

Data-Driven vs. Dictionary-based description of French nominalizations in -age and in -ment: the paradigmatic evidence

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Many studies addressed the question of French nominalizations in *-age* and in *-ment* and tried to find a distinction between these two suffixations. Several authors claim that suffixation in *-age* attaches to transitive verbs while suffixation in *-ment* attaches to intransitive, reflexive or passivized verbs (Dubois, 1962, Lüdtke, 1978): consequently, nouns in *-age* would denote iterative events, while nouns in *-ment* would denote resultant states, with durative or terminative value. Others as Kelling (among others: 2001 and 2003) use Dowty's notion of Proto-Roles approach combined with LFG's mapping theory (Bresnan & Zaenen, 1990) and claim that the number of proto-agent entailments determinates the choice of the more adequate suffixation: suffixation in *-age* would be chosen if all proto-agent criteria are fulfilled while suffixation in *-ment* would be preferred otherwise. Martin (2010, among others) connects the choice of one or the other suffixation with the "length of the eventive chain" denoted by the nominalization: she assumes that verb bases denoting causative predicates (and more generally, semantically complex events) are preferably selected by *-age*, whereas inaccusative verbs (i.e. with a simpler semantic content), derive into *-ment* nouns. Uth (2010) explores diachrony in order to offer explanation of the synchronic difference between these two suffixations.

All these studies share a common assumption: French nominalizations in *-age* and in *-ment* should be distinguished. This presupposition is based on another one: each exponent must coincide with a unique Lexeme Formation Rule (LFR), or, more precisely, an exponent being a phonological manifestation of a given morphosyntactic property-set (Coates, 2000; Trommer, 2012), if there are two different exponents, the LFRs they belong to must be different.

Moreover, excepted Uth (2010), none of these studies is based on real data

In the vein of Dal & al. (2004) and Fradin (2016), the aim of the present communication is to confront the robustness of previous results through the examination of noun pairs derived from the same verb, where one member is attested in dictionaries of contemporary French, and the other one is only present on the Internet.

Through an automatic acquisition procedure, Dal & al. (2004) gathered from the Web a large amount of *-ment* and *-age* ending nouns, and ranked them according to whether they are stored in dictionaries, or newly coined words. Then, *-age* and *-ment* nouns sharing the same base verb were paired.

For each (N1, N2) pair, where N1 is a lexicalized nominalization and N2 is a neologism found online, the following annotations, illustrated here with the {*amincissement*, *amincissage*} and {*encuvage*, *encuvement*} pairs, have been systematically recorded:

	amincissement	amincissage
Suffix	ment	age
Stored in dictionaries (TLF+RE)	Yes	no
Lexical status	correct	correct
Base verb	amincir "(to) slim"	
Type of use	General	Technical
Domain(s) of use	Medicine, health, meteorology, zoology, philately	Tannery, textile industry, health ...
Relations between domains	Partial overlap	
Number of pages on the Web	17410	10
Number of occurrences analyzed	150	9
Contexts	centre/cure/produit d'aminsissement "center/cure/product for SLIM-MENT"	(système d')aminsissage des coutures "(system of) SLIM-AGE of seams"
	aminsissement de la couche d'ozone / de la lithosphère "SLIM-MENT of the ozone layer/lithosphere"	technique d'aminsissage ionique "technique for ionic SLIM-AGE"
		aminsissage des capitons "cellulite SLIM-AGE"

	encuvage	encuvement
Suffix	age	ment
stored in dictionaries (TLF+RE)	Yes	No
Lexical status	Correct	correct
Base verb	encuver "(to) vat"	
Type of use	Technical	Technical
Domain(s) of use	Viticulture	Masonry
Relations between domains	Disjointed	
Number of pages on the Web	198	243

Number of occurrences analyzed	47	61
Contexts	encuvage (du vin, du cabernet,...) “(wine, cabernet, ...) VAT-AGE”	un encuvement dans la fondation "a VAT-MENT in the foundation"
	trappes d’encuvage "VAT-AGE trapdoors"	fût à encuvement pour poteaux "VAT-MENT barrel for poles"
	... doit être préparé pour l'encuvage "... must be prepared for VAT-AGE"	
	Triez votre vendange avant l'encuvage "sort your grape harvest before VAT-AGE"	

“Lexical status” indicates whether the lexeme is correct (it contains no incorrect spelling; the lexeme is not an archaism or a foreign term); the value of “domain of use” is deduced from the contexts of use.

Our main conclusion is that, for speakers, there is not a clear cut distinction between suffixations in *-age* and *-ment*:

- (i) Both are equally available to coin new lexemes.
- (ii) No radical contrast can be observed between them.
- (iii) Their meaning often overlap, at least partially.
- (iv) Even with long-time stored nominalizations, as *remboursement*, one can find on the Web its counterpart with the other suffix, with no semantic distinction, as with *remboursage* in (1):

- (1) Je demande à l'OM le remboursage des 19 casquettes que j'ai achetées.
[I ask the OM the refund-AGE for the 19 caps I bought]

This conclusion contradicts the theoretical assumption “one exponent/one LFR”: the implicit postulate of discreteness of LFRs underlying the above theoretical distinctions between suffixations in *-age vs -ment* do not usually hold with real data. At best, such descriptions capture the core of LFRs, but, instead of discrete patterns, LFRs should be considered as forming systems with cores and inclines: saying that LFRs are in competition is another way of saying that their inclines can overlap.

Our investigation and conclusion are in line with the assumption of Aronoff & Lindsay (2013, 2014): “If blocking and synonymy avoidance were driving the interaction of rival suffixes, then we would expect the rival suffixes to each develop a distinct meaning over time. Remarkably, they do not”.

According to these authors (see also Aronoff 2016), historic as well as synchronic investigations prove that pattern competition – as illustrated by French *-ment* and *-age* – leads to either affix extinction or rules coexistence, in separate specialized sectors, or to a situation where one rule is hegemonic and the other survives into so-called *niches*.

We will show how {Xage, Xment} noun pairs in French, with X the common base verb, are distributed according to various classes of *niches*, and therefore how Xage and Xment pattern description reflects sub-paradigmatic regularities.

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