## Inflection-Inflection vs. Inflection-Derivation competition in loanword integration

## Francesco Gardani Vienna University of Economics and Business

The goal of my contribution is to enlighten the mechanisms of rules competition which underlie and govern the process of loanword integration and, in particular, of morphological integration. More specifically, my investigation aims to show that competition occurs both within the inflectional module of morphology and between inflection and derivation. As a case-in-point, I examine instances of integration of loanwords into the nominal systems of Latin and of Old Italian.

In the literature, loanword integration is mostly treated from the mere perspective of phonological approximation (e.g., Chang in press, Dohlus 2005, LaCharité & Paradis 2005, Paradis & LaCharité 2008) and of individual lexical analogies (e.g., André 1971, Biville 1990, 1995). Even when morphological integration has been dealt with (e.g., Winford 2003: 48-51, Wohlgemuth 2009, Haspelmath & Tadmor 2009), neither the issue of lexical transfer has been tackled in light of the decisive factor of productivity, nor has productivity-determined morphological rules competition been investigated thoroughly.

Within the framework of Natural Morphology and particularly within its model of inflectional morphology (Dressler 1997, 2003), productivity is understood as grammatical productivity and envisaged as a "constitutive primitive property of inflectional patterns" (Dressler 2003: 31). As a prototypical property of rules, productivity steers the process of inflectional integration and determines its outcomes.

According to psycho- and neurolinguistic models such as the morphological race model (cf. Baayen, Dijkstra & Schreuder 1997), inflectional morphology is processed on two parallel paths, namely prelexical morphological parsing and direct access route based on stored full-form representations for morphologically complex words. Prototypically, whereas unproductive patterns are assigned the status of lexical storage and belong to static morphology, productive patterns (categories, rules and classes) are assigned the status of symbolic rule mechanism and form the core of dynamic morphology (cf. Kilani-Schoch & Dressler 2005: 118-121). As it has been observed (cf. Dressler 1997: 14-15, 2003: 51-52), when more than one productive pattern applies to the same domain, this pattern rivalry weakens the patterns' competitivity with lexical access.

In this paper, I go beyond the morphological race model and, adopting a competing motivations approach (cf. Du Bois 1985, Bates & MacWhinney 1989, Haspelmath 1999), I show not only that in the process of morphological integration different rules may compete for the same input, but also that this competition may be carried out at different *loci* of the morphological processing. Two scenarios are conceivable: either two or more productive inflectional patterns compete with each other, that is, competition occurs intra-modularly, or an inflectional pattern competes with a productive derivational one, that is, competition occurs inter-modularly. I will call the first scenario intra-modular or Inflection-Inflection (henceforth, I-I) competition and the second scenario inter-modular or Inflection-Derivation (henceforth, I-D) competition.

In Gardani (forthc.) the productivity of the nominal inflection of Latin from the beginnings of its documentation to Early Medieval Latin and of Italian from its emergence up

to 1400 has been measured on the basis of five hierarchical criteria which include the investigation of loanword integration, of indigenous conversions, and of class shift occurrences. The data on loanword integration are drawn from the contact settings of Latin with Etruscan and Ancient Greek, on the one hand, and of Old Italian with Germanic languages, Arabic, Byzantine Greek and Old French, on the other.

As far as I-I competition is concerned, the analysis of the morphological variants reveals not only different grades of morphological integration, e.g., in Latin the Graecisms stacta -ae (F) 'gum-resin' from  $\sigma\tau\alpha\kappa\tau\dot{\eta}$  - $\tilde{\eta}\varsigma$  (F) and poeta -ae (M) 'poet' from  $\pi\omega\eta\tau\dot{\eta}\varsigma$  - $\omega$  (M) vs. the corresponding less integrated Graecising forms stacte -es (F) and poetes -ae (M), but also indicates competition between different inflectional classes. Moreover, there are three sub-scenarios of intra-modular competition:

Sub-scenario 1a: Competition of two or more classes which display different degrees of productivity, as shown in the examples (1) to (3):

- (1)  $\lambda \alpha \mu \pi \dot{\alpha} \varsigma$  - $\dot{\alpha}$ δος (F) > lampada -ae (F) (Plautus) vs. lampas -adis (F) (Plautus) 'torch'
- (2) δογμα -ατος (N) > dogma -ae (F) (Laberius) vs. dogma -atis (N) (Cicero) 'a doctrin'
- (3) στατήρ -ῆρος (M) > statera -ae (F) (Varro) vs. stater -eris<sup>1</sup> (M) (Hieronimus) 'steelyard'

Sub-scenario 1b: Competition of two or more classes with an identical degree of productivity, one of which has phonological and morphological properties that are incompatible with the original input forms, as enlightened in the examples (4) and (5):

- (4)  $\mu$ εσπίλη -ης (F) > mespila -ae (F) (Plinius) vs. mespilus -i (F) (Plinius) 'a medlar tree'
- (5) κῶλον -ου (N) > colum -i (N) (Plinius) vs. cola -ae (F) (Fronto) 'large intestine'

Sub-scenario 1c: Competition of two or more classes which display an identical degree of productivity and both have phonological and morphological properties which are incompatible with the original input forms, as in the examples (6) to (9):

- (6) διαιτάρχης -ου (M) > diaetarcha -ae (M) (CIL VI, 8645) vs. diaetarchus -i (M) (CIL VI, 5187) 'a servant'
- (7) κῆτος -εος, τό > cetus -i (M) (Plautus) vs. cetum -i (N) (Plinius) 'a large sea-animal'
- (8) τάπης -ητος (M) > tapetum -i (N) (Livius Andronicus) vs. tapete -is (N) (Ennius) 'a woollen cloth'
- (9)  $\gamma \alpha \nu \sigma \acute{\alpha} \pi \eta \varsigma$  -ου (M) > gausape -is (N) (Lucilius) vs. gausapa -ae (F) (Varro) vs. gausapum -i (N) (Ovidius) 'cloth of woollen frieze'

As far as I-D competition is concerned, derivational morphology may enter in conflict with an inflectional rule and compete with it on the attribution of an inflectional class, that is, a productive derivational suffix of the receiving language may exert pressure on the process of integration of a loanword into an inflectional class. The alluded influence may be due to

<sup>&</sup>lt;sup>1</sup> In examples (1)-(3) the a-stems display full productivity, whereas the consonantal stems display mid-low productivity.

partial, superficial phonological similarities between the input form and forms of the receiving language, whereby these similarities have not an actual, once-character such as in surface analogy (e.g. Italian *marzapane* 'marzipan', from Arabic *marṭabān* on the model of *pane* 'bread') but display a serial rule-driven character, as in the following examples:

- (10) Arabic  $l\bar{a}t\bar{u}n >$  ottono (M) (Guinizzelli, a. 1276) vs. ottone (M) (Doc. fior., 1262-75) 'brass'
- (11) Arabic qutn > cotono vs. cotone (both M) (both in Doc. sen., 1281-82) 'cotton'
- (12) Old French *destrier* > destriero (M) (Guittone, a. 1294) vs. destriere (M) (Ruggieri Apugliese, XIII m.) 'charger'

As evidenced by the examples (10)-(12), two different processes are at work here: On the one hand, the productive suffixes *-one* and *-iere* of the receiving language attract the loannoun into their inflectional schema; on the other hand, the fully productive class *libro -i* applies. The product of this competition are allomorphic forms, whose long-term success can be determined only diachronically. The role played by the derivational suffixes involved sets instances such as *cotone* or *destriere* apart from cases in which loanword integration occurs by the explicit use of a derivational suffix, that is, cases in which the derivational suffix which is used to integrate the word morphologically and also determines its inflectional class in the receiving language, adds new semantic derivational meaning to the word borrowed. This is best exemplified by the lexeme *harpago -onis* (M) in Latin, borrowed from Ancient Greek  $\dot{\alpha}Q\pi\alpha\gamma\dot{\eta}$  - $\ddot{\eta}\varsigma$  (F) 'hook', with the figurative augmentative-pejorative meaning of 'pilferer, rapacious person' in its earliest attestation (Plautus).

By applying the competing motivations approach to the analysis of inflectional productivity conducted on a well-documented historical corpus, this paper contributes to a better understanding of the dynamics underlying morphological integration and inflectional class attribution.

## **References:**

André, Jacques. 1971. Emprunts et suffixes nominaux en latin. Genève: Droz.

Bates, Elisabeth & Brian MacWhinney. 1987. Competition, variation, and language learning. In Brian MacWhinney (ed.), *Mechanisms of language acquisition*, 157–193. London: Lawrence Erlbaum.

Baayen, R. Harald, Teun Dijkstra & Robert Schreuder. 1997. Singulars and plurals in Dutch: Evidence for a parallel dual route model. *Journal of Memory and Language* 37. 94–117.

Biville, Frédérique. 1990. *Les emprunts du latin au grec. Approche phonétique*, tome I. Louvain, Paris: Peeters.

Biville, Frédérique. 1995. Les emprunts du latin au grec. Approche phonétique, tome II. Louvain, Paris: Peeters.

Chang, Charles B. (in press). Phonetics vs. phonology in loanword adaptation: Revisiting the role of the bilingual. In Alex Bratkievich, Daniel Bruhn, Amy M. Campbell, Ramón Escamilla, Lindsey Newbold, and Russell Rhodes (eds.), *Proceedings of the 34th annual meeting of the Berkeley Linguistics Society: general session and parasession on information structure*. Berkeley. CA: Berkeley Linguistics Society.

- Dohlus, Katrin. 2005. Phonetics or phonology: Asymmetries in loanword adaptations French and German mid front rounded vowels in Japanese. *ZAS Papers in Linguistics* 42. 117-135.
- Dressler, Wolfgang U. 1997. On productivity and potentiality in inflectional morphology. In *CLASNET Working Papers* (Université de Montréal), 7. 3-22.
- Dressler, Wolfgang U. 2003. Degrees of grammatical productivity in inflectional morphology. In *Italian Journal of Linguistics* 15(1). 31-62.
- Du Bois, John W. 1985. Competing motivations. In John Haiman (ed.), *Iconicity in syntax*, 343-366. Amsterdam: Benjamins.
- Gardani, Francesco (forthc.). *Dynamics of morphological productivity. Noun inflection from Archaic Latin to Old Italian.* [Submitted to press]
- Haspelmath, Martin. 1999. Optimality and diachronic adaptation. Zeitschrift für Sprachwissenschaft 18(2). 180-205.
- Haspelmath, Martin & Uri Tadmor (eds.). 2009. *Loanwords in the world's languages. A comparative handbook*. Berlin: de Gruyter.
- Kilani-Schoch, Marianne & Wolfgang U. Dressler. 2005. *Morphologie naturelle et flexion du verbe français*. Tübingen: Narr.
- LaCharité, Darlene & Carole Paradis. 2005. Category preservation and proximity versus phonetic approximation in loanword adaptation. *Linguistic Inquiry* 36(2). 223-258.
- Paradis, Carole & Darlene LaCharité. 2008. Apparent phonetic approximation: English loanwords in Old Quebec French. *Journal of Linguistics* 44(1). 87-128.
- Schultink, Henk. 1961. Produktiviteit als morfologisch fenomeen. *Forum der Letteren* 2. 110-125.
- Winford, Donald. 2003. An introduction to contact linguistics. Malden, Mass.: Blackwell.
- Wohlgemuth, Jan. 2009. A typology of verbal borrowings. Berlin: de Gruyter.