

Dissolving the French conjugation classes

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Introduction. Conjugation classes in Romance and beyond are typically seen as ornamental: they do not contribute anything deterministic to the syntax or semantics but are a morphological necessity (Oltra Massuet 1999, Albright 2003, Embick 2010). Contrary to this view, we explore the intuition that most French “Group 2” verbs have semantic characteristics, namely that they denote change of state (CoS). We provide a first experimental test of this hypothesis and outline a formal analysis. Our conclusion is that even though Group 2 is no longer productive, it contains a productive Cause morpheme which speakers are able to generalize from.

French verb groups. French verbs appear in one of three conjugation classes (Boyé 2010, a.m.o): Group 1 is productive and contains around 6,000 types. The infinitive is marked by the *-er* suffix. Group 2 has not been productive for more than a century (Kilani-Schoch & Dressler 2005) and contains 300–400 types. The infinitive is marked by the *-ir* suffix. Group 3 is not productive either and contains less than 400 verbs, with various kinds of morphological marking. El Fenne (1994) demonstrated that native speakers conjugate nonce verbs in Groups 1 and 2 equally well but in Group 3 poorly, indicating that the inflectional paradigm for Group 2 is regular despite the class itself being unproductive (see also Boyé 2000, Bonami et al. 2008).

Many verbs in Group 1 (*-er*) are activity verbs and many are CoS verbs. Group 2 (*-ir*), however, is strongly CoS. Most *-ir* verbs are **word-derived** (Arad 2003 et seq), usually deadjectival (*maigr-ir* ‘become thin(ner)’ < *maigre* ‘thin’). With very few exceptions (e.g. *chérir* ‘cherish’ < *cher* ‘dear’), these verbs have a CoS meaning. A sizeable but much smaller group of *ir*-verbs are **root-derived**, and these can be activity (*agir* ‘act’) or in fewer cases CoS (*pourrir* ‘putrefy’). And so even though French encodes no deterministic rule associating *-ir* morphology with a CoS meaning, an open question is whether speakers nevertheless associate such a meaning with word-derived *-ir* verbs. A further difference between *-ir* and *-er* concerns the transitivizing prefixes *a-/en-* (Junker 1987; Labelle 1992; Di Sciullo 1997). For *-er*, prefixed verbs are mostly transitive only; as a result *se* is often needed to obtain the anticausative of a prefixed *-er* verb. Yet *-ir* verbs more easily have an anticausative when prefixed, e.g. *a-moch-ir* ‘get ugly’, even without the reflexive *se* (Thorn 1907).

Hypotheses. We break down the activity/CoS distinction, the *-er/-ir* distinction and the prefixed/unprefixed distinction into two hypotheses. H1 (Semantics): Whereas in *-er*, *-e-* is a semantically inert default thematic vowel, the infix *-i/iss-* of *-ir* spells out the verbalizing head Cause (1a), similarly to Latin *-i/esc-* (Schwarze 2009). The resulting formation is a CoS predicate (Kratzer 2005; Alexiadou et al. 2015), (1b). But this only happens when *-i/iss-* combines with a stative predicate. In a root-derived verb, no stative predicate can feed the *P* argument, and *-i/iss-* spells out the function (2). It is then the root which provides the activity property *P* (e.g. *ag-* in *agir* ‘act’) or the CoS property *P* (e.g. *pourr-* in *pourrir* ‘putrefy’); see Beavers & Koontz-Garboden 2020 on the root of *break*-verbs.

- (1) a. $-i/iss- \rightsquigarrow \lambda P \lambda y \lambda s \lambda e. (\text{cause}(e, s) \wedge P(s) \wedge \text{theme}(s, y))$
b. $\text{maigr-}i\text{-}r \rightsquigarrow \lambda y \lambda s \lambda e. (\text{cause}(e, s) \wedge \text{thin}(s) \wedge \text{theme}(s, y))$ (anticausative)
(2) $-i/iss- \rightsquigarrow \lambda P \lambda v. P(v)$

This analysis makes two correct predictions. The thematic vowel *-e-* is combinable with all verbalizers, e.g., *-ifi-*, *-is-*, *-ass-* (cf. *-ifi-e-r*, *-is-e-r*, *-ass-e-r*, etc.). But since verbalizers do not stack (and *-i/iss-* is one), the inexistence of **-if-i-r*, **-ass-ir*, ... verbs is accounted for. We also account for why *-i/-iss-* is present across the whole inflectional paradigm, while *-e-* only appears in the infinitive and the past participle: *-i/iss-* takes part in the semantic composition of the verb.

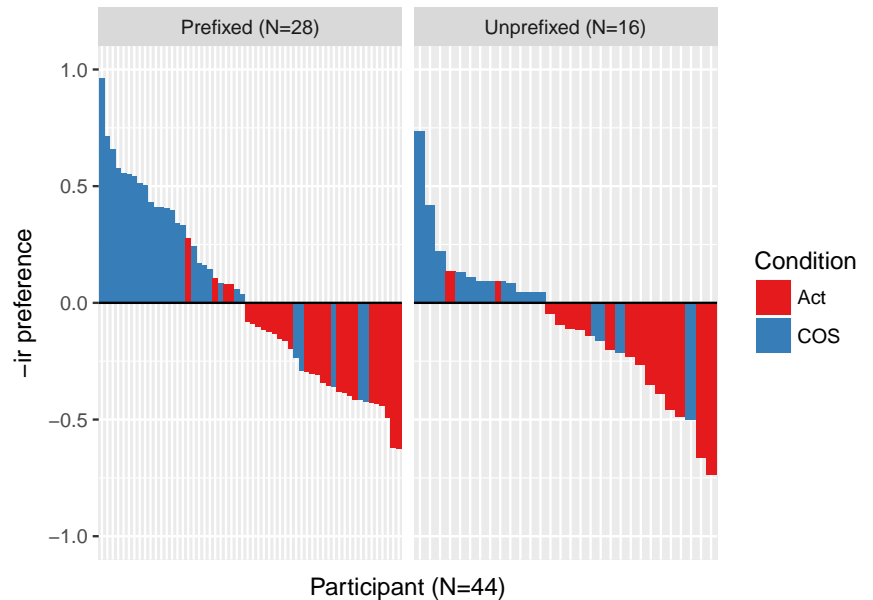
H2 (Syntax): The prefix usually spells out Voice, so prefixed *-er* verbs are transitive. But prefixed *-ir* verbs have often been claimed to be parasynthetic formations (see Rainer 1993 a.o.). Adopting this view, we attribute to the discontinuous morpheme *a/en-...-i/iss-* the semantics in (1a)-(2) (enriched with additional prefix-specific meanings), that does not involve Voice. Thus the discontinuous morpheme *a/en-...-i/iss-* is not transitivity. Hence why when prefixed, *-ir* verbs may be used in anticausative frames more easily than *-er* ones.

Experiment. In our pilot study, Experiment 1 (N=28) used *a/en-* prefixed verbs and Experiment 2 (N=16) used unprefixed verbs. Participants were given nonce adjectives in contexts designed to elicit activity or CoS readings, and asked to choose a verbal form derived from the nonce adjective. Translations of sample items are given in (3)–(4) with indicators of the activity or CoS readings underlined. Participants were asked to choose whether a nonce *-ir* form or a nonce *-er* form fit better, on a 7-point scale. Order of presentation and items was randomized. In the activity context, we expected a preference for *-er*. In the CoS context, we expected a preference for *-ir* (word-derived *-ir* verbs have a stronger CoS meaning than *-er* ones, which can be activity, too).

- (3) The world changes at a crazy speed and is becoming ever more **baigle**. For the sociologist Michel Pernu, it is because of globalization—which disrupts everything and builds new frameworks for organizing human societies—that the world en-baigle/en-baiglit at full speed.
- (4) Everyone has noticed that the new colleague is very **blatoche**: he is super nice, attentive, professional, etc. The other day, (...) he a-blatochait/a-blatochissait as usual with a customer.

Results. Responses were z-transformed

such that a score of 1.0 indicates the strongest consistent preference for the *-ir* form and likewise -1.0 for *-er*. The plot summarizes the responses by participant and condition within each experiment. We expected to find positive scores for CoS (preference for *-ir*) and negative scores for Activity (preference for *-er*). This is indeed the finding, regardless of whether the verbs were prefixed or not, supporting H1. A mixed effects regression with Condition and Prefix as predictors confirmed the significance of Condition ($p = 0.007$), with no effect of Prefix or interaction. The Activity/COS distinction was a strong predictor of participants' choice, in line with H1, but H2 was not supported. However, the visual and numeric results do imply that the CoS preference was stronger when the verb was prefixed, indicating that further testing of H2 is needed.



Conclusion. French has no conjugation classes as such. Rather, it has regular verbs (*-er*, “Group 1”), a small set of irregulars (“Group 3”), and verbs with the *-i/iss-* affix (“Group 2”). More generally, the syntactic and semantic primitives Voice and Cause can take form in various ways; speakers notice these and are able to generalize over them.