Dialectal variation of Italian s-voicing as constraint interaction

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Many Italian dialects, such as Lombardian for instance, display intervocalic voicing of the fricative *s*. In some very restricted environments, intervocalic *s*-voicing does not apply. When prefixes ending in a vowel are attached to roots starting with an *s*, this *s* surfaces as voiceless (*a*-[*s*]*ociale* 'asocial'). However, the final *s* of prefixes, such as *dis-*, surfaces as voiced in combination with roots starting in a vowel (as in *di*[*z*]-*onesto* 'dishonest'). At word margins, *s* is usually voiceless in all varieties of Italian.

The Tuscan variety of Italian does not display word-internal intervocalic *s*-voicing. This variety has contrasts such as *ca*[*s*]*a* 'house' vs. *ca*[*ss*]*a* 'cashier', which are *ca*[*z*]*a* / *ca*[*ss*]*a*, respectively, in most other varieties. Nevertheless, Tuscan has intervocalic *s*-voicing when prefixes with a final *s*, as *dis-*, *bis-* and others, are attached to vowel-initial stems (Bertinetto 1999).

In previous analyses of intervocalic *s*-voicing (Nespor & Vogel 1986, Kenstowicz 1995, and others) it was claimed that this voicing of prefix-final *s* is an effect of the same rule or constraint that triggers intervocalic *s*-voicing in other contexts as well.

In particular, Kenstowicz (1995) assumes in his Correspondence-theoretic approach that the lack of voicing of root-initial *s* in combination with a prefix ending in a vowel must be attributed to Output-Output faithfulness of this prefix plus root with the simplex form without the prefix. In this simplex form, the root-initial *s* is at the word margin and accordingly voiceless. Output-Output Faithfulness enforces this voicelessness in the prefixed form as well, while it does not promote voicelessness in prefix-final *s* since prefixes do not have independent forms, which can serve as bases for Output-Output faithfulness.

The most straightforward way to account for the micro-variation of absence versus presence of intervocalic *s*-voicing in Italian dialects is to assume a different ranking of the intervocalic *s*-voicing constraint (*VsV) in the grammars of the different dialects. In Lombardian, the constraint *VsV should rank higher in the hierarchy than the markedness constraint against voiced obstruents (*VObs). If we assume the constraint *VsV to be below *VObs in Tuscan, Kenstowicz' analysis makes the wrong prediction: This ranking also rules out the voicing of prefix-final *s* in forms like *di*[*z*]*onesto* 'dishonest', *bi*[*z*]*avolo* 'great-grandfather' (see tableau ii).

I will argue in this paper that the voicing of prefix-final *s* in Italian is triggered by a different part of the grammar than the constraint against intervocalic voiceless *s*. This instance of voicing is a case of boundary marking: The left edge of the root does not coincide with the left edge of a syllable as it should be in a predominantly suffixing language as Italian. Instead, the final *s* of the prefix interferes as the onset of the first syllable of the root. This mismatch is marked by voicing the segment which causes this misalignment. This claim is supported by the behaviour of the final *s* in the prefix *trans-* in connection with vowel-initial stems. In this environment, the *s* turns out as voiced in northern Italian dialects, even though clearly not in intervocalic position (*tran*[*z*]-*atlantico* 'transatlantic'). Other instances of *s* in a similar environment stay voiceless even in dialects with intervocalic *s*-voicing (*pen*[*s*]*are* 'to think'). Both, the *s* in the prefix *trans-* and that in *dis-*, are syllabified as the onset of the following vowel-initial stem. This is the context in which they are voiced. Thus, a syllable wellformedness constraint (ONSET) triggers the violation of morpho-prosodic edge alignment. Independent evidence for the claim that this is a marking of a misalignment of morphological and prosodic edges is found in the voicing patterns at the left edge of roots in Breton (Krämer 2000).

In the analysis I will follow Łubowicz (1999), formalizing derived environment effects as triggered by a local conjunction of a faithfulness constraint with a markedness constraint. In the case of Italian, the two conjoined constraints are Left-ANCHOR(root, σ) and VO ('syllables have voiced onsets', Grizenhout &

Joppen, 1999). The account of dialectal variation as the reranking of the two above-mentioned constraints can be incorporated into this analysis and makes the right prediction: low ranking of the constraint *VsV 'switches off' intervocalic *s*-voicing in Tuscan, while the voicing of prefix-final *s* with vowel-initial roots still applies.

This analysis supports Prince & Smolensky's (1993) hypothesis that cross-linguistic variation is caused by different rankings of constraints rather than by the assumption of different underlying representations. Furthermore, the cross-dialectal comparison of intervocalic *s*-voicing in Italian gives clear evidence against an analysis in terms of Output-Output correspondence as proposed by Kenstowicz (1995). The alternative approach relying on local constraint conjunction is supported by the data of Italian dialectal variation. With this analysis we can also maintain a parallelist equivalent of 'bracket erasure', that is, morphological boundaries are accessible only in underlying structures rather than in surface representations, contrary to the claim made in Bertinetto (2000). Morphological boundaries do not have a phonetic reflex, and thus should not be incorporated in surface representations.

Example tableaux:

(i.)   Voicing of prefix-final *s* in Tuscan despite lack of intervocalic *s*-voicing

/dis- onesto/	L-ANCHOR&VcdOns	*VObs	*VsV
☞ a. di[.z]#onesto		*	
b. di[.s]#onesto	*!		*
/casa/			
c. ca[z]a		*!	
☞ d. ca[s]a			*

\# indicates the left edge of the root. Reranking of *VObs and *VsV yields outputs (a) and (c) optimal, as in Lombardian.

(ii.)   Failed output-output faithfulness in Tuscan:

/dis- onesto/	Base-Identity	*VObs	*VsV
☹ a. di[.z]#onesto	✓	*!	
☛ b. di[.s]#onesto	✓		*
no base 'di[z]'			

(☹ marks the actual Tuscan output, ☛ marks the wrong winner.)

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