Opinion | If it works for English, it must work for all languages. Or does it?
Syntax and the Bender Rule: Focus on Adjunct Control

Youssef A. Haddad
University of Florida
yah@ufl.edu
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It is not an uncommon practice among linguists, mainly those of us who work on English and, on occasion, other European languages, to present their theories without stating the language they analyze in the title of their work. The language that provides empirical evidence on the basis of which a theory is proven or disproven may not even be mentioned in the general description or abstract of the work, and it may not even feature on the back cover or in the keywords when these are available. In the absence of language specification upfront in the title, abstract, back cover, and/or keywords, the assumption is that the theory proposed in the work is language independent. Language independence is a term commonly used in machine learning and Natural Language Processing or NLP. It refers to the claim that if an NLP system works for one or more languages, it is then assumed to be a "cross-linguistically applicable" system that works relatively well with any language (Bender 2011, 2019). The claim or implication that a theory is language independent based solely on tests against data from one language, usually English, or even a handful of languages, leads to a serious assumption: English – which itself is not a monolith – or any other language being analyzed is representative of all human languages, 7,168 of them if we focus on the ones in use today (https://www.ethnologue.com/). It then becomes the duty of linguists who work on other, usually non-Euro-American, languages to prove or disprove the universality of that theory. It is often this latter group that takes the time to mention the name of their language upfront in the title of their work.

In what follows, I use the case of adjunct control to illustrate this practice.

I. Adjunct Control and the Suspect Universality of English

Adjunct control is a relation of interpretation dependency between two arguments in a sentence. As example (1) from English illustrates, one argument, in this case *Mike*, occupies the main clause and is normally pronounced, while the other, presented as Δ, is in the adjunct and it is normally unpronounced. The former controls the interpretation of the latter. That is, the silent argument Δ in the adjunct is also understood as *Mike*.

(1) Mike left the party [$_{\text{Adjunct}}$ without Δ saying goodbye].

Research on control phenomena abounds. However, most of this research has been on control into complements, with comprehensive research on adjunct control as rather rare. A recent work on the topic is Idan Landua's (2021) monograph *A Selectional Theory of Adjunct Control*. The book is a welcome contribution. It presents an elegant and much needed account of control into adjuncts that is both thorough and engaging. The author analyzes adjunct control by looking at ten different types of adjuncts. Like (1), all the instances of adjunct control examined in the study involve a silent argument in the subordinate clause. The silent argument is labeled as PRO. That is, (1) is presented as (2). PRO may be defined as a silent pronominal element that occupies argument positions of subordinate clauses in all and only control constructions.

(2) Mike left the party [$_{\text{Adjunct}}$ without PRO saying goodbye].

The adjunct control theory proposed in Landau (2021) relies predominantly on data from English, (see p. 1 and 207) and seems to work well for that language. The exception is Chapter 11 which presents sample instances of adjunct control from a variety of typologically different languages; these are Italian, Spanish, Umdurk, Greek, German, Norwegian, Polish, French, and Turkish. The selection is meant to show that the conclusions reached about adjunct control in English may work for adjunct control in other languages as well (p. 106). All this is good, of course. At the same time, the reader cannot escape the impression that the theory is intended to be

language independent. The overtone throughout the monograph is that, despite its reliance on English, the theory should, perhaps with a little bit of tweaking, account for adjunct control in any language. This impression is affirmed by the absence of the word 'English' in the title and in the general description of the book on the back cover. It is also evident in the concluding paragraph of the book:

> Finally, this study has said far too little about crosslinguistic aspects of adjunct control. It is unfortunate that deep and comprehensive analyses in this area are mostly limited to English at present. *However, what we already know from other languages has the encouraging character that any expanding linguistic enterprise possesses: a combination of invariant principles with scattered loci of intriguing variation.* (p. 207; my emphasis)

The implication that the proposed theory is language independent becomes more evident in the brief mention of cases of adjunct control from other languages that may in fact pose a challenge for a PRO-based theory of control, followed by their easy dismissal as unproblematic for the theory advanced in the book. The two languages are Lebanese Arabic and Telugu.

In Haddad (2017), I present a case of adjunct control into circumstantial clauses in Lebanese Arabic. Sentence (3), an adapted version of (3a) in original, is an example. In this sentence, the reference of the subject of the adjunct obligatorily coincides with the reference of the matrix subject *l-wleːd* 'the children.' Note that the subordinate subject may theoretically precede or follow the verb.

(3) l-wleːd fe:to: ʕa-l-beːt
the-children enter.PERF.3.PL to-the-house
[(Δ) ʕam-biɣannoː (Δ)
[(Δ) PROG-sing.IMPERF.3.PL (Δ)
ɣinnije la-Naːnsi ʕaʒram]
song by-Nancy Ajram]
'The children walked into the house [Δ singing a song by Nancy Ajram].'

Importantly, the embedded subject does not have to be covert. It may be realized as a quantificational element. That is, (3) may be realized as (4), an adapted version of (10) in original.

(4) l-wleːd fe:to: ʕa-l-beːt
the-children enter.PERF.3.PL to-the-house
[(tleːtit-un) ʕam-biɣanoː (tleːtit-un)
[(three.them) PROG-sing.IMPERF.3.PL (three.them)
ɣinnije la-Naːnsi ʕaʒram]
song by-Nancy Ajram]
'The children walked into the house [the three of them singing a song by Nancy Ajram].'

Landau (2021, p. 20) dismisses instances like (4) as unproblematic. He writes:

> Such "controlled pronouns" [in reference to the quantificational element in (4)] are crosslinguistically attested in predicative complement control as well (Landau 2015:80–81) and fall together with obligatorily bound pronouns in a range of other predicative constructions (see (264) in chapter 13). Contrary to Haddad's conclusion, in no way do they undermine the analysis of the controlled clause as a semantic predicate: the pronoun is λ-bound by a null operator at the edge of the clause, yielding a derived predicate.

The dismissal of the Lebanese Arabic case is too hasty. Let us assume for a moment that PRO may be realized as an overt minimal pronoun bound by a lexical DP/QP (Landau 2015, p. 81). Even if that is correct, which would call for a serious redefinition of PRO, I should note that Lebanese Arabic allows an epithet to appear in the subject position in the embedded clause, as (5) and (6) illustrate. The structures are reminiscent of the analysis of resumption proposed in Aoun, Choueiri, and Hornstein (2001).

(5) l-wleːd fe:to: ʕa-l-beːt
the-children enter.PERF.3.PL to-the-house
[ʕam-biɣannoː l-ħilwiːn/l-mahdʿumiːn
[PROG-sing.IMPERF.3.PL the-sweet.ones/the cute.ones
ɣinnije la-Naːnsi ʕaʒram]
song by-Nancy Ajram]
'The children walked into the house [the sweeties/cuties singing a song by Nancy Ajram].'

(6) neːm ʔaħmad mbeːriħ
sleep.PERF.3.SG Ahmad yesterday
[ʕam-jiʃtikiː l-miskiːn/ħabiːb-iː
[PROG-complain.IMPERF.3.SG the-poor.one/love-my
min waʒaʕ batʿn-o]
from pain stomach-his]
'Ahmad went to bed yesterday [the poor thing / my darling complaining from pain in his stomach].'

The second case of adjunct control that was dismissed without much consideration in Landau (2021) was Telugu. Telugu licenses control into adjuncts known as conjunctive participle or CNP clauses. In Haddad (2009), I present evidence like (7), adapted forms of examples (3a-c) in original, to argue that Telugu allows three types of adjunct control into CNP clauses. Note that the matrix subject, when pronounced, is case-marked nominative, while the subject in the CNP clause is dative.

(7) 'Kumar felt hungry, and he/the idiot/Kumar ate a sandwich.'

a. Forward Control: Overt Matrix Subject – Covert Subordinate Subject
Kumaar [△ aakali wees-i]
Kumar.NOM [△.DAT hunger.NOM fall-CNP]
saandwic tinnaa-Du
sandwich ate-3.M.SG

b. Backward Control: Covert Matrix Subject – Overt Subordinate Subject
△ [Kumaar-ki aakali wees-i]
△.NOM [Kumar-DAT hunger.NOM fall-CNP]
saandwic tinnaa-Du
sandwich ate-3.M.SG

c. Copy Control: Overt Matrix Subject – Overt Subordinate Subject
[Kumaar-ki aakali wees-i]
[Kumar-DAT hunger.NOM fall-CNP]
atanu/aa pichooDu/Kumaar saandwic tinnaa-Du
he/that idiot/Kumar.NOM sandwich ate-3.M.SG

Instances of backward and copy control like (7b) and (7c) in which a pronounced argument appears in the locus of PRO pose a challenge for Landau's (2021) theory of adjunct control. However, Landau dismisses the challenge as unproblematic for his analysis. In an endnote to Chapter 11, he writes,

> Hasty claims for strict OC in adjuncts may be superseded either by evidence for NOC, as in the cases discussed throughout this section, or by evidence for no control at all. The latter possibility is exemplified by Kissock (2013), who convincingly refutes Haddad's (2009) OC analysis of certain adjuncts in Telugu. Kissock advances a pro analysis, but her data are compatible with NOC as well (distinguishing pro from NOC PRO is a subtle matter; see section 11.4). (2021, p. 218)

Many of the claims made in Kissock (2013) are wrong or suspicious at best, but I do not address these here. At the same time, it is true that the case of adjunct control into CNP clauses is more complex than and not as free as my initial research reveals, as Subbārāo (2016) maintains. Forward and backward control apply under more restricted conditions, and copy control is subject to speaker variation. At the same time, by dismissing the case of adjunct control in Telugu as a non-issue, Landau (2021) seems to suggest that the challenge posed by backward and copy adjunct control is gone. This is not the case. Telugu is one of several South Asian languages that

license adjunct control into CNP clauses, and it is certainly not representative of the whole region. Microvariation exists. Some South Asian languages only allow forward control into CNP clauses. Others, like Assamese (Haddad 2011) and Kokborok and Agartala Bangla (Roy, Kumar, and Subbārāo 2021a), license all three types. Beyond South Asian languages, Haug (2017) presents cases of backward adjunct control in ancient Greek and Latin. The sentences in (8) are examples of Assamese Adjunct Control. Note that while the Telugu case of adjunct control as proposed in Haddad (2009) was challenged by Subbārāo (2016) to be less straightforward as originally assumed, Assamese is referenced by the same author and his colleagues as an example of the same phenomenon; see Roy, Kumar, and Subbārāo (2021a, 2021b).

(8) 'Having felt bored at home, Upanita went to a party.'

a. Forward Control
[Δ gɦɔr-ot amoni lag-i]
[Δ.GEN house-LOC boredom feel-CNP]
Upanita party gɔl
Upanita.ABS party went
(adapted from Haddad 2011, p. 72, ex. (5a))

b. Backward Control
[Upanita-r gɦɔr-ot amoni lag-i]
[Upanita-GEN house-LOC boredom feel-CNP]
Δ party gɔl
Δ.ABS party went
(adapated from Haddad 2011, p. 79, ex. (16a))

c. Copy Control
[Upanita-r gɦɔr-ot amoni lag-i]
[Upanita-GEN house-LOC boredom feel-CNP]
tai/Upanita party gɔl
she/Upanita.ABS party went
(adapted from Haddad 2011, p. 111, ex. (2a))

By briefly mentioning languages like Lebanese Arabic and Telugu, Landau (2021) acknowledges the existence of a potential challenge to the theory he proposes. By easily dismissing these languages as no challenge, the book implies that the proposed theory is universal; it has the potential to account for adjunct control in all languages. The above data, as well as data from Kokborok and Agartala Bangla (Roy, Kumar, and Subbārāo 2021a) and from ancient Greek and Latin (Haug 2017), indicate that this is not the case. Adjunct control in these languages is best analyzed as movement; see Pesetsky (2019, p. 104, fn. 69) for a similar conclusion. An argument merges in the adjunct before it moves – whereby movement is understood as copy plus merge – to the matrix clause. At PF, one of the copies may be pronounced, resulting in forward or backward control. Alternatively, both copies may be pronounced, the result of which is copy control.

II. Syntax and The Bender Rule

The discussion in the preceding section raises two questions:

(i) Should a linguist whose proposed theory relies on empirical evidence from Language A declare her/his theory as applicable only to Language A?

(ii) If a theory works well for Phenomenon X in Language A, with the potential of applicability to the same phenomenon in Languages B, C, and D, does it also need to account for challenging instances of Phenomenon X in every language where it has been documented in order to establish its validity?

The answer to both questions is 'NO.' Theories must aspire to have crosslinguistic applicability. In Landau (2021), testing the potential applicability of the theory of adjunct control to languages like Italian, Greek, German, and Turkish is both desirable and necessary, especially if the presentation is accompanied with a clear invitation to linguists who work on these languages to test the applicability of the theory more comprehensively.

At the same time, the existence of documented challenges for a proposed theory in other languages should not undermine the theory and its application to the language(s) it successfully accounts for. First, I think we would be too arrogant to assert that if our theory accounts for a linguistic phenomenon in one or ten or a hundred languages, then it must work for the same phenomenon in the remaining 7,000-plus languages. Second, we should acknowledge the fact that a phenomenon may appear on the surface to be identical in different languages, but the derivational pathway it may take to reach its phonological form may be different from one language or language type to another. Take external possession, for example, and its rough approximation in (9b). As the sentences in (9) illustrate, the pronoun *her* and *forehead* express a possessive relationship. This relationship is 'internal' in (9a) in which *her* and *forehead* occupy the same DP and thus form a constituent, but it is 'external' in (9b) in which *her* and *forehead* do not form a constituent.

(9) a. Before Sue left, I kissed her forehead.
    b. Before Sue left, I kissed her on the forehead.

External possession is licensed in German and Lebanese Arabic, among other languages. On the surface, the phenomenon looks similar in both languages. A closer look tells a different story. Lee-Schoenfeld (2006) convincingly shows that German external possession involves syntactic raising. In Haddad (2016), I show that similar constructions in Lebanese Arabic do not involve raising at all; rather, possessive construal is the outcome of pragmatics and not syntax or even semantics.

So what next? I call for the adoption of Emily Bender's first rule, not only for NLP, but also for syntax and linguistics more broadly:

> Do state the name of the language that is being studied, even if it's English. Acknowledging that we are working on a particular language foregrounds the possibility that the techniques may in fact be language specific. Conversely, neglecting to state that the particular data used were in, say,

> English, gives false veneer of language-independence to the work. (Bender 2011, p. 18).

And I add another rule:

Acknowledge the existence of challenging data from other languages when available, and do not dismiss them as unproblematic or irrelevant unless you are able to provide a thorough analysis.

In his conclusion to "Adjunct Control Depends on Voice," Landau (2017) writes, "It is one of David's [Pesetsky's] teachings that one should not shy away from empirical complexity. In fact, one should actively seek it and savor it, for nothing good can come out of staring at a few, boring facts" (p. 9). I agree. One should not shy away from empirical complexity. At the same time, one should not dismiss it at a glance either. Such dismissal falsely implies that one language represents the totality of the human language experience, that linguistic phenomena are uniform across languages, and that a proposed theory has crosslinguistic applicability. By adhering to the above rules, linguists extend an invitation to other linguists to join forces with them to test theories in a world where all languages stand on an equal footing. Universality becomes then a combined effort grounded in empirical data. As Attardo (1998, p. 634) maintains, "it should be observed that the existence of universals of language, be it at the phonetic or at the pragmatic level, is an empirical issue, not one that can be solved by one's philosophy."