Language Particularity in Optimality Theory

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1. The Lexicon as the Source of Language Particular Variation

(1) **Standard English negative auxiliary inversion:**

a. *Aren't you/we/they going?* ∼ *You/we/they aren't going.*

b. *Isn't she/he going?* ∼ *She/he isn't going.*

c. *Aren't/*ain't/*amn't I going?* ∼ **I aren't going.*

(2) *aren't*$_1$: $\begin{bmatrix} \text{NEG} & + \\ \ldots & \end{bmatrix}$ *aren't*$_2$: $\begin{bmatrix} \text{PERS} & 1 \\ \text{NUM} & \text{SG} \\ \text{NEG} & + \\ \text{INV} & + \end{bmatrix}$

Why does *aren't* appear in the inverted position in (1) rather than *isn't*? Why does a movement paradox occur in Scots (3) but not in Hiberno-English (4)?

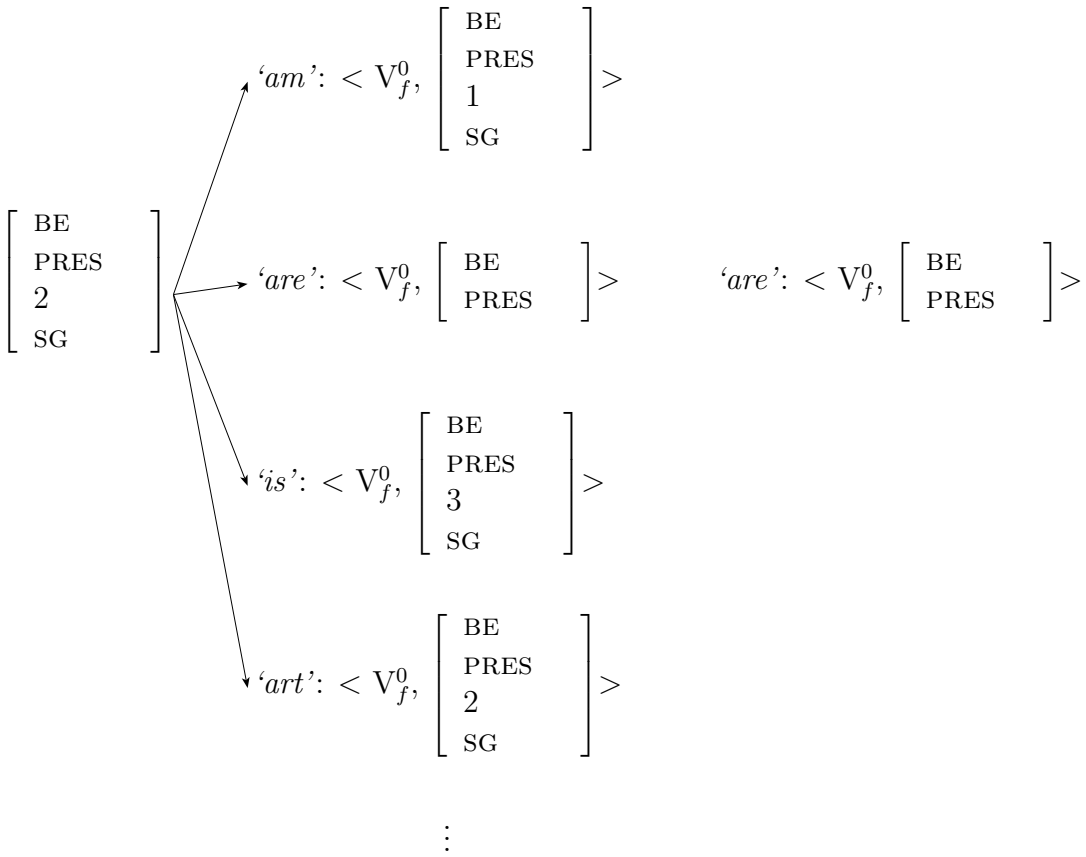
(3) Scots: *Amn't I going? *I amn't going.*

(4) Hiberno-English: *Amn't I going? I amn't going.*

2. The Lexicon as the Result of Language-Particular Variation (Reranking)

(5) **OT Morphosyntactic Framework**:

(a) INPUT CANDIDATES OUTPUT



(b) GEN: INPUT⟶ CANDIDATES

(c) EVAL: CANDIDATES ⟶ OUTPUT

(6) **Evaluation of candidates:**
Given a language-particular strict dominance ranking of the Constraint Set, the optimal/most harmonic/least marked candidate (= the output for a given input) is one that best satisfies the top ranked constraint on which it differs from its competitors.

i. GEN must be universal ('richness of the base').

ii. The input must be recoverable from the output and the output itself must contain the overt perceptible data (learnability). (Kuhn 1999)

If both the input and the candidate set are universal, where is the lexicon?

- Systematic lexical properties are derived by constraint ranking. Unsystematic properties must be specified as language-particular properties.

- Some universal constraint families are indexed to language-particular word classes or morphemes, such as the family of morphological alignment constraints (McCarthy and Prince 1993) and morphologically indexed faithfulness constraints (Urbanczyk 1995, 1996; Benua 1995, 1996; Fukazawa 1997).

- The lexicon of English is a sampling of the (systematic) inventory (Smolensky, 1996), with which unsystematic properties such as language-particular form-meaning correspondences are associated. In (5a) the orthographic labels in single quotes (*'am', 'are',* etc.) represent the pronunciations of various auxiliaries, which are English-particular lexical associations.

(7) Constraints:
FAITHFULNESS: $\text{FAITH}^{\text{P \& N}}$
MARKEDNESS: *PL, *SG and *2, *1, *3

(8) $\text{*PL,*SG,*2,*1,*3} \gg \text{FAITH}^{\text{P \& N}}_{be}$

(9) West and East Midlands (Cheshire, Edwards, and Whittle, 1993: 80):

	sg	pl
1	were	were
2	were	were
3	were	were

I were singing. So were John. Mary weren't singing.

(10) $\text{*PL,*2} \gg \text{FAITH}^{\text{P \& N}}_{be} \gg \text{*SG,*1,*3}$

Standard English:

	sg	pl
1	am	are
2	are	are
3	is	are

(11) input: [BE PRES 1 SG]

	*PL,*2	$\text{FAITH}^{\text{P \& N}}_{be}$	*SG,*1,*3
☞ 'am': [BE PRES 1 SG]			**
'is': [BE PRES 3 SG]		*!	**
'are': [BE PRES]		*!	
'art': [BE PRES 2 SG]	*!	*	*

(12) input: [BE PRES 2 SG]

	*PL,*2	$\text{FAITH}^{\text{P \& N}}_{be}$	*SG,*1,*3
'am': [BE PRES 1 SG]		*	*!*
'is': [BE PRES 3 SG]		*	*!*
☞ 'are': [BE PRES]		*	
'art': [BE PRES 2 SG]	*!		*

(13) $*\text{PL},*2,*1 \gg \text{FAITH}^{\text{P}\,\&\,\text{N}}_{be} \gg *\text{SG},*3$

Southern and East Midland Counties (Orton et al., 1962–71)

	sg	pl
1	are	are
2	are	are
3	is	are

I are. Are I?

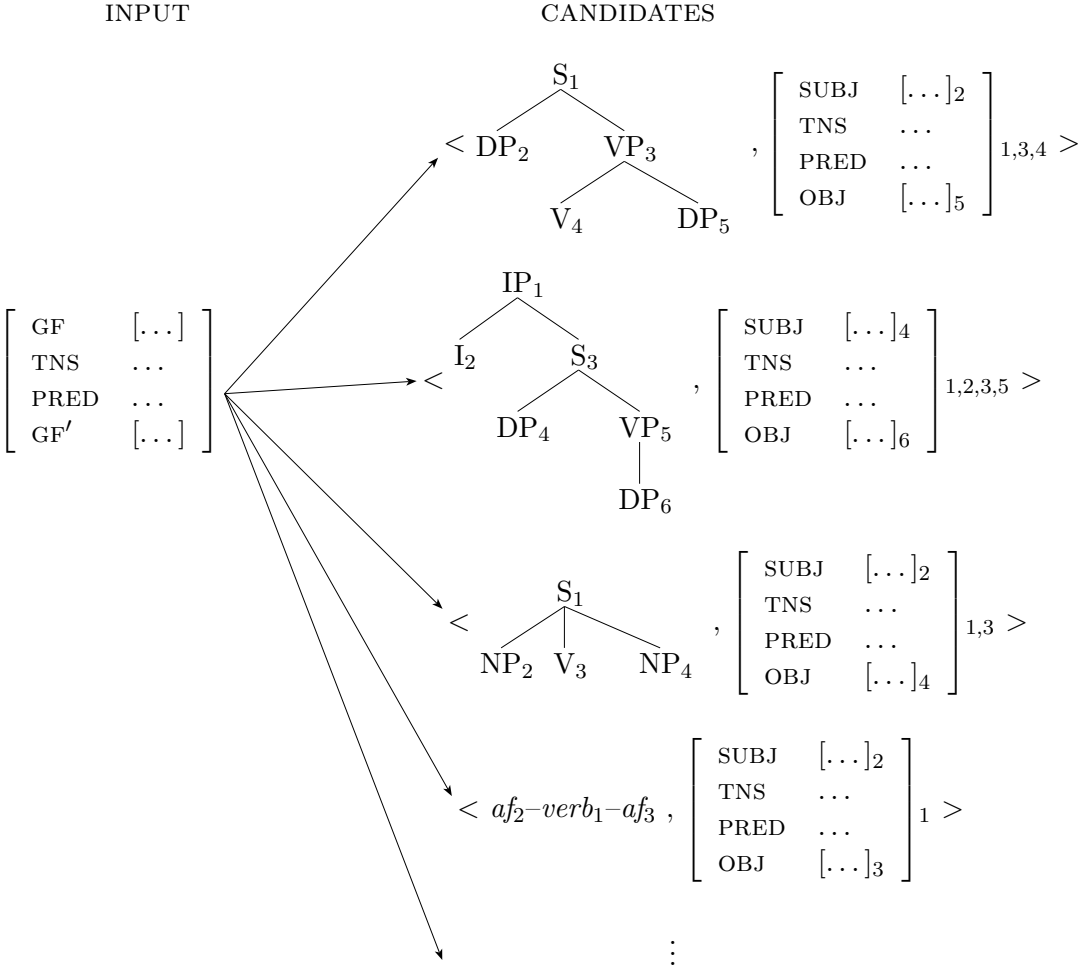
(14) $*\text{PL},*1 \gg \text{FAITH}^{\text{P}\,\&\,\text{N}}_{be} \gg *\text{SG},*2,*3$

Somerset (Ihalainen 1991: 107–8):

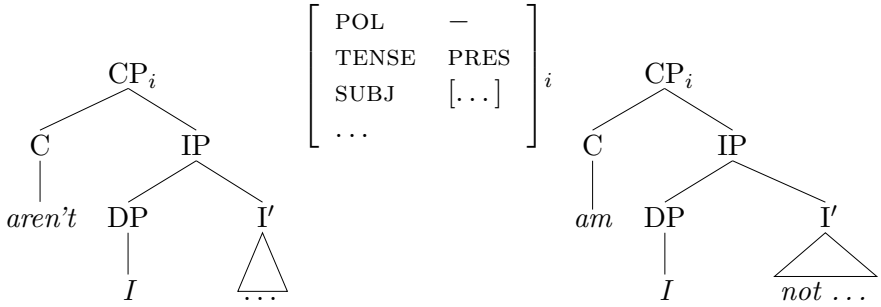
	sg	pl
1	be	be
2	art	be
3	is	be

The overall structure of this framework for morphosyntax (5) applies as well to larger syntactic structures (Bresnan, in press a; Choi, 1999; Kuhn, 1999; Lee, 1999; Sells, 1998; Asudeh, 1999, Broadwell 1999):

(15) **OT-LFG Syntactic Framework**



(16) Words compete with phrases:



3. Negative Auxiliary Inversion

standard negation (Payne 1985): Crosslinguistically, standard negation is overwhelmingly a verbal category (Payne 1985): it occurs as an invariant negative adverb, clitic, or particle associated with VPs and verbs in various clausal positions, as a negative verbal inflection, or as a negative verb root which negates its complement.

(17) FAITH^{NEG}: Sentence scope negation in the input should be preserved in the output.

(18) MARKEDNESS:

(i) Avoid a syntactic negator in various positions (VP, auxiliary, inverted verb):
*SYNTACTIC_NEGATOR(VP), *SYNTACTIC_NEGATOR(AUXILIARY), *SYNTACTIC_NEGATOR(INVERTED-VERB).

(ii) Avoid a negative inflection:
*INFLECTIONAL_NEGATOR(VERB), *INFLECTIONAL_NEGATOR(AUXILIARY)

(iii) Avoid a negative lexical verb root: *LEXICAL_NEGATOR(VERB).

Hawick Scots (Brown, 1991):

(19) a. ? *She couldnae have told him, but she did.*
('It was impossible for her to have told him, but she did tell him.')

b. *She could no have told him, but she did.*
('It was possible for her not to have told him, but she did tell him.')

(20) a. **Isnae he coming?* (Hawick Scots—Brown 1991: 80)

b. **Couldnae he work?*

c. **Could he nae work?*

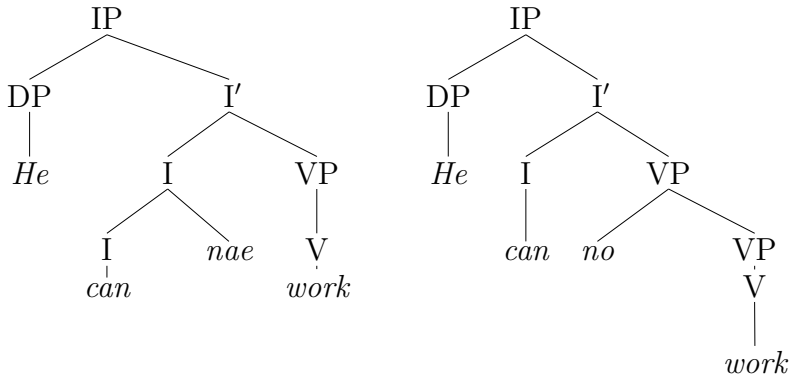
d. *Could he no work?*

(21) a. *Couldn't he work?*

b. **He couldn't work.*

***nae, no* in Hawick Scots** (Brown, 1991):

(22)



(23) Scots:
$\ldots$, *SYN-NEG(INV) $\gg$ FAITH$^{\text{NEG}}$ $\gg$ *SYN-NEG(VP), *INFL-NEG(AUX) $\gg$ *SYN-NEG(AUX)

(24) Scots:

		*SYN-NEG(INV)	FAITH^{NEG}	*SYN-NEG(VP), *INFL-NEG(AUX)	*SYN-NEG(AUX)
	input: ¬(POSS(work(he)))				
	he couldn't work			*!	
☞	*he couldnae work*				*
	he could no work			*!	
	input: Q(¬(POSS(work(he))))				
☞	*couldn't he work?*			*	
	couldnae he work?	*!			
☞	*could he no work?*			*	

Indications of markedness: On this account what explains the movement paradox—

(25) Scots:
*Amn't I going? *I amn't going.*
**Amnae I going? I amnae going.*

—is the relative markedness of the negative auxiliary inflection *-n't*, compared to the syntactic I negator *nae*.

i. According to Miller (1993), the contracted form *-n't* is preferred by educated speakers of Scots in formal contexts.

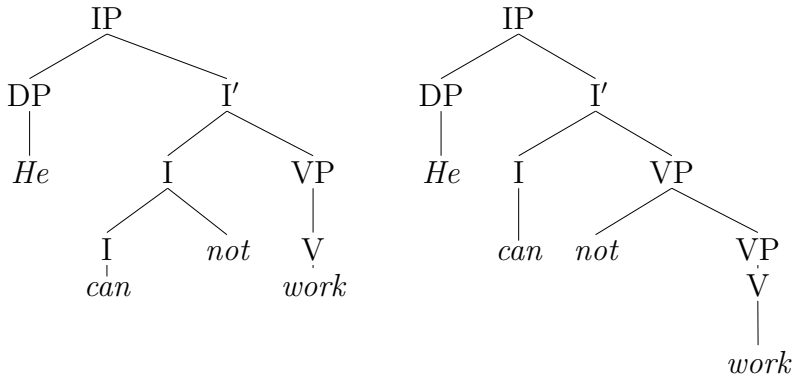
ii. In Scots it is also lexically restricted compared to *nae*, as shown in (26) from Brown's (1991: 93) study:

cannae, mustnae, willnae, couldnae, ...
can't, *mustn't, *won't, couldn't, ...

The relative markedness of this form is captured in the constraint ranking in (24).

How does Standard English differ from Scots on this theory? Where Scots pronounces SYNTACTIC_NEGATOR(AUX) (*nae*) differently from SYNTACTIC_NEGATOR(VP) (*no*), English pronounces both as *not*:

(26)



The ambiguity of *not* in English has been noted by various researchers (Payne, 1985).

(27) a. *He* [*could not*] *have been working.* SYN-NEG(AUX)

b. *He could* [*not have been working*]. SYN-NEG(VP)

(28) a. *He cannot have been working.* ¬(POSS(work(he)))

b. *He can (just/simply) not have been working.* POSS(¬(work(he)))

Where the Scots INFL-NEG(AUX) *-n't* is a relatively marked form, the same form in Standard English is among the least marked expressions of sentence negation, an alternative to SYN-NEG(AUX) in declaratives—

(29) a. *He can't have been working.* ¬(POSS(work(he)))

b. *He cannot have been working.* ¬(POSS(work(he)))

c. *He can not have been working.* POSS(¬work(he))

—and strongly preferred to SYN-NEG(VP) in interrogatives. In spoken Standard English examples like (30c) sound very formal (they are termed "stilted and unnatural" by Palmer and Blandford (1969: 293)). The more natural expression of wide-scope negation in interrogatives is *-n't* (30a):

(30) a. *Can't he have been working?* Q(¬(POSS(work(he))))

b. *Can he not have been working?* Q(POSS(¬(work(he))))

c. % *Can he not have been working?* Q(¬(POSS(work(he))))

(31) Standard English:
..., *SYN-NEG(INV) ≫ FAITH^{NEG} ≫ *SYN-NEG(VP) ≫ *SYN-NEG(AUX), *INFL-NEG(AUX)

(32) Spoken Standard English:

		*SYN-NEG(INV)	FAITH^{NEG}	*SYN-NEG(VP)	*SYN-NEG(AUX), *INFL-NEG(AUX)
	input: ¬(POSS(work(he)))				
☞	*he can't have been working*				*
☞	*he cannot have been working*				*
	he can not have been working			*!	
	input: Q(¬(POSS(work(he))))				
☞	*can't he have been working?*				*
	cannot he have been working?	*!			
	can he not have been working?			*!	

The present theory explains why it is in Scots that *-n't* appears only where *nae* cannot appear, and why there is a contrast in the scope of NEG-VP in Scots and Standard English. It can also easily explain the movement-paradox contrast between Scots (*Amn't I going?* ∼ **I amn't going*) and Hiberno-English (*Amn't I going?* ∼ *I amn't going*): Scots rejects the use of *-n't* in declaratives, while Hiberno-English allows it. The solution is simply that Hiberno-English has the same constraint ranking as Standard English (31). This is a quite plausible approach because in Hiberno-English, unlike Scots, both the SYN-NEG(AUX) and INFL-NEG(AUX) forms of negation are shared with Standard English.

The Standard English gap: **I amn't; *Amn't I?*

(Various explanations for this lexical gap have been proposed; Dixon (1982), for example, proposes avoidance of the phonologically marked *mn* sequence. Here we will simply assume a high-ranking constraint **amn't* which penalizes this candidate, for whatever reason.)

If no other changes are made to the constraint ranking for Standard English:

(33) Possible effect of a lexical gap (I):

		**amn't*	**SYN-NEG(INV)*	*FAITH^{NEG}*	**SYN-NEG(VP)*	**SYN-NEG(AUX)*, **INFL-NEG(AUX)*
	(declarative input)					
	I amn't working	*!				*
☞	*I [am not] working*					*
	I am [not working]				*!	
	(interrogative input)					
	Amn't I working?	*!				*
	Am not I working?		*!			
☞	*Am I [not working]?*				*	

In informal spoken Standard American English faithfulness to person and number is sacrificed in order to avoid the very marked use of SYN-NEG(VP) with wide scope:

(34) $*_{\text{SYN-NEG(VP)}} \gg \text{FAITH}^{\text{P \& N}}_{be}$ and $\text{FAITH}^{\text{P \& N}}_{be} \gg *_{\text{SYN-NEG(AUX)}}, *_{\text{INFL-NEG(AUX)}}$

(35) Possible effect of a lexical gap (II):

		*amn't	*SYN-NEG(INV)	FAITH^{NEG}	*SYN-NEG(VP)	FAITH$^{P\ \&\ N}_{be}$	*SYN-NEG(AUX), *INFL-NEG(AUX)
	(declarative input)						
	I amn't working	*!					*
	I aren't working					*!	*
☞	*I [am not] working*						*
	I am [not working]				*!		
	(interrogative input)						
	Amn't I working?	*!					*
☞	*Aren't I working?*					*	*
	Am not I working?		*!				
	Am I [not working]?				*!		

The reason that *aren't* is the optimal form here is that the constraints against more faithful analytic expressions of negation such as **Am not I?, *Am I not?*—namely*SYN-NEG(INV) and *SYN-NEG(VP)—outrank faithfulness to person and number (FAITH$^{P\ \&\ N}_{be}$). According to our analysis of person/number neutralization in Section 2, *are* is the most general form in the present tense paradigm of *be*. Hence, when faithfulness to the input is overridden, *are* will emerge as the least marked form, generalizing further into the paradigm (see Bresnan, in press b).

In conclusion, we see that the movement paradoxes in (1) and (3) are not matters of brute lexical stipulation, but can be derived from more general properties of the grammatical systems of these English dialects: the unmarkedness of *are* in the Standard English paradigm for present *be*, the relative markedness of Standard *-n't* in Scots compared to the non-Standard native form *nae*, and the competition between morphological and syntactic forms of negation across dialects, which follows from the feature-logic based theory of GEN for morphosyntax provided by OT-LFG (Bresnan in press a,b).