

On the representation of affixes in a morphology without morphemes



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The dereification of morphemes

"the only generally-valid (certainly the only cross-linguistically valid) notion of the "morpheme" is that of a rule, a formal operation which may apply to a stem on the basis of its associated morphosyntactic features, rather than that of a thing, or unit-representation."
[Janda 1983]

Probabilistic morphology

Modelization of analogy

- both regular and irregular phenomena are sensitive to frequency
- the distinction rule / analogy is more a quantitative than a qualitative one [Blevins & Blevins 2009]
- patterns of redundancy between forms that are stored in the lexicon
- non-directionality of complex words (cf. *-ism/-ist, It. -tore/-zione/-tura*)
- simultaneous contrasting forces
 - transparency (compositionality base / exponent)
 - homogeneity within a lexical series

What are morphological rules?

- traditional WFR are an operation effectuated on a base in order to obtain a new lexeme
- in this perspective, they are patterns of correspondence (redundancy) between forms
- notion of 'construction' (construction grammar and morphology) [Jackendoff, Booij]

Constraint-based morphology

The Italian 'suffix' *-cismo* (derives from names of Greek letters, example from Roché 2007) - data from Gradit (Grande Dizionario Italiano dell'Uso)

<p>1. Constraint on the form of the output</p> <p>tacismo > (a)cismo > ismo</p> <p>rotacismo capriciosismo sigmatismo betacismo gornuciosismo delatocismo lambdacosismo etacismo sigmacismo itacismo lotacismo mutacismo retacismo zetacismo</p>	<p>2. Base-derivate faithfulness constraint: <i>betacismo, delatocismo</i></p> <p>3. Prosodic constraint (2 syllable base): <i>rotacismo, mutacismo</i></p> <p>sigmatismo vs. sigmatismo (2700 - 300 on Google)</p> <p>In Gradit: gmatismo 11 / gmatismo 2 gmatico 35 / gmatico 1 / gmatico 0</p>
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The suffix *-(z)ione*

educate	<i>educare</i>	<i>educato</i>	<i>educazione</i>
send	<i>spedire</i>	<i>spedito</i>	<i>spedizione</i>
expulse	<i>espellere</i>	<i>espulso</i>	<i>espulsione</i>
concede	<i>concedere</i>	<i>concesso</i>	<i>concessione</i>
extinguish	<i>estinguere</i>	<i>estinto</i>	<i>estinzione</i>
understand	<i>comprendere</i>	<i>compreso</i>	<i>comprensione</i>
absolve	<i>assolvere</i>	<i>assolto</i>	<i>assoluzione</i>
attribute	<i>attribuire</i>	<i>attribuito</i>	<i>attribuzione</i>

The suffix *-(z)ione*

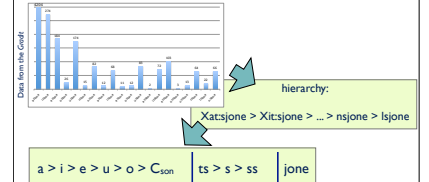
2 hypotheses:

- the form of the suffix is [jone]
 - strong allomorphy of the bases
 - no specific link with a form of the verb
- the suffix has different allomorphs ([atsjone], [itsjone], [lsjone]...)
- the selection of bases is problematic

Scalise 1983; Thornton 1990/1991

The suffix *-(z)ione*

A closed number of possible forms (20 from [atsjone] to [nsjone])



The suffix *-(z)ione*

- The base of the *-(z)ione* derives (and also of *-tore*, *-tivo*, etc.) is a stem that can be identical to the one of the past participle or distinct from it
- A stem corresponds to a set of word forms in systematic co-variation (practically, the sequence that allows obtaining the largest number of forms with the smallest number of rules)
- The affix is a hierarchized set of constraints on the form of the output
- The output is the result of the interaction between a base / derivate faithfulness constraint and a hierarchy for the form of the exponent
- Advantage: it is no more necessary to mechanically segment a (verbal) morpheme and an affix

The suffix *-(z)ione*

- it is no more necessary to mechanically segment a (verbal) morpheme and an affix → against additive morphology lexical gaps

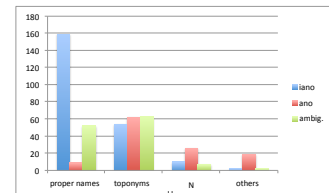
emulsione	emulsore	emulsivo
ossessione		ossessivo
recensione	recensore	

- the semantic base of the derivate is a predicate typically expressed by a verb, but that can be expressed by a word of another class → [atsjone] as default form

bigliettazione
sudorazione
zonazione

The suffix *-iano*

-ano / *-iano* in the Italian lexicon
(ambiguous forms = *Italia* > *italiano* / *Croce* > *crociano*)

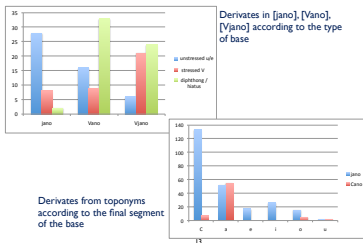


The suffix *-iano* in today's Italian

1. *-iano* with proper names and (especially foreign) toponyms
2. *-ano*, in particular
 - i. derives from toponyms (especially Italian)
 - ii. (rare) derives from other types of bases (*ergastolano*)
 - iii. derives from which the emergence of the glide [j] is phonologically disfavoured (*dipietriano* / *dipietrano*)
3. several ambiguous derivatives

The suffix *-iano*

A corpus of 1 890 derivatives not attested in dictionaries (1,412 < proper N (human); 382 < foreign toponym; 96 < proper N (non-human))



The suffix *-iano*

The interaction of the constraints

1. Hierarchy in the form of the output
[ano] > [eano] > [vano] > [oano] > [Cano]

that is:
[Vano], where V = [i] > [e] > [u] > [o] > [a]

2. base / derivate faithfulness

3. [Vano] > [Viano]

• Ratio VV / VV in the Italian lexicon ≈ 3,5/1
• Diachronically, VV > VV (ex. 12th century: *Teiano* > *Teano*)
• Tendency of V to become a glide

Conclusions

Other possible applications

- hypocoristic suffixes in Russian [Vjā], [Vxā], [Vnā]: the value of V depends from a V which is present in the base, but it may be [j] by default: *Grigorij* > *Grīša* / *Grūša*
- reduplication
- "Ordering of allomorphs" [Bonet, Lloret, Mascaró 2006]

Conclusions

Word-based morphology

- Priority is given to the relation between forms and not to their decomposition
- Affixes are exponents of morphological operations (no distinction between segmental and non segmental phenomena): constraints on the form of the output
- The constraints on the form of the output are hierarchically ordered and are in interaction / competition with other constraints (among which base / derivate faithfulness, lexical homogeneity)