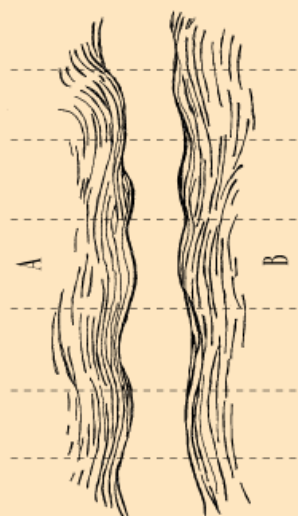


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**CERCLE
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Arbitrariness of the Sign, Arbitrariness of the Word, Arbitrariness of the Morpheme

François Nemo

Abstract. This paper aims to demonstrate that the semantic principles defended by Saussure, namely the principle of linearity of the signifiant and the principle of arbitrariness of the sign, cannot be applied to a single notion of sign. It discusses first the assimilation of the notion of sign with the notion of word, and shows all the shortcomings associated with it. It then discusses the emergence of a characterization of morphemes as minimal signs and as grammar-free units encoding a post-Benvenistian signification. It finally discusses the polymorphic nature of morphemes, showing that the non-linearity of the morphemic signifiant and other forms of polymorphy imply the coexistence of arbitrary morphemes and non-arbitrary words.

o. Semantic principles in the CLG

With so many issues to be dealt with, spelling out my conclusion might bring some clarity to the developments ahead: even though in the *Cours de linguistique générale* (CLG from now on), Saussure is introducing for the description of signs two principles, which he says are equally important, namely the *arbitrariness of the sign* and the linearity of the *signifiant* (and hence, inseparably, of the *sign*), it appears however, and can be proven, that:

- there are semantic units whose *signifier/signifiant* is linear, but they are neither arbitrary nor minimal signs;
- there are semantic units which are arbitrary but they have a non-linear and flexible *signifiant*;

Given that it is not possible to use a single label, *sign*, to name those two types, it is thus necessary to distinguish between the non-linear grammar-free semantic units which are the semantic bricks of a language (and its minimal signs), that I shall call *morphemes* and note σ /morpheme/, and the linear and constructionalized semantic units which are the grammatical bricks of a language, that I shall call *lexemes* and note LM [lexeme]_{Cat}.

1 Arbitrariness of the sign

My starting point will be that any discussion of the arbitrariness of the sign is possible only if three issues are considered, namely the frequent and problematic assimilation of the notion of *sign* with the notion of *word*, the subsequent fact that the non-arbitrariness of words does not entail the non-arbitrariness of signs (i.e. of morphemes), and the non-linearity and the formal flexibility of *morphemes*.

This will allow me to show that the fundamental and ultimate issues under discussion are on the one hand mistaking word meaning with morphemic meaning (typically designation and signification), on the other hand wrongly assuming that the semantic bricks of a language are also and necessarily its grammatical bricks, and finally wrongly assuming that the *signifiant* of minimal signs is a linear and ordered sequence of phonemes.

I shall notably show that even if the answer to the question “Can two or more words with an arbitrary *signifiant/signifié* relationship have similar or identical *signifiants* and have similar *signifiés*?” is “no”, and even if similarity of both meaning and form between words is the rule in the lexicon rather than an exception, this does not entail that signs are not arbitrary if words are not minimal signs.

1.1 Arbitrariness of the word?

In the history of the discussion of the saussurean notion of *arbitrariness of the sign*, the notion of *sign* has often and long been assimilated with the notion of *word*.

Recently however, both in syntax (Borer, 2003) and linguistic semantics (Nemo, 2000, 2001, 2002a, 2002b, 2003, 2004, 2005, 2007), it has become associated with a revisited notion of *morpheme*, defined as an *exo-skeletal* and thus grammar-free pre-categorial semantic unit, which has also proved in many languages to be highly *polymorphic*.

1.1.1. Duality of the *signifié*

In semantics, the first step of this evolution was the distinction by E. Benveniste (1954, 49-50) between *designation* (typically associated with words) and *signification*, and the second step was the resulting development of a theory of signification, which has led to the discovery of its instructional nature (notably by Ducrot, e.g. Ducrot & alii, 1980) and then to the theorizing of the indicational-indexical nature of semantic instructions (Cadiot, 1994; Nemo, 2001).

Regarding the first point, Benveniste was indeed the first to state both that the *signifié* is not the *designé* and to oppose this claim directly to Saussure’s description of the sign, in which he points what appear to be a contradiction.

Reminding, in a paper entitled “*Nature du signe linguistique*”, that:

Saussure prend le signe linguistique comme constitué par un signifiant et un signifié. Or – ceci est essentiel – il entend par « signifié » le concept. Il déclare en propres termes (p. 100) que « le signe linguistique unit non une chose et un nom, mais un concept et une image acoustique ». Mais il assure, aussitôt après, que la nature du signe est arbitraire parce que il n’a avec le signifié « aucune attache naturelle dans la réalité. (Benveniste, [1939] 1966, 50).¹

he criticizes the clandestine reintroduction of an object-based definition² of the *signifié*:

Il est clair que le raisonnement est faussé par le recours inconscient et subreptice à un troisième terme, qui n’était pas compris dans la définition initiale. Ce troisième terme est la chose même, la réalité. Saussure a beau dire que l’idée de « sœur » n’est pas liée au signifiant s-ø-r ; il n’en pense pas moins à la réalité de la notion. Quand il parle de la différence entre b-ø-f et o-k-s, il se réfère malgré lui au fait que ces deux termes s’appliquent à la même réalité. (Benveniste, [1939] 1966, 50).

This, inevitably, leads to identifying the *signifié* with the named *object*:

Voilà donc la chose, expressément exclue d’abord de la définition du signe, qui s’y introduit par un détour et qui y installe en permanence la contradiction. ³ (Benveniste, [1939] 1966, 50)

The considerable and multiform legacy of Benveniste’s rebuttal of the assimilation of *signifié* with what is *désigné* or *dénommé* is ultimately grounded on the empirical rejection of the idea that what has to be accounted for would be a list of terms being in a one to one relationship with objects.

The empirical reality in this respect, both in diachrony and synchrony, is indeed that each term (and form) is routinely associated with a diversity of objects, so that linguists are

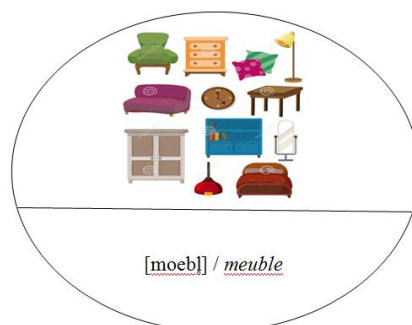
¹ Saussure apprehends the linguistic sign as the association of a signifiant and a signifié. He however – this is essential – apprehend the « signifié » as the concept. He declares in its own words (p. 100) that the « linguistic sign does not unite a thing and a name chose but a concept and an acoustic image » but assures, right away, that the nature of the sign is arbitrary because it has with the signifié « no natural link in the reality ». (Benveniste, [1939] 1966, 50). My translation.

² It is clear that the reasoning is flawed by the unconscious and surreptitious use of a third term, which was not present in the initial definition. This third term is the thing itself, the reality. No matter if Saussure claims that the idea of sister is not linked with to the signifiant s-ø-r, he nevertheless thinks about the reality of the notion. When he speaks of the difference between b-ø-f and o-k-s, he unwittingly refers to the fact that the two terms apply to the same reality. My translation.

³ Here comes the thing, explicitly excluded initially from the definition of the sign, reintroduced in it by a detour alongside with a permanent contradiction. My translation.

facing a choice between adopting homonymic degrouping to maintain a one sign/one concept relationship or adopting a distinction between *signifié/signification* and *designation/concept*.

If we consider for example the French word *meuble* and a Saussurean characterization of the so-called sign *meuble* as the association of;



The difference between the concept associated with the designated/named object *meuble* (a piece of furniture) and the signification of the sign */meuble/* is quite obvious, given that the signification of */meuble/* is that something is mobile (and nothing else) as is apparent both in its adjectival use [*meuble*]_{Adj} which translates as *movable* and in the use of the collective noun *meublier* to name furniture as the whole and in the antonymic *immeuble* (building).

1.1.2. Names as non-minimal signs

Confronted with facts such as the fact for the noun [*meuble*]_{Noun} to have become the name of one of the many objects which move, a reality which is unpredictable out of language use (*énonciation*), the linguist cannot but adopt a dualistic view of word meaning, in which the denominative value(s) of a noun is (are) not the *signifié* (i.e. the signification) of the morpheme it contains.

This Benvenistian reality translates formally into a representation of the noun *meuble* as associated morphemically with the σ signification of mobility and as a naming noun to the designation of a piece of furniture:

piece of furniture [σ /*meuble*]_{Noun}

and implies to distinguish carefully the *signifié* (so to say) of lexicalized units [u], which includes their denominative value, and the actual *signifié* of the morpheme */meuble/* itself, in other words its signification sigma.

This also implies acknowledging the fact that the grammaticalized and contextualized units [u] simply are not minimal signs but secondary semantic constructs⁴ associated with a non-atomic linguistic sequence.

A major observation in this respect is indeed that confusing the question « *What is “un meuble” ?* » and the question « *What does meuble mean?* » is not only a semantic mistake (cf. Cadiot & Nemo, 1997), but also that the answer to the question « *What is un meuble ?* » is in fact not the meaning of « *meuble* » but the meaning of « *un meuble* ». This implies that all denominative meanings of nouns are in fact phrasal meanings and that this reality has been overlooked because of the lexicographical habit of ellipsing determinants in the description of nouns⁵

The denominative meaning is the phrasal meaning of « a N » and not the meaning of the minimal sign S used as a, and hence:

⁴ The context-dependant dimension of this construct is notably apparent in the use-based contextual determination of what moves (but also how and when the movement takes place, etc.) allowing the adjective [*meuble*]_{Ad} to be associated with a context in which when pressured, a material can move and the noun [*meuble*]_{Noun} to be associated with belongings that can easily be moved. When used, morphemes are associated with specific interpretation of the sigma indication.

⁵ Describing the (apparently atomic) entry *meuble* as *piece of furniture* for instance is in fact a statement that “*un meuble*” is “*a piece of furniture*”.



is what is named by the sequence « *un meuble* » and not the meaning of /*meuble*/ as a morpheme. Words are no minimal signs.

1.1.3. The sign=word hypothesis and its theoretical cost

Unaware of or rejecting Benveniste criticism of the identification of the *signifié* with the denominative designation, explicit tenants of an assimilation of signs with words, and *signifié* with *designation*, such as Aronoff (1976), have used Saussure's description of signs to defend the idea that morphemes had no meaning because they had different meanings, and to promote words as the semantic bricks of languages⁶.

The paradox with that position and use of Saussure is that contrary to Saussure's criticism of the idea that a language would be a mere *list* of names for things, it has precisely led to the idea that the entire lexicon was a *list* of *listemes*, defined either as atomic words which are not generated and hence not predictable (i.e. arbitrary), or as complex words formed of more than one sign, but whose semantic is unpredictable.

The price to pay⁷ for an assimilation of the notion of *sign* with the notion of *word* is indeed extraordinary, because such listemes, and specifically complex ones, are by far forming the most important part of the lexicon. This reality has in consequence led the promoters of words over morphemes to finally issue statements such as: « *The lexicon is like a prison – it contains only the lawless, and the only thing that its inmates have in common is lawlessness* ». (Di Scullio et Williams, 1987,3).

Examples of such outlaws⁸ are among many others:

- English *rotate* whose root/base is not an existing word and hence cannot be predicted by word-formation rules whose input is forcefully a word;
- French *rotation*, *dérober* (to rob), *dévaliser*, (to rob) whose roots/bases could be matched with existing words, namely *roter* (to burp), *robe* (a dress) and *valise* (suitcase) if the meaning was not irrelevant;
- French *loquet* (a latch) which faces the same problem;
- French/English *occlusion*, *abrasion* whose root/base is not a word⁹;
- French/English *collision*, *collusion*, *collect(e)*, etc. whose match with existing words would imply semantic drift;
- French *gradin* (tier) which is not predictable from noun *grade* despite a semantic air de famille;
- French *minable* (shabby) whose root/base has only infralexical uses (e.g. *minimum*) and hence is not a word;
- French/English *supplement/supplement* and *capable* whose base is also problematic;
- French English *suspect*, *suspicion* whose base is not a word;
- French *souçon* (suspicion) whose base is not a word;
- French/English *susceptible* (suspicion) whose base is not a word;
- French *rebutter* (to repel), *renâcler* (to snort), *regimber*, *refuser* (refuse), *rétif à* (restive), *réticent à* (reluctant), *rechigner* (to balk), *répugner* (to repel, to disgust) etc. whose bases

⁶ Aronoff appears to have overlooked both the fact that declaring morphemes meaningless because they have different meanings in their different uses is self-contradictory and that if such criteria were relevant they would entail the same conclusion as for words.

⁷ The theoretical cost of an hypothesis or a model as defined by Ducrot (1983, 180) is the selection of what has to be accounted for by the hypotheses used to account for it, as illustrated here by Di Scullio and Williams' notion of listeme.

⁸ All of which as we shall see later can in fact be accounted with a morpheme-based model with a capacity to predict polymorphy.

⁹ Neither the allomorph of a word.

are all either inexistent or semantically problematic despite the stable semantic presence of the prefix *re-* (see Nemo, 2014).

To produce all these listemes and declare them unpredictable, a simple recipe is to take a sign used in various grammatical positions and many different contexts, to ignore that it has various forms, to choose on intuitive ground one of its use and declare that its local constructional /contextual interpretation is the *core meaning of the sign*, to call *semantic drift* the fact that the other uses of the sign do not satisfy these local properties and finally to call these uses *listemes* and declare that “*there neither can nor should be a theory directly about it* » (Di Scullio et Williams, 1987,4)

Listemes, to conclude, can thus be considered as the exact theoretical cost for assuming that words are the minimal signs of languages. In reality, with words not being minimal signs, and their meaning not being the meaning of minimal signs, listemes appear to be an open window into the study of minimal signs, as we shall see later on.

2. Signs as pre-categorial units?

As far as semantics and word-class typology are concerned, another issue remains to be dealt with concerning minimal signs, i.e. units encoding signification sigma, which is the question to know if they are pre-categorial units or not?

With observations pointing both to polycategoriality or transcategoriality on the one hand and the existence of non-categorial lexicons on the other hand, this issue is arguably the most important one for any definition of the nature of signs, and has in consequence been a recurring one in debates about semantic units and the syntax/semantic interface.

Benveniste (1966[1954], 301), starting with the observation that « *the difficulty of reconstruction becomes higher when forms are part of distinct and grammatically conflicting classes* », wonders if it is possible to consider « *in a unique semantic family forms among which some are particles and others are verbal and nominal forms, with no shared syntactic use?* » before providing a positive answer to this question.

This implied postulating (de facto) the non-categoriality of signs and the impossibility to identify sign signification and word signification, thus confirming his other distinction between two types of *signifié* (*designation* vs *signification*), with signification hence is associated with pre-grammatical units and lexicalized senses with words

The same conclusion also emerged in comparative and typological studies of word-class among languages with the discussion on the necessity to distinguish languages with non-categorial lexicons¹⁰, whose basic semantic units are thus inevitably pre-grammatical units; and categorial lexicons, whose basic semantic units would thus be grammatically-defined units.

Founding remarks such as:

Thus the same unchanged form is at the same time a Conjunction, an Adjective, a Pronoun, an Adverb, a Verb and a Noun, or, to speak more precisely, it may become a Conjunction, an Adjective, etc., etc.; but by itself alone it is none of them. It is simply a vague elastic word, capable of signifying, in a vague manner, several distinct concepts, i.e. of assuming a variety of functions.” Hoffmann (1903: xxi)

are hence mirrored much later by a distinction between lexically rigid vs flexible languages;

Typology of word classes : rigid vs flexible languages

LC1	V			
LC2	V	N		
LC3	V	N	A	
LC4	V	N	A	D
LC5	V	N	A/D	
LC6	V	N/A/D		
LC7	V/N/A/D			

Hengeveld, 1992, 69-71

¹⁰ This implies that such languages have, so to say, two semantic lexicons, one formed of minimal (pre-grammatical) signs and the other formed of words.

and to criticisms such as:

The most fundamental problem is that Hengeveld ignores what happens to a lexical's root meaning when used in more than one function [...] this is particularly disturbing for a theory couched essentially in semantic-pragmatic concepts [...] For example, [...] the lexical item *hatun* denotes a property ('bigness') in its modifying function [...] but denotes an object possessing that property ('a big one') in its term or referring function [...]. It is a big semantic difference. »; Croft (2000, 71-72)

Despite the apparently strong opposition between the two positions, it can be shown that anyone arguing, as Croft does here, that a lexical meaning undergoes a semantic transformation when used in different grammatical functions, simultaneously admits that there is indeed a pre-categorial "lexical meaning" and that there are post-categorial lexical meanings, whose existence must not be denied. Thus confirming both the existence of two lexicons and two types of signs, and the necessity to analyze this reality as the presence of grammar-free semantic units with their own meaning and grammar-bound semantic units with a distinct but related meaning. In other words, this implies exactly¹¹ what was formalized earlier as the semantic structure $\text{Lexical meaning}[\sigma/\text{morpheme}]/\text{Cat.}$

Ultimately, the crucial point at stake is to know if signs as the semantic bricks of a language are its grammatical bricks, and vice versa, as has been routinely assumed since Baudouin de Courtenay, or if the semantic bricks of a language are pre-grammatical (exoskeletal) units, whose insertion in grammatical/skeletal positions produces grammaticalized units with lexicalized meanings.

Such an approach has found its advocates in syntax theory, such as Borer (2003, 33):

« Consider the following execution of an exo-skeletal research program. Within such an approach there is a reservoir of sound-meaning pairs, where by meaning we refer to the appropriate notion of a concept, and where by sound we mean an appropriately abstract phonological representation, for a felicitous context. ...»

« ... following tradition, I will refer to that reservoir as the encyclopedia, and to items within it as encyclopedic items (EIs). Crucially, an EI is not associated with any formal grammatical information concerning category, argument structure, or word-formation. It is a category-less, argument-less concept, although its meaning might give rise to certain expectations for a felicitous context.

But it is in the synchronic semantics of polycategoriality that this scenario has been proved to be an efficient one.

Despite Benveniste's approach being initially a diachronic one, it has induced the subsequent development of theories of signification, from Ducrot (1987) to Robert (2003) and Nemo (2003) which have proved both the synchronic existence of a signification/sense distinction and the non-categoriality of signs (and signification) by tackling the issue of polycategorial or transcategorial distribution at sign-token level, thus accounting for the whole process leading from (grammar-free) semantic instructions to categorial/contextual lexicalized meanings.

It has been shown (and proved) for instance that the adjective [*même*] (i.e. English *same*) and the adverb [*même*] (i.e. English *even*) are two uses of a single morpheme /*même*/, which encodes a single indication and semantic constraint.

The same has been shown for the polycategorial distribution of the morpheme /*even*/, which includes verbal and adjectival uses (Nemo, 2007).

The same has been shown for the polycategorial distribution of the English morpheme /*but*/, with all its lexicalized interpretations (*almost*, *only*, *without*, *except*, "*mais*") originating in a single morphemic indication (Nemo, 2002a, 2004).

The same has been shown to hold for the suffix *-able* and the adjectival component of "*to be able to*".

The same has been shown to hold for so-called free and bound uses of the French morpheme /*table*/ namely the noun [*table*], the verbs [*table*] and [*rétablir*], etc.

The same has been shown recently (see Nemo & Horchani, 2018, to appear) for all the uses of French morpheme /*tant*/ namely [*tant*], [*pourtant*], [*autant*], [*pour autant*], [*tant que*], [*si tant est que*], [*tant et si bien que*], [*tant pis*], etc.

Empirical studies of the semantic relationship between a morpheme and the various lexemes in which it is inserted are leading to the following conclusions :

¹¹ But for the use of the label *lexical meaning* for morphemic signification, which inevitably induces a confusion between lexical meaning as word-meaning and lexical meaning as a non-word semantic unit.

- the morpheme/lexeme relationship is a relation between a *presupposed* morphemic indication and various outcomes associated with this presupposition;
 - this *presupposition* can be isolated following an explicit methodology (Horchani, 2017).
- This implies that the claim according to which *morphemes have no meaning because they have different meanings* (Aronoff, 1976), apart from being self contradicting, is falsified:
- morphemes have a single meaning/signifié;
 - this meaning is an encoded indication;
 - this indication is a semantic constraint which must be satisfied one way or another;
 - the specific way a morpheme is satisfied in each use is the *lexematic signifié*.

3. Non-linear and polymorphic morphemes

The last issue in the study of signification-encoding signs is to know what their signifiant is. Saussure has not only addressed the issue but highlighted its crucial character:

« Le signifiant, étant de nature auditive, se déroule dans le temps seul et a les caractères qu'il emprunte au temps : a) il représente une étendue, et b) cette étendue est mesurable dans une seule dimension : c'est une ligne¹². Ce principe est évident, mais il semble que l'on ait toujours négligé de l'énoncer, sans doute parce qu'on l'a trouvé trop simple : cependant il est fondamental et les conséquences en sont incalculables ; son importance est égale à celle de la première loi. Tout le mécanisme de la langue en dépend.¹³ » (Saussure, CLG, 103).

This principle however, which makes explicit what has indeed always been taken for granted by linguists, appears to be false when morphemes, and not lexemes, are considered. The idea that the *signifiant* (as a sound form) is a linear chain (CLG, 104), despite generally true for lexemes is not true of morphemes.

The first observation to be made is indeed that the elements of the chain can freely permute, with:

[/loqu/et] in French, pronounced [/lɔk/ε]
and lock in English

being linear alternants of:

[/clo/s] in French pronounced [klo],
[/occl/usion] pronounced [/ɔkl/yzjɔ̃]

and the three forms being associated with a single signification σ but also with partly distinct lexical meanings.

Such permutative forms are legion in the lexicon, as illustrated by the following examples:

<i>forme</i> (form)	<i>morph-</i>	<i>a-morphe</i>
<i>plu-part</i> (most)	<i>quint-uple</i> (five times)	<i>pul-uller</i> (pullulate)
<i>dur</i> (tough)	<i>rude</i> (tough)	<i>ardu</i> (difficult, arduous)
<i>rot-ation</i>	<i>tor-sion</i>	
<i>star</i>	<i>astr-ology</i>	
<i>rab-ot</i> (plane ¹⁴)	<i>abr-asion</i>	
<i>cro(c)</i> (fangs)	<i>orque</i> (killer whale)	<i>roqu-et</i> (aggressive small dog)
<i>donc</i> (therefore)	<i>cond-uire</i> (to lead to)	<i>cond-ition</i>

But polymorphy is not restricted to alternative linearizations, and concerns the neutralization of phonological features, as illustrated by:

[+/- voice]	
<i>coul-er</i> (to flow)	<i>dé-goul-iner</i> (to drip)
<i>rab-ot</i> (plane)	<i>râpe</i> (rasp)
<i>compl-et</i> (complete)	<i>comble</i> (full, packed)
[+/- nasal]	

¹² My emphasis.

¹³ « The signifiant, due to its auditory nature, is taking place in time and inherits its characters from time : a) *it represents a span (étendue)*, and b) *this span (étendue) can be measured in one dimension* : its a lign. This principle is evident, but it seems that making it explicit was overlooked, possibly because it was found to be too simple: it is however a fundamental one and its consequences are incalculable ; its importance is equal to the importance of the first law. The whole mechanism of language depends on it.

¹⁴ The carpenter's tool.

râpe (rasp) *ramp-er* (to crawl or creep)
grade *grand-ir* (grow)
tap-er (to hit) *auto-tamponeuse* (bumper car)

and also the possibility to add a meaningless phoneme, called expansion, as in:

tour *tourn-er* (turn) *étroit* (narrow) *détroit* (straight¹⁵)
-able *habile* (skilled, able)
astr-ology *aster-oid*

or to substitute vowels as in:

même (same, even) *mime* (mime) *mim-er* (mimic)
tour-er (turn) *torn-ade* (tornado)
stop *con-stip-ation* *coul-er* (to flow) *colique*

(colic)

Moreover, these different forms of flexibility of the signifiant of morphemes can be combined, as in:

couler (to flow) *dé-goul-iner* (to drip) *glou-glou* (onomatopoeia: drinking a liquid)
blanc (white) *alb-ion* *albumine*
stop *obst-acle*
ramper *rept-ation* *rept-ile* *herpet-ologue*
proximity *promiscuity*

carapace (shell) *caparaçonné* (caparizoned) *scarabée* (scarab) *crabe* (crab)

class-ement (ranking) *escal-ier* (staircase) *escal-ade* (escalation, climb)

all of which allow the creation of families of lexemes sharing a polymorphic morpheme and inducing an undisputable form/meaning relationship at word level, as in:

é-criv-ain (writer) [ekrivɛ̃].
scribe [skʁib]
script-ural [skʁiptyʁal]
grib-ouiller (to scribble) [gʁibuʒe]
scribouillard [skʁibuʒa:ʀ]
griffonner (to scribble) [gʁifɔ̃ne]
graffiti [gʁafiti]
graver (to engrave) [gʁave]

and makes it possible to account for many listemes, especially by accounting for bound bases which do not exist as free morphemes (i.e. as words), as in *rot-ation* (tordre, ronde), *occlusion* (lock, close) *suppl-ement*(plus), *ear/hear*, *pleutre/poltron* (both coward, cowardly).

Polymorphy can also include multi-word expressions and phrasal meanings as in the relation between polymorphs *taper* (to hit, to type), *bat-tre* (to beat) *tab-asser* (to beat sb. up) and the lexically opaque expression and idiom *passer à tabac* (litt pass to tobacco, actual meaning to beat up).

Ultimately, the possibility of vowel substitution can lead to the sound form becoming bilinear with separate consonantal and vocalic layers, and hence to a permutable version of the kind of consonantal roots which are observed in Semitic languages; as illustrated by:

- *grad-uel* (gradual) *degré* (degree) ;
- *frôler* (to brush), *effleurer* (to brush), *flirter* (to flirt, to approach closely), *érafler* (to scratch);
- *suspect*, *soupçon* (suspicion), *suscept-ible*, *suspicion*, *mettre la puce à l'oreille* (e.g setting off alarm bells) ;

thus creating closely related words with nevertheless slightly/partly distinctive meanings.

4. Polymorphy and distinctiveness in the lexicon

The flexibility of the *signifiant* and the existence of families of lexemes sharing a polymorphous morpheme is not a local nor limited phenomenon. It is not only provable for the whole lexicon but appears to be the very heart of the linguistic system as far as meaning is concerned. This includes the fact that the relationship between polymorphy,

¹⁵ Straight of Bering for instance.

morphemes and lexemes is backing many of Saussure's claims about value and semantic distinctiveness and the inexistence of a distinction between *sens figuré/ sens littéral*.

This has huge consequences for the understanding of semantic distinctiveness, which was of course the key issue in Saussure's theory of sign and representation of language. It means notably that the lexicon is not a list of autonomous atomic semantic units associated with autonomous concepts but has an addressing system very similar to usual postal directions, with morphemes behaving as semantic streets, providing a semantic background used as an ingredient by all lexemes, and lexemes behaving as houses in the street. Exactly as an house in a town can be found with a direction which associate numbers and street name (for instance *18 rue de la confederation*), and has hence two complementary levels of distinctiveness, the form of lexemes appear to combine the possibility to ignore linear order and some phonological features to access to the sigma information encoded by a non-linear and partly subphonemic/archiphonemic morpheme and to use linearity and phonemic distinctivity to store lexeme specific meanings. Such a conjecture is widely backed by the way dictionaries are routinely describing and paraphrasing a *18 rue de la Confédération* lexeme by using the next door lexeme (*16 rue de la Confédération*), as for instance when *to close* is used to describe *lock*, French *dur* is used to describe *rude* and *degré* is used to describe *gradual*, etc. This is so true that it is actually possible to fully automate the research of such relationships and to map them for the whole lexicon.

5. Conclusion

The fact for minimal signs to have a (bilinear) permutable flexible and often subphonemic (e.g. archiphonemic) *signifiant* and a grammar-free and object-free *signifié* may seem to directly contradict Saussure definition of *signs*.

The reality is different, for four reasons. The first is that the signifiant/signifié relationship at the level of morphemes does remain arbitrary (until proved otherwise). The second is that polymorphy is a very Saussurean system in which similarity of form is used to share semantic presuppositions meanwhile the differences between these forms are extensively used to associate this presupposition with a variety of semantic complements, allowing semantic distinctivity to be combined and grounded on semantic presupposition. The third is that Saussure's criticism of the vision of the lexicon as a list of name/objects pairs must indeed be replaced by a network of similar forms and similar meanings. The last is that Saussure's late interest for anagrams should probably be reconsidered by taking into account the omnipresence of permutation and the fact that permuted forms are clearly no obstacle to semantic interpretability.

What however came as a surprise for everyone, and would have come as a surprise to Saussure, is the discovery in Pierre Cadiot's work on polysemy (1994) of the indexicality of all minimal signs¹⁶, and hence of the fact that minimal signs are index, not symbols nor icons.

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¹⁶ Later work (e.g. Nemo, 2001) has proved him right, the only difference between "pure indexicals" and other signs being that the interpretation of pure deictics cannot conventionalize, contrary to normal signs whose indexical interpretation routinely conventionalizes, for instance when they become names. See Cadiot & Visetti (2001).

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