

Verbal compounding in Latin: the case of -MAKE verbs

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1. Introduction

1.1. What

Latin compound verbs (CVs) whose second member is a verbal constituent connected with *facio* ‘to do, make’ (-*facio*, -*fio*, -*fico(r)*):

- subclasses conveying causative meaning (e.g. *calefacio* ‘to make hot’; *labefacio* ‘to make totten’; *amplifico* ‘to widen’ etc.);
- relationship between morphological causatives and other means to encode causative meaning (e.g. *facere*+ infinitive).

1.2. Why

a) Morphologic reasons:

- -MAKE CVs represent an island of productivity in the generally unproductive area of verbal compounding in Latin;
- -MAKE CVs are endocentric constructions vs. exocentric nominal compounds;
- -MAKE CVs allow different morphological patterns (e.g. A+V; V+V);
- -MAKE formatives do not exhibit a homogeneous morphonological status.

b) Semantic-functional reasons (causatives):

- What type of causative meaning?
- How Latin meets typological classifications?

c) Diachronic reasons:

- discontinuity Latin→Romance (‘-*facio*’ pattern does not continue, ‘-*fico*’ pattern continues but -*fico* is a suffix, e.g. It. *identificare*, Fr. *identifier*, Sp. *identificar*, Rom. *a identifica*).

1.3. How

Corpus: entries ending with -*facio*, -*fio*, -*fico(r)* in Lewis and Short’s dictionary (*Perseus project*).

2. Formal features of Latin *make*-compounds

2.1. -*facio* verbs (also attested in the passive lexical form -*fio*)

2.1.1. Adv + *facio* subtype, with an adverb as first member (e.g. *benefacio* ‘to do/make something well’, *malefacio* ‘to do/make something wrong’, *fabrefacio* ‘to make skillfully’, *satisfacio* ‘to satisfy’) → Adv specifies the way in which something is done (non-causative meaning, see Lehmann fc.).

2.1.2. Genitive + *facio* subtype, with a genitive of value in the first member (e.g. *lucrifacio* ‘to gain, win, acquire’, *compendifacio* ‘to economize something’, *multifacio* ‘to make much of, to esteem or value highly’, *magnifacio* ‘to make or thing much of a thing’):

(1) *Orationis operam compendi face*

“Do cut short the trouble of your talking” (Plautus, *Mostellaria* 60)

(2) *Advocati tamen [iam pene] nocturni, qui volebant pallium lucri facere*

“This time some policemen had been called in to punish us; they wanted to make a profit out of the cloak” (Petronius, *Satyrice* 15.2.3)

(3) *Perseverasti ut pecuniam lucrifaceres*

“You have persisted in order to earn money” (Quintilianus, *Declamationes minores* 269.15.2)

(4) *Ut ego ob tuam, Simia, perfidiam te amo et metuo et magni facio*

“How do I love you, Simia, for your roguery and both fear and laud” (Plautus, *Pseudolus* 944)

➤ Are these examples ‘true’ compounds or rather a type of phrases?

Atomicity condition → the constituents of a compound:

- cannot be separated by lexical material;
- cannot be deleted under coordination;
- cannot be topicalized or be part of yes-no questions;
- cannot be co-referential with other elements in the same syntactic environment (cf. Scalise and Bisetto 1999; Masini and Scalise 2012).

➤ Compounds vs. canonical phrases (Benigni and Masini 2009:176)

- at least one of the constituents of a compound tends to be a bounded form (e.g. a root, a stem, etc);
- relational information (inflection, conjunctions, etc.) generally disappears in compounds, while linking vowels emerge;
- the order is sometimes reversed with respect to phrases (this criterion doesn’t work for Latin, the typical word-order pattern ‘modifier - head’ can often be reversed in normal syntax thus making potentially erroneous every generalization).

➤ Phrasal lexemes (Masini 2009):

- complex constructions formally akin to phrases, but lexical in nature;
- stored in the mental lexicon of native speakers and referring to a linguistic concept as a whole (cf. Sprenger 2003: 4);
- more fixed than free phrases → they normally cannot:
 - a) be interrupted by other lexical material;
 - b) undergo paradigmatic commutability;
 - c) be internally modified.

2.1.3. Verbal stem + *facio* subtype:

- characteristic pattern of *-facio* compound (Fruyt 2001:85);
- ambiguous verbal status of the 1st constituent (see Hahn 1947: see also ‘*pinguefacio* type’ in b)).

2.1.3.1. Intransitive stative bases in *-eo* (e.g. *caleo* ‘to be hot’) + *facio* → productive causative CVs meaning ‘make Q’, where Q is a quality/state/condition (also called ‘factitive’ or ‘transformative’, see Kulikov 2001:886; Lehmann fc.), e.g. *calefacio* ‘to make hot’, *madefacio* ‘to make wet’, *patefacio* ‘to (lay) open’, *tepefacio* ‘to make lukewarm’:

(5) *Is clausum lato patefecit limite campum*

“He laid open my closed field with a wide path” (Catullus, *Carmina* 68b.67)

(6) *Sanguine Tlepolemus Lyciam tepfecerat hastam*

“Tlepolemus had warmed up the Lycian spear with his blood” (Ovidius, *Epistulae (vel Heroïdes)* 1.19)

(7) *Ego tibi unum sumptum adferam, quod balneum calfacias oportebit*

“There is one expense I shall put you to: you will have to heat a bath for me” (Cicero, *Epistulae ad Familiares* 9. 16.9.4)

- Although rarely, the constituents of the compound may occur in *tnesis* (Leumann, Hofman e Szantyr 1965:566):

(8) *Principio terram sol excoquit et facit are*

“A first example: the sun bakes and dries up the earth” (Lucretius, *De Rerum Natura* 6.962)

(9) *Postea ferve bene facitō: ubi feriverit, in catinum indito*

“And let it boil very thoroughly again: after boiling turn it into a dish” (Cato, *De Agricultura* 157.9.5)

- Compounds or agglutinated forms?
 - *agglutinated forms* (Fruyt 2011:172-173): the presence of *tnesis* suggests agglutination, rather than compounding (“freezing and rigidification of a syntactic sequence to form a lexical item”);
 - *compounds*: on the basis of Benigni and Masini (2009), the *calefacio* type should be analyzed as a compound *stricto sensu*: a) the first member is always a stem-form; b) no relational information between first and second member; c) the order of the constituents cannot be inverted.

2.1.3.2. Ancient causative verbs in *-eo* (e.g. *perterreo* ‘to terrify’; *commoneo* ‘to recall, bring to mind’) + *facio*:

- created through analogy motivated by the formal productivity of the pattern ‘*-eo ~ -facio*’ (since *madeo ~ mafeacio*, then *commoneo ~ commonefacio*, see Hahn 1947:306-307);
- all the instances of this subclass (except *commonefacio*) are rare (Hahn 1947);
- *facio* does not yield any additional causative meaning nor introduces any semantic change in the first member (e.g. *perterrefacio* ‘to terrify’; *commonefacio* ‘to recall, bring to mind’).

(10) *Tuum est officium has bene ut adsimules nuptias: perterrefacias Davum*

“It’s your duty to pretend these nuptials cleverly, to terrify Davus” (Terentius, *Andria* 169)

(11) *Hoc unum commonefaciam: ista voluptas naturalis est, non necessaria*

“I will remind you only one thing: this pleasure is natural, not necessary” (Seneca, *Epistulae morales ad Lucilium* 21.11.5)

2.1.3.3. (alternation with) Inchoative *-sco* verbs:

- ‘labile verbs’, e.g. *assuesco* ‘to become accustomed/to accustom’ → *-facio* CV (e.g. *assuefacio* ‘to accustom’) will equal the meaning at work in the causative use of the verb in the first member;
- intransitive verbs, e.g. *obstupesco* ‘to become senseless, lose feeling; to be stupefied, benumbed’ → *-facio* CV acquires a causative meaning (*obstupefacio* “to astonish, amaze, astound, stupefy, benumb”);

- intransitive *-sco* verbs based on adjectives, e.g. *raresco* ‘to become rare, to be rarefied’, *pinguesco* ‘to become fat’ → *rarefacio* ‘to make thin, rare’, *pinguefacio* ‘to make fat’.

(12) *Equosque eodem remanere vestigio adsuefaciunt*

“And train their horses to stand still in the very spot on which they leave them” (Caesar, *de Bello Gallico*, 4.2.3.3)

(13) *Ipsa miraculo audaciae obstupescit hostes*

“He astounded the enemies with a miracle of courage” (Livy, *Ab Urbe Condita*, 2.10.6.1)

2.1.3.4. Verbs of 1st and 3rd conjugation:

- transitive (e.g. *matureo* ‘to ripen’; *expergo* ‘to arouse’) → *-facio* does not alter the basic meaning (e.g. *maturefacio* ‘to ripen’, *expergefacio* ‘to arouse’);
- intransitive (e.g. *labo* ‘to totter’) → *-facio* adds the causative meaning (*labefacio* ‘to cause to totter; to make ready to fall’).

(14) *Hic Italiam tumultus expergefecit terrore subito*

“This tumult aroused Italy with a sudden terror” (Cicero, *Rhetorica ad Herennium*, 4.45.23)

(15) *Quem numquam ulla vis, ullae minae, ulla invidia labefecit*

“Whom no violence, no threats, and no unpopularity ever shook” (Cicero, *Pro Sestio*, 101.6).

2.2. *-fico(r)* verbs

- cf. nominal compounds in *-fex* and adjectival formations in *-ficus* (e.g. *munifico* ‘to donate’/*munifex* ‘one who performs duties’/*munificus* ‘present-making’):

2.2.1. N + -fico (e.g. *aedifico* ‘to erect a building’, *ludifico(r)* ‘to make game of’) → “incorporating type”, i.e. N is syntactically the direct internal argument of the verb:

(16) *Si aedificabis, operis, iumentis, materiae adiuuabunt*

“If you build, the neighbours will help you with their work, their teams, and their materials” (Cato, *De Agri Cultura*, 4.1.10)

(17) *Ita belli modo, modo pacis mora consulem ludificare.*

“And thus amused the consul with alternate procrastinations of war and of peace” (Sallustius, *Bellum Iugurthinum*, 36.3.1)

2.2.2. Adj + -fico (“factitive”, e.g. *amplifico* ‘to widen’, *laetifico* ‘to delight; to render fruitful’) → Adj has a predicative function:

(18) *Quae quidem a te ipso integritate et clementia tua sic amplificata est ut nihil addi posse videatur.*

“Though, indeed, you have yourself so enhanced it by the purity and lenity of your administration, that it seems scarcely to admit of any increase.” (Cicero, *Epistulae ad Familiares*, 2.18.1.5)

(19) *Et litore solus / dux stetit Hesperio, non illum gloria pulsi / laetificat Magni*

“On Italian soil, sole lord stood Caesar: but the glory of the triumph over Magnus does not delight him” (Lucanus, *Bellum civile*, 3.49)

- *-fico* verbs are frequent in technical works (e.g. *crassifico* ‘to fatten (animals)’) and will develop in Christian Latin, also as morphological calques of Greek verbs (e.g. *beatifico* < *makarizō* ‘to make blessed’; *deifico* < *theopoiēō* ‘to deify, consecrate’) (Fruyt 2011:171).
- linking vowel: *-i-* vowel at the end of the first constituent (Bennet 1913[1895]:115): characteristic of the process of compounding especially in languages with an “overtly expressed paradigmatic inflection” (Ralli 2006 and references therein).
- *fic-* form and *-i-* vowel suggest that:
 - *-fico* verbs represent more ancient formations than *-facio* verbs;
 - the two components show a higher degree of cohesion compared with *-facio* verbs;
 - increase of semantic opacity of the formative *-fico*, which progressively undergoes a of reanalysis as a verbalizing suffix (cf. *-īgo* compounds, see Flobert 1978:89; Fruyt 2001; Brucale 2012:112);
 - *-fic-* acts as a productive suffix which forms verbs from adjectives in Romance languages (e.g. It. *identificare*, Fr. *identifier*, Sp. *identificar*, Rom. *a identifica*).

3. Causative CVs

3.1. Definition and theoretical assumptions

3.1.1. “The causative construction is a linguistic expression which denotes a complex situation consisting of two component events: 1) the causing event in which the causer does or initiates something; and 2) the caused event in which the causee carries out an action or undergoes a change of condition or state as a result of the causer’s action” (Song 2011, based on Comrie 1989:165-166 and Song 2001:256-259; see also Shibatani 1976:1)).

3.1.2. Increase of valency: “Causative adds a new A[gent] argument (prototypically to an intransitive clause – the old S[ubject] becoming O[bject] – often also a transitive” (Dixon 2000:31).

a) Intransitive clauses → causative clauses:

<i>UNDERLYING CLAUSE</i>	S
	↓
<i>CAUSATIVE CONSTRUCTION</i>	A O

Tab. 1. Causatives from intransitives (Dixon 2000:31)

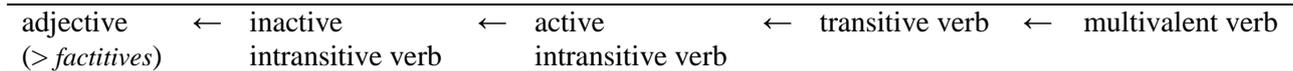
b) Transitive clauses → causative clauses:

<i>TYPE</i>	<i>CAUSER</i>	<i>ORIGINAL A(CAUSEE)</i>	<i>ORIGINAL O</i>
(i)	A	special marking	O
(ii)	A	retains A-marking	O
(iii)	A	has O-marking	has O-marking
(iv)	A	O	non-core
(v)	A	<i>non-core</i>	O

Tab. 2. Causatives from transitives (Dixon 2000:48)

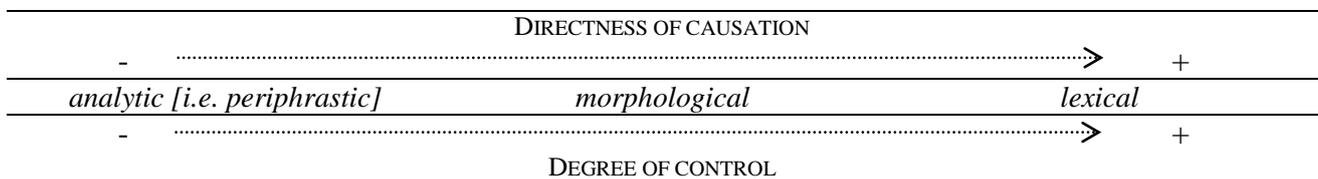
3.1.3. Base predicate implicational hierarchy for causativization (Lehmann fc.):

- a) Semantic complexity: “an additional higher agent is both more expected and easier to accommodate in a situation the fewer participants this already contains and the less control these already have”.
- b) Structural complexity: “the ensuing upheaval of the base verb valency is less radical, and the resulting valency has better chances to fit into an existent base-verb model, the lesser the valency of the base and the better the argument with the highest syntactic function fits an undergoer role”.



Tab. 3. Base predicate hierarchy for causativization (Lehmann fc.)

3.1.4. Strategies of causativization:



Tab. 4. Continuum of causative strategies (Comrie 1989: 171 ff.)

CONTINUUM OF REDUCTION					
-			+		
<i>Association with V or N</i>	LEXICAL-SYNTACTIC	GRAMMATICALIZATION			
		<i>Analytic</i>	<i>Synthetic</i>	<i>Fusional</i>	<i>Zero</i>
VERBAL	Complex sentences (full V ‘to cause’ overtly encodes the relation between participants)	Periphrastic (function V, e.g. “support verb” + non-finite V)	Derivational (morphological operator, e.g. suffix, on a base predicate)	Alternation (causative formative lexicalized with the base predicate)	Valency conversion (‘break’ type)
NOMINAL	Coverb (+ intransitive base)	Adposition	Case		

Tab. 5. Strategies of causativization (Lehmann fc., adapted; see also Comrie 1985; Shibatani 2006:229)

<..... COMPACTNESS				
-			+	
TYPE OF MECHANISM	constructions with two verbs (causative + lexical) in separate clauses	two verbs in one predicate (serial verbs, e.g. <i>faire</i> in French; compounding)	Morphological (e.g. internal, reduplication, affixation, etc.)	Lexical (e.g. <i>walk, melt</i> in English)

Tab. 6. Scale of compactness (Dixon 2000:74, adapted)

3.1.5. Semantic parameters of causativity (Dixon 2000:61 ff.)

When a language has more than one causative strategy, there is always a semantic difference involving one or more semantic parameters:

- a) Relating to the verb: 1) state vs. action; 2) intransitive vs. transitive (ditransitive)
- b) Relating to the causee: 3) low control vs. high control; 4) volition vs. non-volition; 5) partial vs. total affectedness;
- c) Relating to the causer: 6) directness vs. indirectness, 7) intentional vs. accidental; 8) naturally vs. effort, 9) involvement.

- *Correlation between semantic parameters and degree of compactness:*
that is, ‘more compact’ strategies more likely meet the following values: 1) applying only to some verbs (at the intransitive and/or state); 2) causee only partially affected, willing, lacking control; 3) causer: naturally rather than with effort, intentionally rather than accidentally, directly rather than indirectly.

3.2. Causatives in Latin: between morphology and syntax.

VERBAL STRATEGIES IN LATIN					
CONTINUUM OF REDUCTION>					
Lexical-syntactic	Analytic	Synthetic		Fusional	Lexical alternation
		Causative verbs			
Complex sentences (<i>facio, efficio, curo, compello, impello</i> etc.)	Periphrastic <i>Facere</i> +infinitive	Compound verbs with <i>-facio, -fico</i>	Derived verbs in <i>-ē-</i> (IE <i>-éye/o-</i>): <i>moneo, torreo</i> →		<i>fio/facio, accido/efficio, intereo/interficio, pereor/perdo</i> ecc.

Tab. 7. Strategies of causativization in Latin (adapted from Lehmann fc.)

3.2.1. Different strategies of causativization show different degree of productivity:

- Causative verbs in *-ē-* stands as relics in Latin (due to the competition of the homophonous stative morphemes, see Sihler 1995:531) → some of them are re-causativized by means of the *-facio* compounding (e.g. *perterrefacio*, see 2.1.3.2.);
- Compounds in *-fico* (factitive) appears to be productive, as it is suggested by their persistence in Romance languages;
- Compounds in *-facio*, among which the *calefacio* type represents an island of productivity in Latin, but they do not survive in Romance languages;
- Syntactic causatives, attested in preclassical and classical Latin, increase throughout the history Latin and are still productive in Romance languages → in particular, the *facio* + infinitive type is the forerunner of the “Standard Romance Solution” (Simone and Cerbasi 2001, e.g. It. *far fare, far mangiare*, see also Chamberlain 1986):

INTRANSITIVE :

(20) *Ignes qui faciunt solem certa de surgere parte*

“Fires that make sun rise from a determined part” (Lucretius, *De rerum natura* 5.703)

(21) *Et lento igni fervere facias*

“And bring to a boil over a slow fire” (Apicius, *De re coquinaria* 3.2.8)

(from Simone and Cerbasi 2001:454)

(22) *Nulla res magis penetrat in animos eosque fingit format flectit talisque oratores videri facit, qualis ipsi se videri volunt* (Cicero, *Brutus* 142)

“Nothing else so penetrates the mind, shapes, moulds, turns it, and causes the orator to seem such a man as he wills to seem”

TRANSITIVE:

(23) *Fuit tamen faber qui fecit phialam vitream, quae non frangebatur. Admissus ergo Caesarem est cum suo munere, deinde fecit reporrigere Caesari et illam in pavimentum proiecit*

“But there was once a workman who made a glass cup that was unbreakable. So he was given an audience of Caesar with his invention; he made Caesar give it back to him and then threw it on the floor” (Petronius, *Satyricon* 51.2)

(24) *Ut faciam ei [...] invenire mercedem*

“So that I will make him get a reward” (*Vitae Patrum* 5.10.28) (from Väänänen 1982:241)

3.2.2. Semantic parameters of causativity

A) Relating to the verb:

<i>More compact strategies</i>	Causative compounds based on states	Adj + <i>-fico</i> (2.2.) (>) States in <i>-eo</i> + <i>-facio</i> (2.1.3.2) <i>-facio</i> alternating with <i>-sco</i> (2.1.3.3)	increase of valency: A + (S>)O
	Causative compounds based on transitive bases	Rare (see 2.1.3.2, 2.1.31.4)	no increase of valency: A + O > A + O
<i>Less compact strategies</i>	Periphrases with <i>facio</i>	<i>Facio</i> + (intransitive) infinitive	increase of valency: A + (S>)O
		<i>Facio</i> + (transitive) infinitive	increase of valency: A + (S>)O(IO) + O

➤ Comrie’s (1975) hierarchy of marking of the original A in Romance languages:

SUBJECT – DIRECT OBJECT – INDIRECT OBJECT – OBLIQUE – GENITIVE – OBJECT OF COMPARISON
depending on the degree of transitivity of the verbal base, the cause (original S or A) will fill the first available slot (je ferai courir *Jean*; je ferai manger les gâteaux à *Jean*; je ferai écrire une lettre au directeur *par Jean*).

B) Relating to the causee:

DEGREE OF TRANSITIVITY /DEGREE OF ACTION	DEGREE OF CONTROL	DEGREE OF VOLITION	DEGREE OF AFFECTEDNESS
Non-active, non-transitive bases (compounds)	low (none)	low (none)	high or total
Active, transitive bases (compounds)	-	.	.
Non-active, non-transitive bases (periphrases)	<i>id.</i>	<i>id.</i>	<i>id.</i>
Active, transitive bases (periphrases)	Shared control (causer and causee)	high	low

➤ Shared control (*split agency*, Luraghi 1995):

- the causee is conceived of as a secondary agent, i.e. an “instrumental to the attainment of the target defined by A₁” (Simone and Cerbasi 2001:446).
- *causee adjunct strategy* (nominal strategy, Lehmann fc.): the causee is introduced by a preposition, typically *per* (mediate agency) and the base subject is interpreted as causer:

(25) Labienus [...] *Caesarem per nuntios facit certio rem quid faciendum existimet* (Caesar, *de bello Gallico*, 7.87)

“Labienus [...] informs Caesar by messengers (has messengers inform Caesar) of what he thinks should be done”

4. Some open-ended questions

- A) **Morphology:** *-fico* compounds → Indo-European type (formal reduction) vs. *-facio* compound → Romance type (in terms of Rasmussen 2002:333); however, *-facio* compounds do not survive in Romance languages, whereas *-fico* becomes a productive suffix.
- B) **Causatives:** *-facio* and *-fico* compounds is productively used to form “factitive” verbs based on states or adjectives:
- consistency with Dixon’s (2000) analysis: “more compact”, i.e. more grammaticalized strategies tend to apply only to some verbs (mostly intransitives and states);
 - the semantic features of the causee do not fully meet Dixon’s (2000) generalization;
 - what about active intransitive and transitive bases? (Simone and Cerbasi 2001:454: “Latin was not a strongly causative-oriented language”);
 - is there a difference between the two strategies, i.e. *-facio* strategy and *-fico* strategy?

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