (metaphorical) meaning, the arguments are projected in a structure which is compatible with *mis-*.
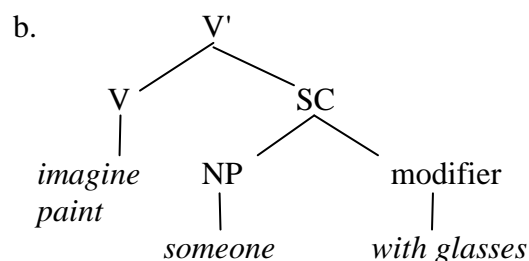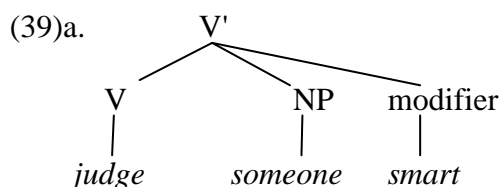
5.3. small-clauses

Only certain verbs that are traditionally analyzed as taking a small clause may be prefixed, and we will postulate a syntactic difference between them, due to the sense of the verb: if the verb is a verb of thought, it has two complements, the direct object and its modifier, and if it is a verb of (mental or pictorial) representation, then it takes a single complement (in the form of a small clause):

(38)a. misrepresent misread vs. *mispaint *misdescribe *misdepict *miscarve
     b. misjudge vs *misbelieve *misfind *misimagine
     c. misspell mistranslate vs. *misinterpret (with "interpret" the job of an interpreter) *miscopy *misreproduce

In all the well-formed cases, the base verbs mention the ascription of a property to an individual, they are verbs of thought. We will stress the difference between the ill- and well-formed cases as a characteristic of the relation between the direct object and the modifier, and state that, in the ill-formed cases, the modifier does not constitute a property ascribed to the referent of the direct object, but, rather, denotes a property of a mental – or pictorial – representation of that referent. This is syntactically expressed by a (simplified) double-complement structure for the well-formed cases, as required by *mis-*, and a small-clause structure for the others, which is not the right structure for *mis-*:

(39)a.
```
              V'
           /  |  \
          V   NP  modifier
          |   |      |
       judge someone smart
```
b.
```
                    V'
                  /    \
                 V      SC
                 |     /   \
            imagine  NP    modifier
             paint    |       |
                   someone  with glasses
```

Following Jackendoff (1983) and Fauconnier (1984), in b, the complement of verbs like *imagine* or *paint* is a mental – or pictorial – representation (of a referent associated with a property if the complement is a small clause, as in *imagine someone with glasses*), while the complement of a verb like *judge* is a referent in the world of the discourse (to which a property is ascribed, in complex transitive structures, such as *judge someone smart*).

5.5. Unaccusative verbs

In the generative tradition, verbs like *go*, *appear*, *arrive*, etc., coined unaccusative verbs, have been analyzed as verbs with a direct object that moves to the subject position, as in a passive structure. If that analysis is correct, then they are potential bases for *mis-*, since *mis-* requires verbs with direct objects. However, there are no well-formed unaccusative verbs with *mis-*, and we take this to be significant.

Taking for instance **misgo* or **misarrive*, the bases *go* and *arrive* enter the configuration required for *mis-*, granted that the base verb has the metaphorical meaning exemplified with *arrive* (otherwise the location expression is an adverbial and not an argument), that is to say, "arrive to a conclusion", "go to false directions". Other impossible verbs are **misappear* (i.e. "appear the wrong way to someone", **misstrike* (i.e. "strike someone in a way not conform to reality"). It is hard to determine whether the verbal bases *go*, *arrive*, *appear*, *strike*, lack the proper semantic characters, for instance *arrive* does involve an endpoint and is a verb of thought, quite productive for *mis-*. That is why I will provide a syntactic characterization of the impossibility of unaccusative verbs to take *mis-*:

(40)   The verbal base onto which *mis-* is affixed must be **transitive**, i.e. assign **Accusative Case**.

I assume that the difference between the reflexive object of verbs like *behave* (and *dress*, *shave* and others), whether it is projected in the syntax or not, and NP trace of unaccusative verbs is precisely that the verb is transitive with the reflexive and intransitive with unaccusatives:

(41)   a.
```
         V                              V'
         |                            /    \
      behave                         V      NP
      x, xself                       |       |
       Case                       arrive     t
```

So, below is the last version of the syntactic requirement on *mis-*:

(42)   *mis-* saturates the position of a modifier of a Case-marked complement of the verbal base to which it is attached.

6. A semantic requirement on the base verb

Certain pairs of verbs semantically close, which enter the same syntactic configuration, teach us that, in addition to the aspectual requirement, there must exist a semantic condition on the base verb. For example:

(43)   Apparently intransitive verbs
        misbehave vs. *misdress, misfire vs. *misignite

(44)   verbs with two objects
        misadvise vs. *misrecommend *missuggest *miscounsel *misexplain *misinstruct
        *misconvince

The case of *misbehave* vs *misdress* will be our starting point. The two base verbs are transitive, with a hidden reflexive, and they both have an endpoint expressed by a PP or an adverbial modifier:

(45)   a.   behave well, in a strange way, etc.
        b.   dress (oneself) well, in black, in a white shirt, etc.

They respect the syntactic configuration for *mis-*, they involve an endpoint, expressed by a DO modifier, and the base verb is transitive (with a hidden, Case-marked, reflexive as a direct object). The reason for the impossibility of *mis-* on *dress* is thus semantic. The verb *behave* is a verb of behaviour, it belongs to a semantic field in which rules are followed and onto which a moral code is imposed. Moreover, someone's behavior is inherent to the person and necessary: one cannot be without behaving. As for *dress*, it is a verb expressing a certain behavior, however, the rules of dressing are not inherent to a person. We take the following condition as essential to the prefixation of *mis-*:

(46)   The base verb must express the following of rules internal to one of the arguments of
        the verb.

The rules relevant to the notion of "error" implied by *mis-* pertain to:
1) **language (speaking, hearing and writing)**:
        mispronounce
        misspell, misword, misaddress
        mishear
        mistranslate

2) **thought and understanding**:
        misunderstand misinterpret
        mislead

3) **computation**
        misconstrue miscalculate miscompute

4) **geometrical ordering**
        misorganise misplace misfile
   and its metaphorical uses:
        mismanage mishandle

5) **social and moral code**, based on the notion of the self and others (see Jackendoff 1993)
misbehave misconduct (oneself) misuse ("use sthg for the wrong purpose") misappropriate

6) **rules of mechanics,** for an inanimate organism
misfire

Interestingly, verbs which suggest the use of rules which cannot be said to be inherent to a mechanism, such as cooking (the rules being recipes), driving (driving code), music (score), or a game, like checkers, do not allow *mis-*:

(47)   *miscook (a pie)
        *misback (a car)
        *misinterpret (a sonata)
        *misplay (a game or a move)

Going back to the series exemplified in (44), i.e. *misadvise* vs all the other verbs with a similar meaning: **misrecommend*, **missuggest*, etc, I will assume that, after eliminating base verbs like *suggest* for syntactic reasons – for not being ditransitive (**suggest sb sth*) – the fundamental difference between them relates to the semantic requirement given above. A piece of advice is a directive, it guides people from beginning to end in their course of action, and that seems to be enough to constitute a kind of internalized rule for the referent of the direct object. On the other hand, recommendations or orders do not tell people **how** to do things, but **what** to do, they do not constitute rules.

7. Minimal contrasts

This section considers verbs which seem semantically close and for which there is nevertheless a difference in the attachment of *mis-*:

(48)   mispronounce vs. *misarticulate *missay, *misutter

Only the verb *pronounce* implies the way the direct object is pronounced:

(49)   He pronounced house "houz"
        *He articulated/said/uttered house "houz"

This does not mean that the ill-formed verbs do not accept a modification by an adverbial, but then the adverbial bears on the articulation and not on what the direct object sounds like, while this in turn may imply something about the audible form of the utterance:

(50)   He articulated the word with a German accent

This means that the ill-formed verbs do not enter the syntactic configuration needed: they do not take a DO-modifier. In turn, this correlates with the lack of an endpoint of the process, and hence *mis-* cannot mean that "the expected endpoint has not been reached".

The case of *mishear* is interesting: it must involve language:

(51)   *John misheard the footsteps

That is also why verbs of perception other than hearing are not compatible with *mis-*: hearing is the sense through which language is perceived and acquired. The following examples are ill-formed, even in the context of perception of language signs through gestures, or the braille alphabet, which means that the prototypical way of learning language is through hearing:

(52)   a.   *John missaw the title
        b.   *John missensed the letter (in braille)

8. The functioning of *mis-*

As was mentioned earlier, we do not wish to allow affixes to contribute a notional meaning of their own. If this is so, then the origin of the meaning "the wrong way" must be looked for. Starting with the meaning of the definite article, it corresponds to a presupposition in the meaning of the base, which yields the notion of expectation, seen above when we characterized the working of *mis-* on the base: the notion of expected endpoint. Note that the notion of expected crossing point exists in the perceptive field, as explained in Vandeloise (1986), and that of expected endpoint can be seen as deriving from a similiar mental representation.

As for the meaning "wrong", let us consider the meaning of the adjective *wrong*:

(53)   a.   John was wrong not to let them know of his intention.
        b.   Marry married the wrong man, he is not fit for her.
        c.   Thelma came the wrong day, we were not supposed to meet on Tuesday.

The meaning carried by *mis-* is the one exemplified in c, in which the proposition in which the adjective occurs is presupposed, and in which one thing goes wrong, i.e. as contrary to expectation. In such a case, *wrong* does not qualify the noun it modifies syntactically, rather, it involves a confrontation between the identity of the referent of that noun and the identity of the expected referent. Given this, we can say that *wrong*, when working on a presupposed identity, does not have a lexical meaning but that of an operator. Now, the affix *mis-* has the meaning of the adjective when the adjective works like an operator, this entails that the affix does not have a lexical meaning.

Let us now consider the meaning "way". Like PATHS, THINGS and other primitive semantic notions, I assume that the notion WAY is primitive. In fact, we may presume that the noun *way* names a semantic primitive from the fact that it may work like an adverbial without the need of a preposition : *do something a certain way*, a possibility allowed to some nouns only, which all seem to name basic notions, like *time* and *place*.

Lastly, we explain that *mis-* must target a position in the argument structure of the base to which it is attached precisely because an affix may not carry a meaning of its own: it may thus only work on information which is already encoded in the meaning of the base verb, such as argument structure.

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