# The inherent strength of initial positions: Perspectives from Southern Italian dialects

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## 1. Problem

In typology and diachrony the initial position is seen to be strong compared to the other positions:

- It hosts more contrasts and a wider array of consonants.
- It is asymmetrically resistant to weakening/change over time.

In phonological theory, the phonological models of positional strength have built the inherent strength of the initial position into the system. A widespread view is that the strength of initial positions is a design feature of (phonological) grammar. However, in Southern Italian dialects, such as Neapolitan, initial voiced stops: [b], [d], and [g] are weakened to fricatives, liquids or glides: [v], [r] and [j, w, v].

We will show in this presentation that the initial weakening in Neapolitan is not a product of lenition, rather it is the case that the initial position is playing host to a wider set of contrasts which set up quasi-morphological paradigms. Roots come in strong and weak forms depending on their morphemic environment. This view preserves the hypothesis that initial positions are inherently strong because it is only in a strong position which can host such a quasi-morphological contrast.

## 2. The Pattern (as traditionally presented)

In Neapolitan, the weak variant of the stop is found both in absolute initial position and intervocalically, whereas, the strong variant is found in post-consonantal position and in positions created by *Raddoppiamento Sintattico* 'syntactic doubling' (RS).

(1) Old and Modern Neapolitan (labial voiced stop pattern)

(a) ##\_ absolute initial position

Neap.	Old Ita.	Gloss
vasta	basta	'enough'
viato	beato	'lucky'

(b) V\_V internal words or at words boundaries

sivo	sebo	'sebum'
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(povera) vestia	bestia	'beast'
li vagne	i bagni	'the bathrooms'
(c) Raddoppiamento Sintattico	(RS)	
/ v / $\rightarrow$ [ b: ] / Ø <sub>C</sub> #_		
tre/Ø <sub>C</sub> / [b:]ote	tre volte	'three times'
$a/O_C/$ [b:]iento	al vento	'in the wind'

(d) More RS (traditionally referred to as post-consonantal RS)

no/Ø <sub>N</sub> /	[b:]ego	non vedo	'cannot see'
pe/Ø <sub>C</sub> /	[b:]encere	per vincere	'to win'

## 3. How the Pattern Clashes with Phonological Models

Typically, strength and weakness in words is distributed as shown in (2).

(2) Strong and weak positions

Strong pos	itions (onsets)	Weak position	Weak positions (intervocalic onset, coda)		
$\# \left[ {_{\sigma}C} \right. V$	C [ C V	V[ <sub>σ</sub> CV	[ vC#		

## 3.1 The 'Coda' Mirror and CVCV

The Neapolitan initial weakening seems to run against the general CVCV formulation of the 'Coda' Mirror (Ségéral & Scheer 2001), revised by Scheer and Ziková 'Coda'-mirror v2 (2010).

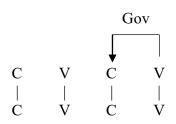
The strength of consonants depends on the licensing force they can obtain from a vowel position to its right. Strength and weakness derive from a position's ability to receive the contradictory forces of strength (licensing) and weakness (government). Since Scheer and Ziková (2010), it is understood that a position which could in principle be both licensed and governed is only governed. Due to its conditions, the following constellation of strength and weakness ensue:

- C is weak when it is [-Lic, -Gov] 'word-final coda' or [+Gov] 'intervocalic'
- C that is [-Gov, +Lic] is strong 'initial' or 'post-consonantal'

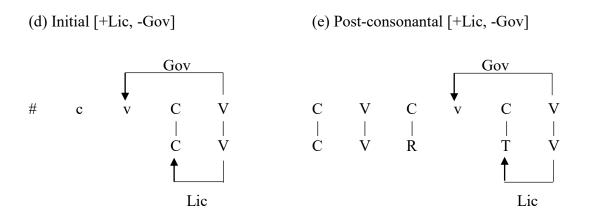
(3) Weakness in the (unified) disjunctive context {C.\_,\_#})

(a) w	vord-int	ernal 'c	oda' [-	Gov, -L	ic]	(	(b) w	vord-fin	al 'cod	a' [-Gov, -Lic]
С	V	С	v	С	V	(	С	V	С	V
С	V	R		Т	V	(	С	V	С	

(c) intervocalic [+Gov]



(4) Strength in 'Coda'-mirror

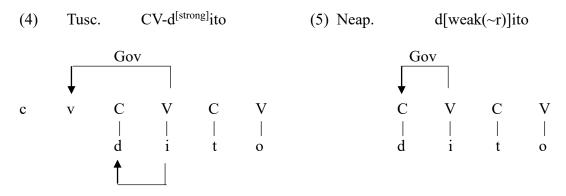


In Southern Italian, however, the supposedly weak intervocalic position, vCv (si<u>v</u>o) is phonetically identical to the object in the 'Coda' Mirror, which should be a strong position:  $\emptyset$ Cv (<u>v</u>iato).

Indeed, the Neapolitan pattern is the reverse of Tuscan Italian lenition, where positional strength and weakness are successfully modelled with the 'Coda'-Mirror v2.

(3)	Tusc.	[ <b>d</b> i:θo]	dito	'finger'
	Neap.	[ <b>r</b> i:to]		

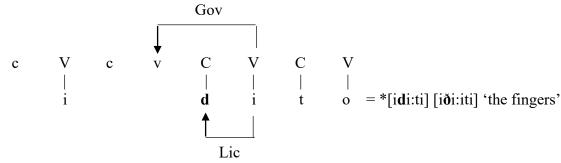
One potential CVCV solution for the initial consonant being strong in one dialect and weak in another, would be to parametrize the presence of an initial CV (Scheer 2012):



Lic Outcome: strong (d) weak (~r)

However, in this case, the solution fails because there are no relevant differences between RS in Tuscan and Neapolitan. In both varieties, RS is triggered by many proclitics in the South as well as in Tuscany. If there were an extra CV in Tuscan, it would be identified (in some way) by this process, probably by blocking Sandhi (cf. D'Alessandro and Scheer 2015) (just as nuclear initial structures do (Ulfsbjorninn 2014), and by allowing root-initial proclitics to resist spirantisation (ibid.), the context for which is intervocalic (ibid.).

(6) Proposed initial CV should inhibit context for spirantisation



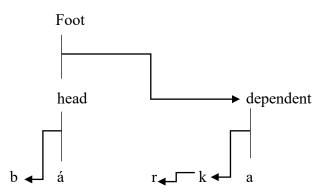
Because this extra CV is not found in Tuscan it cannot (and would not) be used as an explanation for the difference between strong initials in Tuscany and weak initials in Neapolitan.<sup>1</sup>

## 3.2 Licensing Inheritance

The Neapolitan pattern also seems problematic for the model of lenition presented in *Licensing Inheritance* (Harris 1997). In this model, word-initiality is not inherently strong, but being initial within a \*foot\* is.

This model unifies strength and weakness by proposing what is shown schematically in (7) beneath. Positions licensed directly from the head of the foot are strong, while other positions are weak.

(7) Licensing inheritance, strength and weakness



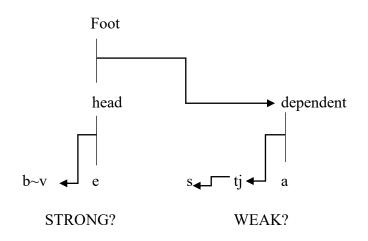
<sup>&</sup>lt;sup>1</sup> Allowing deletion of the initial CV under proclisis would resolve the problem, but only arbitrarily as the CV would be present when needed and removed when problematic.

**STRONG** 

## WEAK

This model appears not to account for Neapolitan lenition because, the lenited position can be (and often is) foot-initial, the universally strong position:

(8) (povera) v(éstia) '(poor) beast'



As the diagram in (8) shows, Licensing Inheritance should predict that a strong result for the b-v position as this onset is licensed by the foot head. Against the prediction of the model, the initial consonant surfaces in its weak form: v.

## **3.3 Summary and Implications**

- So does word-initial weakening in Neapolian mean that we ought to abandon initial strength as a design property of phonological grammar?
- Should initial strength be removed as an expectation of phonological universal grammar?

No, paradoxically, the data does not contradict theories of inherent initial strength, rather it supports them:

## \*\*\*This kind of initial weakening is not lenition\*\*\*

One clue should have been that voiceless consonants are not reduced in these so called 'weak contexts': cf. [rítə] *dito* 'finger', [tóts:ə] *tozzo* 'piece (of bread).

How can initial weakening not be lenition? The answer to this lies in the next section:

## 4. Neapolitan Initial Weakening is not Lenition

## 4.1 Reanalysis of Neapolitan

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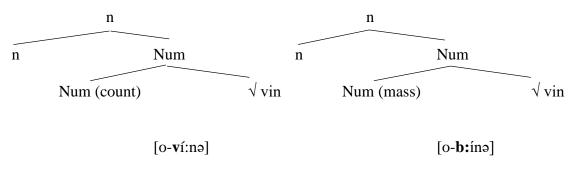
- The consequence of this initial weakening is to increase phonological contrasts as a reenforcing cue for morphological and quasi-morphological patterns.
- Roots will undergo weak-initial vs. strong-initial alternations depending on their morphemic context.
- Indeed, \*\*\*only a strong position that can hold such a contrast\*\*\*.
- This is the morpho-phonology recruiting a phonotactic and deploying it systematically in a position of phonological strength (to its own advantage).
- This type of (quasi-)morphological contrasts are almost always initial, they are usually called 'consonant mutation' and occur in very many languages.

Туре	Strong/weak	Form	Gloss	5
simple n	weak	[vá:sə]	bacio	'kiss.n'
indefinite Det	weak	[nu:vá:sə]	un bacio	'a kiss'
three Noun	strong	[treb:árkə]	tre barche	'three boats'
Def article Sg	weak	[a-vók:ə]	la bocca	'the mouth'
Def article Pl	strong	[e-b:ók:ə]	le bocche	'the mouths'
Pret	weak	[adʒ:ə-víp:ətə]	ha bevuto	'he/she drunk'
Neg	strong	[nu-b:érə]	non bere	'do not drink'
S-	strong	[z-bíɲ:ə]	scappare	'escape'
N-	strong	[ <sup>m</sup> -bɔ́:lə]	in volo	'in flight'
N- (Loc)	strong	[m:ók:ə]	in bocca	'in mouth'
Count n	weak	[o- <b>v</b> í:nə]	il vino	'wine (count)'
Mass n	strong	[o- <b>b:</b> ínə]	il vino	'wine (mass)'

(9) Quasi-morphological alternations

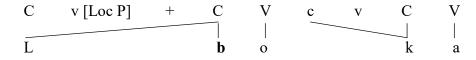
Here, we see a strong-weak alternation providing morphological information, reinforcing certain quasi-morphological patterns. In the case of the count and mass noun we have some of the strongest evidence for root initial consonants being alternated, strong and weak, to expone an aspect of the morpho-syntax:

(10) Morphosyntaxphonology of wine in Neapolitan, count and mass



But we also see strong forms with the locative preposition, which underlyingly is probably only a floating nasal feature.

(11) Locative preposition + bok:a [bok:a] 'in mouth'



But also with cases of quasi-morphemes such as the prefix S-: [z-bín:ə] 'escape', which forms a quasi-paradigm as a semi-productive, semi-fossilised inheritance from Latin ex- 'out of'.

#### 4.2 Convergent typological findings

Typologically, this conforms to other better known cases of what may look like initialweakening, but which are (even more clearly) morphological contrasts, the so called 'mutations'. These are discussed not as lenition, but as paradigm effects in a number of unrelated languages: Bantu (Kula 2002), Nivkh (Shiraishi 2006), West Atlantic (Ulfsbjorninn forth.) and Celtic (Breit forth.).

We illustrate this with the word-initial weak-strong patterns of Seereer-Siin (West Atlantic) and Bantu (Kula 2002):

Root initial	Gloss	Nominalised	Alternation	Gloss
wa:d	'search'	oba:wa:ɗ	b ~ w	'researcher'
fec	'dance'	ope:fec	f ~ p	'dancing'
re:f	'follow'	ote:re:f	r ~ t	'follower'
xa∫	'shoot'	oqa:xaf	x ~ q	'shooter'

(12) Seereer-Siin, West Atlantic (partial pattern) (McLaughlin 2000)

#### (13) Bantu

Verb stem	Nas-Vstem	Alternation	Language	Gloss
leka	<b><sup>n</sup>d</b> eka	l ~ d	Bemba	'I stop'
vevela	o <sup>m</sup> belela	v ~ b	Kwanyama	'dip into food'
reheete	<sup>n</sup> deheete	r ~ d	Kikuyu	' have paid'

In none of these patterns would the initial weakening be thought of a phonological lenition of a root initial consonant. It would be a mistake to assume that in these cases the root-initial position was phonologically weak. Instead, in all these cases, we see that the inherent strength of the initial position is being recruited as the place to expone or reinforce (quasi-)morphological patterns.

Only a phonologically strong position can maintain a (quasi-)morphological pattern of this type, because it is only a strong position that can host a strong ~ weak contrast. This is why cross-linguistically we see morphological patterns of this kind occurring on initial consonants.

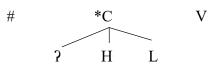
## 4.3 How it working in Neapolitan

It would seem that the initial weakening in Neapolitan is exponed by taking a phonotactic, defined in terms of phonological features, and applying this word-initially so that roots alternate between weak and strong forms.

2016

Beneath in (14) we express the phonotactic using Element Theory (for a modern introduction see Backley 2011).

(14) Illicit onset according to Phonotactic-14



*Phonotactic-14*<sup>2</sup> acts as a ban on an onset, or a C position, hosting |?| (stopness) known as Edge, |H| (noise) known as Noise, and L (nasality and voicing) known as Murmur. This phonotactic targets voiced stops (and affricates) which have all three properties.

It seems that the morphological paradigm operates by arbitrarily banning this combination of elements word-initially, as shown in (14). This creates the weak form of the root:

(16) Initial phonotactic \*[b] > [v] ([varka] *barca* 'boat)



The weak form of the root, seen in its phonological features in (16), must lose its Edge. However, in other morphological paradigms the otherwise illicit combination of elements is reinforced by the following relaxation of the phonotactic:

(17) ONE SAVES ALL condition (to be used in association with Phonotactic-14)

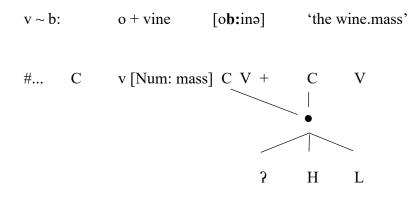
If any of the elements named by *Phonotactic-14* (|?|, |H|, |L|) can branch, the structure is licensed.

This creates the structures shown beneath (18), all of which are licensed by the ONE SAVES ALL condition on phonotactic-14.

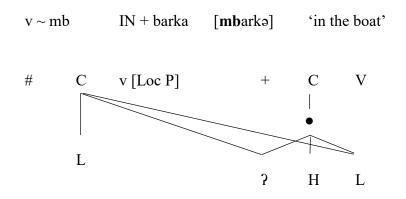
(18) Morphemes interacting with the ONE SAVES ALL condition

(a) Gemination allowing structure to branch (and therefore maintained)

 $<sup>^{2}</sup>$  If the name sounds arbitrary it should do, there is no inherent phonological motivation for phonotactic-14, it is merely a condition which has developed so that the phonology may expone the morphology.



(b) Nasalisation allowing Edge and Murmur to branch

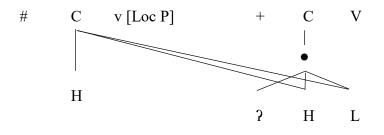


(c) Fricative allowing Noise and Murmur to branch ( $v \sim zb$ )

 $v \sim b$ 

Z + bigna [z**b**in:a]

'escape'



## 5. Conclusion

- Initial weakening in Neapoletan is not lenition, rather it is more similar to what is widely thought of as consonant mutation.
- In Neapolitan any consonant, voiceless or voiced, can occupy the root-initial position depending on the quasi-paradigm.
- The strength and weakness is derived by factors that enable the quality of the initial consonant of the root to support or expone a particular syntactic head, or (quasi-) morpheme: [o-vi:nə] 'the wine (count noun)' [o-b:inə] 'the wine (mass noun)', or reinforce the signaling of the association of a root with a certain morpheme, or the formation of (quasi-)paradigms.
- Initial weakening in Neapolitan bears a role in reinforcing quasi-morphological, leftedge, strong/weak alternations, so...
- ...this quasi-morphological load is borne by a strong position, one which can host a strong ~ weak contrast.
- Crucially, the inherent strength of the initial position can still be taken to be a design property of human language design, that is, it falls inside phonological universal grammar.

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