

Week 10

Dialectal variation on subject inversion in wh- questions

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1 Reminder of last week

Last week, we saw that Spanish requires subjects to be postverbal in the context of *some* wh- questions, though not *all*. Specifically, in the dialects discussed in Torrego (1984) and Suñer (1994), the following generalizations are true:

- Inversion is required with argumental wh- words, i.e., *quién* 'who', and *qué* 'what'.
- Inversion is only optional with non-argumental (adverbial) wh- words: *dónde* 'where', *cuándo* 'when', *cómo* 'how', and *por qué* 'why'.

Today's topic: Bakovic (1995/1998) discovered that dialectal variation is much more fine grained than Torrego and Suñer assumed. Specifically, the obligatoriness of inversion across dialects shows two implicational hierarchies.

- A hierarchy of types of wh- phrases: why > how > where/when > who/wh- – such that obligatory inversion with any of these types entails obligatory inversion with everything to its right.
- A hierarchy of embedding vs. matrix clauses, such that obligatory inversion of a particular wh- type in embedded clauses also entails obligatory inversion of the same type in matrix clauses.

Therefore, he predicts the following typology of dialects *qua* obligatory inversion, and disregarding for a moment the matrix/subordinate distinction

0 sin inversión Suñer (1994)	1 qué/quién Torrego (1984)	2 cuándo/dónde Bakovic (1998)	3 cómo Goodall (1991)	4 por qué Bakovic (1998)
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When we factor in subordination, we obtain the following logical possibilities. However, only a few of those (the shaded ones) are actually possible.

Possible dialects

Dialectos	A	B	C	D	E	F	G	H	I	J	K	L	M
Oración principal	0	0	0	0	0	1	1	1	1	1	2	2	2
Oración subordinada	0	1	2	3	4	0	1	2	3	4	0	1	2

Dialectos	N	O	P	Q	R	S	T	U	V	W	X	Y
Oración principal	2	2	3	3	3	3	3	4	4	4	4	4
Oración subordinada	3	4	0	1	2	3	4	0	1	2	3	4

Bakovic makes use of the framework of *Optimality Theory* (OT) to account for this kind of variation. OT is based on the following ideas:

- The grammar generates a number of *candidate* sentences, which are evaluated against a series of ranked *constraints*.
- The constraints are considered one by one, starting from the left. A violation of a constraint is marked with *.
- The winning candidate is the one that doesn't violate any high-ranking constraints. This is usually indicated with \models .

2 Constraints for Spanish

Bakovic proposes the following constraints.

- SCOPE-OP — an operator (in this case, a *wh-* word) needs to take scope over the whole proposition. This is assumed to be an inviolable constraint, so it's always very high ranked.
- OB-HD – movement to a specifier position (in this case, *wh-* movement to SpecCP) entails head movement to the associated head position (in this case, C^0). This is also supposed to be an inviolable constraint.

Crucially, Bakovic distinguishes two types of *wh-* movement, adjunction and substitution. Adjunction takes the *wh-* word to an adjoined position, whereas substitution takes it to a specifier position. Note that OB-HD only works for the substitution type of movement. However, SCOPE-OP only enforces adjunction. The substitution type of movement is enforced by a different type of constraint, which is:

- OP-SPEC – An operator (in this case, a *wh-* word) must land in a specifier position, not in an adjoined position.

Bakovic's insight is that OP-SPEC is not a single constraint, but rather a whole family, reflecting the hierarchy of *wh-* word types.

- ARGOP-SPEC – An argumental operator (*who/what*) must land in a specifier position, not in an adjoined position.
- LOCOP-SPEC – A location/time operator (*where/when*) must land in a specifier position, not in an adjoined position.

- **MANOP-SPEC** – A manner operator (how) must land in a specifier position, not in an adjoined position.
- **REASOP-SPEC** – A reason operator (why) must land in a specifier position, not in an adjoined position.

While this is a rigid hierarchy, it can be interspersed with the additional constraint **STAY**.

- **STAY** – add a violation mark per each item that is moved.

How does this work? The **OP-SPEC** constraints force head movement past the subject, because of the existence of **OB-HD**. However, **STAY** penalizes verb movement. Therefore, in each particular ranking, the position of **STAY** will determine the cut-off point for inversion.

The matrix/subordinate distinction The interaction of the **OP-SPEC** constraints and **STAY** predicts that the patterns of inversion for any given dialect will be the same in both matrix and subordinate clauses. To capture the full range of variation, Bakovic proposes an additional constraint, which can be also freely ranked with respect to the **OP-SPEC** constraints and **STAY**.

- **PP(H)** – No movement into the head of a subordinate clause.

Quite transparently, this constraint will force adjunction in all *subordinate* clauses it dominates, independently of whether the matrix clauses involves adjunction or substitution. Matrix clauses remain unaffected. There are two possibilities:

1. If **PP(H)** is ranked higher than **STAY**, then more subordinate clauses will involve adjunction than matrix clauses –i.e., inversion in subordinate clauses will be more restricted.
2. If **PP(H)** is ranked equal to or lower than **STAY**, then the patterns of inversion will be equal in both matrix and subordinate clauses.

3 Discussion

Good points Bakovic’s analysis derives the distribution of inversion in all known dialects of Spanish.

Bad points His analysis is based on the assumption that inversion is caused by verb movement across the subject. However, we saw last week that this is not the case: the verb doesn’t move beyond T^0 , so inversion is done by forcing the subject to stay in a low position (specifier of vP).

Ideally, we would want to rework Bakovic’s analysis to reflect the fact that inversion doesn’t require verb movement. However, this cannot be done with any small modification. His analysis is heavily based on the existence of an inviolable **OB-HD** constraint, which can be reduced to the general theory of structure building. We would have to substitute this one for a different constraint (or family of constraints) that targets subjects instead of verbs. As far as I know, nobody has ever proposed anything like this, at least within OT.

Lessons to remember nonetheless The important part of Bakovic's paper is not the formalism, but the insights that

- Inversion across dialects varies along two dimensions, namely (i) type of wh- phrase involved, and (ii) subordination.
- A fine-grained distinction between different types of wh- phrases is crucial.

4 References

- Goodall, Grant. 1991. On the status of the Spec of IP. *Proceedings of WCCFL 10*, 175-182. CSLI, Stanford, California.
- Suñer, Margarita. 1994. V movement and the licensing of argumental wh- phrases in Spanish. *Natural Language and Linguistic Theory* 12:335-372.
- Torrego, Esther. 1984. On inversion in Spanish and some of its effects. *Linguistic Inquiry* 15:103-129.