Luigi Burzio Johns Hopkins University burzio@jhu.edu

Italian Participial Morphology and Correspondence Theory*

Abstract. It is argued that word-formation does not utilize a unique base, but rather that multiple lexical relations can be at work simultaneously. In Italian, a number of formations that are clearly based on the past participle, also exhibit direct links with the infinitive, upon which the participle itself is based. This multiplicity of relations can be adequately expressed within the 'parallel' organization of Optimality Theory, in which multiple constraints can all apply simultaneously. I propose in particular that 'surface-to-surface' faithfulness constraints are in general at work across all instances of the same morpheme ('Anti-allomorphy'). Such multiplicity of surface-to-surface dependencies is shown to hold for both stems and affixes.

1. Introduction. In this article I analyze Italian past-participial morphology from the general perspective of Optimality Theory ('OT'; Prince and Smolensky, 1993), and the more specific perspective of Burzio (1996, 1997, 1998a), in which lexical organization rests on the three sets of constraints in (1).

(1)	a.	Input-Output Faithfulness	(IO-F)
	b.	Phonology	(PHON)
	c.	Output-Output Faithfulness	(OO-F)

IO-F (1a) is understood in the standard sense of work in OT, as is (1b), which refers to the structural constraints of the Phonology at large. OO-F (1c) expresses the role of surface-to-surface association among lexical items, as in McCarthy (1995); Benua (1995, 1997), Burzio (1997, 1998a), and Burzio (1994a, b, 1996), where it appears under the name of (Metrical) Consistency, or Anti-Allomorphy. OO-F constraints require identity of the target items with other items with which it is in 'correspondence' (McCarthy, 1995, Benua, 1995, 1997). I take such correspondents to be items with which the target independently shares sound and meaning, so that, for instance, parent is a correspondent for parent-al, though there is the complex question, not addressed here, of whether correspondence should be symmetric, with parent-al also serving as a correspondent to parent. As in Burzio (1996, 1998a), I take OO-F as sufficient to express word-to-word relations, hence dispensing with the traditional notion of 'underlying representation' (UR).

^{*} Material closely related to the present work is presented in Burzio (1998b).

¹ OO-F constraints have been argued to derive the effects of the phonological cycle, as well as some of the cases of 'Non-derived Environment Blocking'. See Burzio (1998a, and reff.).

From this point of view, there will be no reason to expect that word-formation will employ a unique 'base' as in a derivational system. Rather, since there is no limit to the number of constraints that can apply simultaneously in OT, we expect that morphologically complex words could be calculated from multiple bases or 'correspondents' by simultaneous application of multiple sets of OO-F constraints. Indeed, I will argue in this article that, in Italian, certain formations that superficially appear to be 'de-participial' are in fact based on both the past participle and the infinitive simultaneously, as some of the data in (2) already indicate.

(2)	Gloss(Infin)	Infinitive	Participle	-ore Noun	
a.	adapt	adatt-are	adatt- at -o	adatt-at-ore	(≈ partic.)
b.	compress	comprim-ere	compres-s-o	compres-s-ore	(≈partic.)
c.	win	vinc-ere	vin-t-o	vinc-it-ore	(≈both)
d.	ascend	ascend-ere	asce-s-o	ascen-s-ore	(≈ both)
e.	aggress	aggred-ire	aggred-it-o	aggres-s-ore	(≈ neither)

In (a), the agentive noun in -ore, cognate to English -er is transparently related to the participle as is the one in (b). The one in (c), however, has material from both the participle (the t), and the infinitive (the c). Similarly, the one in (d) has the s from the participle and the n from the infinitive, while the one in (e) is dissimilar from both infinitive and participle, and seems explainable only in terms of its correspondence with other -ore nouns, like the one in (b).

2. Metrically-conditioned syncopes. Past participles in Italian exhibit the two types of outcome illustrated for the three different conjugations in (3).

(3)	Infinitive	Participle: non-syncopated	Participle: syncopated
I.	-áre	associ-át-o, gener-át-o	
IIa. Iib.	-ére -ĕre	cad-út-o, sap-út-o vend-út-o, ricev-út-o, ced-út-o	vín-T-o, rí-S-o, discús-S-o
III.	-íre	scolp-íto, inib-ít-o	

With rare exceptions, participles in conjugations I, III are formed by adding to the infinitival stem the sequence $-\vec{V}t$ -, where \vec{V} is a stressed 'thematic' vowel. This morpheme is then followed by gender/ number inflection (-o: MASC.SG). The same is true for the variant (a) of conjugation II, that bears the stressed infinitival affix $-\acute{c}re$. In contrast, in variant (b) of that conjugation, in which stress falls on the stem rather than the inflection, participles vary between the usual $-\vec{V}t$ - and two syncopated outcomes: -t-, and -s-. As argued in DiFabio (1990), such syncopes can be accounted for in terms of Metrical Consistency, a form of OO-F. By removing the suffixal vowel and hence its associated stress, the main stress can fall on the stem, consistently with the infinitive, as

in vincere/vinto. This account explains why participial syncope only occurs in the stemstressed conjugation IIb. The oscillation between syncope and no syncope in that conjugation can be attributed to competition between metrical and segmental OO-F. In the non-syncopating cases, the affix $-\dot{u}t$ - matches other such forms in the lexicon, hence satisfying OO-F relative to those forms. By the same token, one could take the same to be true of -t- or -s-, which would thus also satisfy OO-F. However, I take $-\dot{u}t$ - to be the 'primary' allomorph, because more general, and hence the ranking in (4) to hold.

(4)
$$OO-F/-ut-(primary allomorph) >> OO-F/-t-, -s- (suppletives)$$

Hence the assumption is that it is more important to be faithful to the segmentism of -ut-than to that of -t- or -s-. Now, although Italian allows antepenultimate stress, as in hypothetical *vinc-ut-o, stem stress under such circumstances is precluded by the conclusion, drawn in Burzio (1998a), that outer affixes obey a higher-ranked OO-F than stems because they represent the 'head' of the word, determining its categorial status, as also shown by English vowel shortening, as for instance in satyr-ize, where the stem falls prey to shortening, (compared satyre), but the affix does not. I state this as in (5).

This can be construed as a case of 'positional' faithfulness, in the sense of Beckman (1996), i.e. a case in which the rank of faithfulness constraints is modulated by the type of 'position' they affect. Returning to (3), each sequence -Vt- is the affixal head referred to by (5), and hence relatively immune to re-stressing. Given this, the oscillation of (3IIb) will now follow from taking metrical and segmental OO-F to be unranked with respect to one-another, as in (6).

(6)		METRICAL OO-		SEGMENTAL OO-F	
víncút-o	SYL	-út-	stem	-ut- >>-t-	stem
t-					
a. (🖙) vinc-út-o			*		
b. vínc-ut-o		*			
c. vínc-t-o	*			*	
d. 🔊 vín-t-o				*	*

In (6), 'SYL' stands for all conditions on syllable structure, including those that exclude a complex coda nc in Italian. Given the ranking indeterminacy expressed by the vertical dotted line, candidates (a) and (d) will be co-optimal, while (b) will lose to (a) by the greater resilience of affixes stated in (5), and (c) will lose to (d) due to SYL. The choice

3. Syncope in derivatives. A number of formations from non-syncopated participles exhibit the variation illustrated in the (b-e) pairs in (7). These formations involve the suffix $-\acute{\alpha}re$ of (2) above and suffixes $-i\acute{\alpha}ne$, $-i\acute{\alpha}ne$, $-i\acute{\alpha}ne$, $-i\acute{\alpha}ne$, all of which have transparent English cognates ($-\acute{\alpha}ne$), a variant of $-\acute{\alpha}rie$ (-ory).

(7) Derivatives from non-syncopated participles:

	_	Gloss(Infin)	Infinitive	Participle	Derivatives
-áre	a	generate	gener-áre	gener-át-o	gener-AT-óre
-ére	b	detain	deten-ére	deten-út-o	deten-T-óre
	b'	contain	conten-ére	conten-út-o	conten-IT-óre
-ĕre	c	exceed	eccéd-ere	ecced-út-o	ecces-S-ívo
	c'	sell	vénd-ere	vend-út-o	vend-IT-óre
-íre	d	sculpt	scolp-íre	scolp-ít-o	scul-T-óre
	ď	abolish	abol-íre	abol-ít-o	abol-IT-óre
	e	scan	scand-íre	scand-ít-o	scan-S-ióne
	e'	prepare	imband-íre	imband-ít-o	imband-IT-óre

All cases in the rightmost column in (7) utilize a participial affix, given in upper-case. However, the first member of each pair in (b-e) features a syncopated affix despite the fact that the participle itself does not. This second case of syncope, unlike the first, now concerns all conjugations except the one in -áre of (7a), which I put aside for the moment. Yet the earlier account will extend to these new cases as well, as can be seen in (8).

(8)		Мет	RICAL OO-F	SEGME	ENTAL OO-F
aggred-ít -óre -s-	SYL	-óre	aggred-ít-	-ore	aggred-it->> aggred-s-
a. (1887) àggred-it-óre			*		
b. àggred-ít-ore		*			
c. àggred-s-óre	*				*
d. 🖙 àggres-s-óre					**

In (8), for each type of faithfulness, metrical and segmental, again unranked with respect to one-another, we rank the one for the outer affix, here - \(\delta e \), above that of the stem, here aggred-it-, in accordance with (5) above. Unlike participial affixes, neither óre nor the other derivational suffixes in question have syncopated suppletives -a lexical matter. But the participial suffixes themselves are relevant here as well. With unstressed -ore of (8b) excluded by the inalterability of outer affixes sanctioned by (5) above, and stress clashes excluded by undominated metrical constraints, the participial affix will have to be unstressed, as in any of (a), (c), (d), but excluding (b). Now the candidate in (a) will satisfy segmental OO-F to the primary participial allomorph - t-, but violate metrical OO-F by featuring an unstressed i. Note that -it- is no longer under the scope of (5) here, since it is not the head of the word. In contrast, the syncopated candidates in (c, d) will violate segmental OO-F, but satisfy metrical OO-F -- the raison d'être of all syncopated suppletives. Finally, candidate (c) will lose to (d) due to SYL, which excludes this kind of coda in Italian. Hence candidates (a, d) will be co-optimal. and the alternations of (7d/d'; e/e') will reduce to the one of (3IIb) above. The alternations in (7b/b', c/c') are rather similar. The syncopated variant satisfies metrical OO-F as before, while the non-syncopated variant satisfies segmental OO-F, though only with respect to participial suffix -ti- of the -tire conjugation. OO-F to -tit- of the ére/-ĕre conjugation is in fact violated. This effect is the 'Anti-allomorphy' of Burzio (1996), and the 'Lexical conservatism' of Steriade (1997), describable as the attraction by items within the same general paradigm. So, when forced to deviate from the form út-, the items in (7b',c') adopt the form -it-, independently existing with the items in (7e'), rather than creating a new unstressed allomorph *-ut-, which is thus avoided altogether in the language. This is in fact quite parallel to the borrowing of syncopated affixes -t-, -s- by the items in (7b, c, d, e). These affixes exist in participles only in the ĕre conjugation, as we saw in (3) and are 'imported' from that conjugation here. The various patterns of affixal consistency will be summarized in (13) below. The syncope occurring in the derivatives in (7) is thus to avoid re-stressing segmental material in the stem, and thus just like the syncope occurring in the participles in (3). The latter occurred only with - ~e verbs because only those have stressed infinitival stems. The

syncope of the derivatives is more general because all conjugations have stressed participial stems. The only conjugation that is altogether immune to syncope is the first, in -áre. Its immunity to segmental allomorphy is more general, however, as shown by the comparisons in (9).

(9)	I.	manco/manchiamo	[k]	I-am-missing/we-are-missing'
		lancio/lanciamo	[č]	I-launch/we-launch'
		volo/ voliamo	[1], [o]	I-fly/we-fly'
		taglio/tagliamo	[λ]	I-cut/we-cut'
		suono/suoniamo	[wo]	I-sound/we-sound'
	IIa.	vin c o/vinciamo	[k/č]	I-win/we-win'
	IIb.	vuole/vogliamo	$[o/wo], 1/\lambda$	he-wants/we-want'
	III.	fuggo/fuggiamo	[gg/ǧǧ]	I-flee/we-flee'

As shown in (9), conjugations IIa,b, and III each exhibit segmental alternations of various sorts beside syncope, specifically palatalizations and diphthongizations, while conjugation I does not, each stem maintaining an invariant form. To account for this (and similar resistance to allomorphy by this conjugation in other Romance languages), it seems necessary to single out this conjugation in terms of a higher-ranked (segmental) OO-F, a fact attributed in Burzio (1997) to the much larger size of this conjugation compared with the others.

4. Syncope revoked. Participial derivatives can deviate from their participial bases not only in being syncopated unlike their participles, as shown in (7) above, but also in the opposite way, as shown in (10).

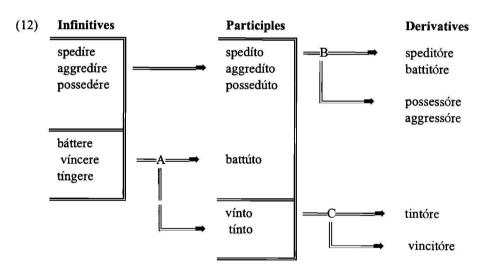
(10)	Gloss(Infin)	Infinitive	Participle	Derivatives
a.	convince	convinc-ere	convín-T-o	cònvin-Z-ióne
a'.	win	vinc-ere	vín-T-o	vìnc-IT-óre
b.	add	aggiúng-ere	aggiún-T-o	àggiun-Z-ióne raccògl-IT-óre
b'.	collect	raccógli-ere	raccól-T-o	
c.	disperse	dispérd-ere	dispér-S-o	disper-S-ióne
c'.	lose	pérd-ere	pér-S-o	pèrd-IZ-ióne

In (10), the first member of each pair of derivatives maintains the segmentism of its participle, which is syncopated. This is putting aside the assibilation that affects t before i in hiatus, yielding t^{S} (orth. z). The second member, however, does not maintain that segmentism, utilizing instead a non-syncopated participial affix -it- ($/-it^{S}$ -). Therefore, in participle-derivative pairs, syncope gives rise to four patterns, by being present in either participle or derivative, neither one, or both. The variation in (10) can again be reduced to the familiar tension between metrical and segmental faithfulness, as shown

in (11).

(11)	METRICAL OO-F		SEGMENTAL OO-F	
víntóre	affix	stem	affix	stem
a. (vint-óre		*		
b. vínt-ore	*			
c. 🐯 vìnC-IT-óre				*

Candidate (b) in (11) is excluded for the same reasons as the one in (8) above: outermost affixes do not re-stress, as mandated by (5) above. Candidate (a) violates metrical OO-F to the participle by de-stressing the stem (no stress-clashes), while candidate (c) satisfies metrical OO-F thanks to the inserted syllable, which, however, causes a violation of segmental OO-F. Hence candidates (a, c) are co-optimal as in previous cases and the choice is made again lexically, whence the variation in (10). I turn to the nature of the inserted material shortly. The diagram in (12) recapitulates the infinitive-participle and participle-derivative relations we have so far seen.



In (12), the infinitives in the lower box are in -œe, and their participles bifurcate at point A into syncopated and not. The infinitives in the upper box are from other conjugations, and their participles do not syncopate, as we saw. In going from non-syncopated participles (upper box) to their derivatives, there is a bifurcation at point B, into -again - syncopated and not. Similarly, in going from syncopated participles to their derivatives, there is also a bifurcation into syncopated and not, at point C. I have argued that the three bifurcations in (12) are all of the same nature: the upper branch maintains the segmentism of the stem, while the lower one avoids re-stressing the stem.

Let us now turn to the segmental material inserted in cases like (11c), given in uppercase. The sequence -it- is clearly the participial affix of other cases, indigenous to the third conjugation, but adopted in its unstressed variant by other conjugations as well, thus limiting metrical allomorphy to -it-, -it-, and avoiding unstressed -ut- as noted. (Recall that unstressed -it- becomes possible when further derivational affixes follow, thus demoting it from 'head'). The overall distributional pattern of participial affixes is as reconstructed in (13).

(13)	-ĕre	tín-t-o opprés-s-o batt-út-o vín-t-o	tin-T-ÓRE ↓	òppres-S-SÓRE ↓	bàtt-IT-ÓRE vìnc-IT-ÓRE
	-ére	pòssed-út-o cònten-út-o	ţ	pòsses-S-SÓRE ↓	↑ cònten-IT-ÓRE
	-íre	scolp-ít-o àggred-ít-o sped-ít-o	scul-T-ÓRE	àggres-S-SÓRE	↑ spèd-IT-ÓRE

The -ĕre conjugation has syncopated participles like tinto and oppresso, which give syncopated derivatives like tintore and oppressore by segmental faithfulness. The other two conjugations only have non-syncopated participles but these can still give syncopated derivatives by metrical faithfulness. When the segmentism of these cases thus breaks away from that of their participle, it falls in with the affixal segmentism -tore, -s-ore that independently exists, as indicated by the downward arrows. At the same time, other derivatives from -to participles are segmentally consistent with those participles rather than being syncopated, yielding affixal sequences -it-ore, -iz-ione, -itivo etc. As indicated by the upward arrows in (13), these sequences are utilized by derivatives of participles in -út- from the -ére and -ĕre conjugations, as an alternative to the syncopes, thus altogether avoiding unstressed -ut-. Derivatives of syncopated participles like vinto, whose segmentism breaks away from the participle for metrical reasons, also find this independently available segmentism well-suited, whence vinc-itore, etc. Hence affixal correspondence/ faithfulness is pervasive: whenever affixal material is driven into allomorphy, recourse is had to independently existing patterns, even if this crosses boundaries between the conjugations, otherwise segregated systems by definition.

This leaves us with the c of vinC-it-ore, present in the derivative in (10a') despite its absence in the participle. The source for it is obviously the infinitive vinC-ere, revealing that both participle and infinitive simultaneously serve as bases for the derivatives.

Similar considerations hold for (10b') raccoGL-it-ore ($gl = [\lambda]$), and (10c') perD-iz-ione. Although the participle is the primary base, when the derivative strays from participial segmentism under compulsion from metrical OO-F, the infinitival segmentism comes in as next best, revealing the multiple correspondence.

Links with the infinitive are revealed as well by cases like (14).

(14)	Gloss(Inf.)	Infinitive	Participle	Derivatives
a.	ascend	ascénd-ere	ascé-s-o	àsCEN-s-óre
b.	ignite	accénd-ere	accé-s-o	àcCEN-s-ióne
c.	apprehend	apprénd-ere	appré-s-o	àpPREN-s-ívo
d.	defend	difénd-ere	difé-s-o	dìFEN-s-óre

In (14), the n of the infinitive is lost in the participle, but is present again in the derivatives. This effect can be interpreted as follows. The stress of the participle is lost in the derivatives due to the ban on stress clashes. However, the heavy syllables of the derivatives (in upper-case) make it possible to maintain some prosodic prominence despite the lack of stress, and thus better satisfy some kind of prosodic OO-F to the participle. This of course is at the expense of segmental OO-F. The question now is why is the n lost in the participle in the first place. The answer is that (as argued in Burzio, 1998a) morphological operations in general give rise to 'emergence of the unmarked' effects, as has been shown for reduplication in McCarthy and Prince (1994). Whenever OO-F is lower-ranked than IO-F, as would seem to be the case here, derived words (calculated by OO-F) will feature relatively less marked structures than underived ones (calculated by IO-F), another case in point being English vowel length, which falls prey to markedness only in derived environments, e.g. vitamin/divinity (see Burzio, 1998a). Hence, in the formation of the participles in (14), the closed syllable turns into a less marked open one, a change that does not affect the preservation of the stress, since Italian allows stress on open penultimates. However, in the formation of the derivative, participial stress is lost, and prosodic prominence can only be maintained by making the syllable heavy again.2 The point is that, when extra material is needed, it is the infinitive, rather than some general epenthetic process that supplies it, both in (11) and

² Since in (14) the derivatives violate segmental faithfulness to the participle for the sake of some prosodic faithfulness, and since we know this in general to be an even trade-off, we will expect the opposite outcome as well. The pattern in (i) confirms this expectation.

(i)	Infinitive	Participle	Derivative
	diffónd-ere 'diffuse'	diffú-s-o	dìffu-s-óre

In (i), and similarly with other verbs based on *fond-ere* 'fuse', the derivative is segmentally, rather than prosodically, faithful to the participle.

in (14), revealing the *double* correspondence of the derivatives, with both the participle and the infinitive.

In sum, derivatives whose participial base is syncopated vary between maintaining the syncopated form of the participle and revoking the syncope by inserting extra material. Such variation reduces to the usual tension between metrical and segmental OO-F, resolved lexically. The nature of the material inserted reveals a cross-derivational relationship to other derivatives, and a trans-derivational relationship to the infinitive.

5. Conclusion. Participial morphology in Italian varies between a non-syncopated stressed form $-\sqrt[r]{t}$ - and two syncopated forms -t-, -s-. The pattern of variation reveals a complex network of relations among lexical items which defies both traditional work based on sequential derivations, as well as work that utilizes OO-F within OT more conservatively than in the present work, by attributing to morphologically complex words unique bases. What the above evidence suggests is that words can in principle influence each-other's sound structures whenever they are independently similar in content and regardless of whether the similarity concerns stem or affixes. The question that this raises, important but beyond the scope of this article, is of course how to determine from principle the weight that each relation holds (i.e. the rank of OO-F that it imposes) in the calculation of sound structure.

Beside the relations discussed above, other similar ones appear to exist as well. One is a relation between participles and preterits. Like the participles, preterits of $-\check{\alpha}re$ verbs vary between syncopated and not, though they only syncopate in -s-, as in $v\acute{m}c$ - $ere/v\acute{m}$ -s-i 'to-win/ I-won', versus non-syncopating $v\acute{e}nd$ -ere/vend- $e\acute{e}(tt)$ -i 'to-sell/ I-sold'. As with the participle, syncope in the preterit maintains the stem stress of the infinitive, and is thus amenable to the familiar analysis. Interestingly, while the variation in the preterit is in itself unpredictable, like that of the participle, the correlation within participle-preterit pairs is near-perfect, as shown in (15), revealing OO-F at work within such pairs.

(15)	Gloss(Inf.)	Infinitive	Participle	Preterit
a.	hide	nascónd-ere	nascós-T-o	nascó-S-i
a'.	sell	vénd-ere	vend-út-o	vend-é(tt)-i
b.	write	scrív-ere	scrít-T-o	scrís-S-i
b'.	receive	ricév-ere	ricev-út-o	ricev-é(tt)-i
c.	laugh	ríd-ere	rí-S-o	rí-S-i
c'.	yield	céd-ere	ced-út-o	ced-é(tt)-i
d.	put	métt-ere	més-S-o	mí-S-i
d'.	beat	bátt-ere	batt-út-o	batt-é(tt)-i
e.	discuss	discút-ere	discús-S-o	discús-S-i.
e'.	repeat	ripét-ere	ripet-út-o	ripet-é(tt)-I

f.	oppress	opprím-ere	opprés-S-o	opprés-S-i.
f'.	press	prém-ere	prem-út-o	prem-é(tt)-i

Another relation appears to exist among derivatives of the same participle. We have seen that derivatives from non-syncopated participles may or may not syncopate. However, if one does, all do, as shown by the contrast in (16).

(16)	Gloss(Inf.)	Partic.	Derivatives
a.	send	spedito	sped-it-ore, sped-iz-ione, sped-it-ivo
b.	aggress	aggredito	aggres-S-ore, aggres-S-ione, aggres-S-ivo

Furthermore, we have seen that syncope varies between -t- and -s-, rather unpredictably. However, the choice is completely consistent across derivatives of the same participle, as shown by (17) and (16b).

(17)	Gloss(Inf.)	Partic.	Derivatives
a.	adhere	aderito	ade-S-ore, ade-S-ione, ade-S-ivo
b.	assert	asserito	asser-T-ore, asser-Z-ione, asser-T-ivo

These facts reveal the presence of OO-F across derivatives. The overall network of lexical links thus identified is summarized in (18).

(18) Network of correspondences:

- a. Derivatives of the same participle are cross-linked: (16), (17)
- b. They are linked to both participle and infinitive: (10)-(11), (14).
- c. Participle and preterit of the same verb are cross-linked: (15).
- d. Derivatives of different verbs are cross linked: (12).

References

- Beckman, J. (1996) *Positional Faithfulness*, PhD Dissertation, University of Massachusetts, Amherst.
- Benua, L. (1995) "Identity Effects in Morphological Truncation," in Jill Beckman, Laura Walsh Dickey and Suzanne Urbanczyk, eds. University of Massachusetts Occasional Papers in Linguistics 18: Papers in Optimality Theory, Amherst: GLSA.
- Benua, L. (1997) Transderivational Identity: Phonological Relations between Words, PhD Dissertation, U. Mass. Amherst.
- Burzio, L. (1994a) Principles of English Stress, Cambridge University Press.
- Burzio, L. (1994b) "Metrical Consistency," in E.S. Ristad, ed., Language Computations, American Mathematical Society, Providence RI.

- Burzio, L. (1996) 'Surface Constraints versus Underlying Representation,' in Durand, Jacques & Bernard Laks, eds. *Current Trends in Phonology: Models and Methods*. European Studies Research Institute, University of Salford Publications (123-141).
- Burzio, L. (1997) 'Strength in Numbers', in V.Miglio and B. Morén, eds. University of Maryland Working Papers in Linguistics 5 (1997): Selected phonology papers from H-O-T 97, 27-52.
- Burzio, L. (1998a) 'Cycles, Non-Derived-Environment Blocking, and Correspondence,' ms. Johns Hopkins University. To appear in Joost Dekkers, Frank van der Leeuw and Jeroen van de Weijer, eds. Optimality Theory: Syntax, Phonology, and Acquisition. Oxford University Press.
- Burzio, L. (1998b) 'Multiple Correspondence', Lingua 103, 000-000
- DiFabio, E. (1990) The Morphology of the Verbal Infix /-isk-/ in Italian and in Romance." Doctoral Dissertation, Harvard.
- McCarthy, J. (1995) "Extensions of Faithfulness: Rotuman Revisited," ms. U.Mass, Amherst.
- McCarthy, J. and A. Prince (1994) "The Emergence of the Unmarked: Optimality in Prosodic Morphology," in Mercè Gonzàlez, ed. *Proceedings of the North East Linguistic Society 24*. Amherst, MA: Graduate Linguistic Student Association. 333-379.
- Prince, A. and P. Smolensky (1993) Optimality Theory: Constraint Interaction in Generative Grammar, ms., Rutgers University, New Brunswick, and University of Colorado, Boulder. To appear, MIT Press.
- Steriade, D. (1997) 'Lexical conservatism' in SICOL, 1997: Linguistics in the Morning Calm, Hanshin, Seoul, Korea.