

## An Optimality Theoretical Account of Full and Partial Identity of Forms

In this paper I present an OT account of full and partial identity of forms (e.g., paradigmatic syncretism and cases in which forms share the same morpheme), and propose the ranking schema output-to-output correspondence constraints (OOCs) >> constraints matching morphosyntactic features with morpho-phonological forms (CFFs). I show this account has advantages over rule-based accounts such as feature impoverishment-plus-feature insertion (Imp-Ins) (Noyer 1998), rules of referral (RoRs) (Zwicky 1985, Stump 1993), and the Right-hand Headed Rule (RHR) (Williams 1981) in that the constraint-based mechanism uniformly accounts for both full and partial identity of forms.

**Paradigmatic Syncretism:** The Latin paradigm in (1) is a case of Divergent Bidirectional Syncretism (DBS) (Baerman 2004). Nominative singular (Nom Sg) of default neuter nouns syncretizes with accusative singular (Acc Sg) by taking *-um* as its exponent, i.e., a less marked feature takes the form of a more marked feature, contrary to the tenet of Imp-Ins that Imp-Ins always inserts the form of a less marked feature into the cell of a more marked feature. By contrast, Acc Sg of nouns like *vulg* syncretizes with Nom Sg by taking *-us* as its exponent.

To account for the Latin case of DBS in OT, I propose two crucial OOCs in (2) and (3) which rank higher than Nom Sg: *-us* and Acc Sg: *-um*, two CFFs (Yip 1998, MacBride 2004). Assume the input is composed of the lexeme BELL and Nom Sg. OOC (2) rules out *bell-us* because /m/ of *-um* (Acc Sg base) does not correspond to /s/ of *-us* w.r.t. to [voice]. *bell-um* wins out though it violates Nom Sg: *-us*. See Tableau (4). Similarly, assume the input is composed of VULG and Acc Sg. OOC (3) rules out *vulg-um* because /s/ of *-us* (Nom Sg base) does not correspond to /m/ of *-um* w.r.t. [voice]. *vulg-us* wins out though it violates Acc Sg: *-um*. OOCs like (2)-(3) have the same effect as RoRs such as “Nom Sg in neuter = Acc Sg” and “Acc Sg in *vulgus*, *pelagus*, and *vi:rus* = Nom Sg” (Baerman 2004:816) in that one morphosyntactic feature set fully copies the form of the other (base) (cf. Noyer’s (1998) understanding of a RoR).

**Partial Identity of Forms:** I show OOCs >> CFFs can also account for partial identity of forms. Pinker (1998) observes that English words such as *workman* and *snowman* have the irregular plural inflection *X-men* while *Walkman* ‘a personal stereo’ doesn’t. Based on the RHR, Pinker argues that the plural form of *Walkman* is *Walkmans* instead of \**Walkmen* because something (let’s say “X”) prevents *Walkman* from inheriting its way of inflection from its rightmost morpheme *-man*. See (5). Pinker’s account leaves two questions unaddressed: (i) It is not clear what this “something” or X refers to. (ii) It is not clear why this X stands in between N’s in cases like *Walkman*.

I organize words including *workman* and *snowman*, with both the morpheme *-man* (/mæn/ underlyingly) and the sense of “human appearance” into one inflectional class (Aronoff 1994) in that they decline in the same way to denote [+pl]. Let’s call this class “*man-class*”. To account for *snowmen* (vs. \**snowmans*) and *Walkmans* (vs. \**Walkmen*), I propose a crucial OOC in (6), which ranks higher than [+pl]: *-z*. Assume the input is composed of SNOWMAN or WALKMAN and [+pl]. OOC (6) rules out *snowmans* because /ɛ/ of *men* (base) does not correspond to /æ/ of *snowmans* (I assume the vowel [æ] is not reduced at this level) w.r.t. [vowel height]. *snowmen* wins out though it violates [+pl]: *-z*. See Tableau (7). The winning output *Walkmans* does not violate OOC (6) because WALKMAN is not a *man-class* noun. [+pl]: *-z* rules out *walkmen*, one of the output candidates.

This analysis captures the observation that the plural form of *man* is unpredictable while it is a productive process in which plural forms of *man-class* nouns copy the plural form of *man*. A RoR which connects two distinct morphosyntactic feature sets sharing one fully identical form is incapable of accounting for partial identity of forms.

(1) Latin second declension (Baerman 2004:816)

	DEFAULT NEUTER	DEFAULT MASCULINE	ACCUSATIVE IN <i>-us</i>
	‘war’	‘slave’	‘crowd’
NOM SG	<b>bell-um</b>	serv-us	vulg-us
ACC SG	bell-um	serv-um	<b>vulg-us</b>

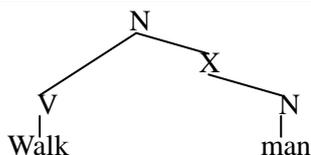
(2) IDENT (Acc Sg (Base), Nom Sg / Default Neuter) (voice): Correspondent segments of a base Acc Sg and a Nom Sg in the context of Default Neuter have identical values for feature [voice].

(3) IDENT (Nom Sg (Base), Acc Sg / *vulg*) (voice): Correspondent segments of a base Nom Sg and an Acc Sg in the context of (a class of nouns including) *vulg* have identical values for feature [voice].

(4) BELL

Input: [BELL, Default Neuter] [Nom Sg] <i>bell</i> Base: [Acc Sg] <i>um</i>	IDENT (Acc Sg (Base), Nom Sg / Default Neuter) (voice)	Nom Sg: <i>-us</i>
→ a. [BELL, Default Neuter][Nom Sg] <i>bell</i> <i>um</i>		*
b. [BELL, Default Neuter][Nom Sg] <i>bell</i> <i>us</i>	*!	

(5)



(6) IDENT (<MAN, *man*-class, [+pl]>, <N, *man*-class, [+pl]>) (vowel height): Correspondent segments of <MAN, *man*-class, [+pl]> and <N, *man*-class, [+pl]> have identical values for feature [vowel height].

(7) SNOWMAN

Input: [SNOWMAN, <i>man</i> -class], [+pl] <i>snowman</i> Base: [MAN, <i>man</i> -class], [+pl]: <i>men</i>	IDENT (<MAN, <i>man</i> -class, [+pl]>, <N, <i>man</i> -class, [+pl]>) (vowel height)	[+pl]: -z
→ a. [SNOWMAN, <i>man</i> -class], [+pl] <i>snowmen</i>		*
b. [SNOWMAN, <i>man</i> -class], [+pl] <i>snowmans</i>	*!	

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