What is an adjunct?

Craig Sailor & Carson T. Schütze

cwsailor@gmail.com, cschutze@ucla.edu

Comments welcome

What is an adjunct? This seemingly simple but fundamental question has resisted an easy answer and sparked much debate. As Hornstein and Nunes (2008: 57) put it, "It is fair to say that what adjuncts are and how they function grammatically is not well understood. The current wisdom comes in two parts: (i) a description of some of the salient properties of adjuncts (they are optional, not generally selected, often display island effects, etc.) and (ii) a technology to code their presence (Chomsky-adjunction, different labels, etc.)." (For classic discussion of the argument/adjunct distinction, see Jackendoff 1977 and Pollard and Sag 1987.) Optionality is the most widely agreed upon property of adjuncts, often taken as criterial. At the same time, it has long been observed that there are cases that appear to involve <u>obligatory</u> adjuncts.

Our goals here are (i) to demonstrate that obligatory adjuncts are more widespread than is generally assumed, and (ii) to argue that the ensuing paradox calls for a fundamental re-thinking of how adjuncts should be conceived and analyzed. Our title can thus be elaborated as: Do adjuncts constitute a homogeneous class? If so, by what criteria, and can they be given a unified structural treatment?

Obligatory adjuncts: a (partial) catalog

There are at least seven environments where apparent adjuncts are descriptively obligatory.

1. Selection by verbs

A small set of notorious verbs appear to select for adverbial modification (Levin 1993):

(1) a. John {meant/acquitted himself} *(well).
    b. Mary behaved *(badly) to(wards) John.

Some of these may constitute idioms, but perhaps not all.

2. Predicate inversion

While the canonically-ordered examples in (2) are grammatical with bare NP predicates, their inverted counterparts in (3) are ill-formed if the predicate is not modified (usually by a relative clause):

(2) a. Barack Obama is a man.
    b. Paris is a city.

(3) a. A man *(who we're dying to meet) is Barack Obama.
    b. A city *(that everyone should visit) is Paris.

This is not merely a quirk of English; it replicates in other languages, including Italian, where an adjective constitutes sufficient modification:

(4) Un *(bravo) padre è Obama.   *Italian*
    a   good   father is Obama
    'Obama is a *(good) father.'

We intersperse Italian examples throughout (Ivano Caponigro, p.c.) to underscore the crosslinguistic attestation of obligatory adjuncts.

3. Cognate objects
    True cognate objects are unacceptable without modification (when the determiner is *a/the*):

(5) a. John slept a *(fitful) sleep.
    b. Mary laughed a *(sad) laugh.
    c. Susan smiled a smile *(that encouraged me).

(6) Maria ha riso   di un riso   *(amaro).   *Italian*
    Maria has laughed of a   laugh   bitter
    'Maria laughed a *(bitter) laugh.'

This does not hold of the superficially-similar hyponymous object construction (e.g., with *dance*) (Jones 1988).

4. Various resultative constructions
    There are three phenomena involving strictly intransitive verbs taking apparent surface objects, all with resultative flavor; this is possible only if those objects are modified (Jackendoff 1990):

(7) John laughed himself *(sick).   *Fake reflexive*
(8) Sue sneezed the tissue *(off the table).   *Caused-motion construction*
(9) Tom cheated his way *(to an A+).   Way-*construction*

5. Free choice any
        In some environments, including episodic statements, free choice *any* demands that its head noun be modified (Dayal 2004):

(10) a. John read any book *(he found/on the table).
     b. I grabbed anything *(that could be useful).

(11) Ho   afferrato qualunque cosa ??((che fosse   ) sul   tavolo).   *Italian*
      have.1SG grabbed whatever   thing   that was.SBJN on.the table
      'I grabbed anything ??((that was) on the table).'

6. Middles

It has been claimed that the English middle construction is ungrammatical without adverbial modification:

(12) a. This luggage stows away *(easily).
       b. Cotton shirts iron *(quickly).

(13) Il   libro si presenta *(bene).   *Italian*
      the book SI presents   well
      'The book presents *(well).'

While there apparently are middles that do not share this requirement (Rapoport 1999), the above examples are clearly ill-formed without modification.

7. Pseudo-middle nominals

The same effect arises in what we dub "pseudo-middle nominals," which we believe are related to middle voice. To our knowledge, these have not been previously discussed in the literature:

(14) a. *Moby-Dick* is a *(great) read.
      b. John is an *(easy) lay.

(15) Maria è una scopata *(facile).   *Italian*
      Mary is a   fuck   easy
      'Mary is an *(easy) fuck.'

See Ahn and Sailor (in press) for other predicate nominals that seem to require modification, which they argue are also related to middle voice.

Theoretical consequences

Given these exceptions to the supposed optionality of adjuncts, one could simply define the problem away: since they are obligatory they cannot be adjuncts, therefore they must be something else. This is unsatisfying because we have a strong intuition that obligatory adjuncts are semantically and categorially on par with canonical (optional/non-essential) modifiers: adjectives, adverbs, relative clauses, and certain PPs, all acting as predicates. It is conceivable that this apparent unity is epiphenomenal and should have no theoretical status; we do not explore that possibility. Instead, we suggest that obligatory adjuncts are real, and thus that optionality cannot be a criterial property (or diagnostic) for adjuncthood. We are then faced with two problems: (i) identifying why adjuncts are sometimes obligatory, and (ii) determining how adjuncthood should be implemented theoretically.

Regarding (i): certain sentences, while perhaps syntactically well-formed, are commonly thought to be insufficiently informative (perhaps tautological) without modification (e.g., Goldberg and Ackerman 2001). For example, *Moby-Dick is a read* arguably cannot contribute anything to a discourse, being as uninformative as *This book is a book*. (A potential challenge: the former still "sounds worse" than the latter to many speakers.) In addition to middles and pseudo-middle nominals, such a pragmatic explanation extends to the cases in (1), (5)/(6), and (10)/(11); (3)/(4) would require something more, perhaps involving the information-theoretic properties of predicate inversion. This approach strikes us as unpromising for the resultatives in (7)–(9), however: without the adjunct these structures are unrescuable by any amount of pragmatic tweaking. Intuitively it is the <u>adjunct</u> that licenses the presence of the "object."

Turning to (ii), in the earlier P&P approach, an adjunct XP modifying some YP was typically given the analysis in (16):

(16) [$_{YP}$ [$_{XP}$ X] [$_{YP}$ Y]]

That is, the adjunct XP is simultaneously sister to and daughter of another maximal projection—a sort of selectional no-man's-land, neither changing the category of the YP it combines with, nor appearing in a position that Y selects for (i.e., its specifier or complement). Thus, adjuncts were thought of as somehow set apart from the selectional process that drives most syntactic structure-building. While perhaps technically unsatisfying, this approach is at least consistent with adjuncts being optional modulo extra-syntactic considerations.

In Minimalism, matters have not improved. We concur with Hornstein and Nunes in their continuation of the above quote: "Within the Minimalist Program, adjuncts have largely been treated as afterthoughts and this becomes clear when the technology deployed to accommodate them is carefully (or even cursorily) considered." For example, Pair-Merge is at least as ad hoc as (16), and the idea that adjuncts are uniformly Merged post-cyclically ("late merger of adjuncts," e.g., Stepanov (2001), extending Lebeaux (1988)) is widely accepted. However, obligatoriness must originate in the lexicon: it reflects the demands of some feature hard-coded into the lexical entry of a syntactic head. Such features drive selection, and their satisfaction is required for convergence (cf. Full Interpretation (Chomsky 1995)). Thus, if an adjunct is obligatory, then some head has selected for it; moreover, for the derivation to converge, that adjunct must be Merged in the narrow syntax. Therefore, if certain adjuncts can select for some part of the clausal spine (e.g., perhaps the resultatives (5)–(7)), then they must be Merged as part of the normal derivational cycle, contra late merger of adjuncts.

This might be taken to support the alternative analysis of adverbials and other adjuncts in Cinque (1999) and subsequent work. That is, if adjuncts are Merged in the specifiers of functional heads that are universally present on the clausal spine, the appearance of an adjunct selecting or being selected for may actually reflect the behavior of the (silent) functional head whose specifier that adjunct occupies. While this approach to "adjunction" (now fully rooted in selection) has been fruitful, it raises its own questions: e.g., if (non-)obligatoriness is lexical, how can adjunction be reduced to selection (as Cinque, i.a., does) without exploding the size of the lexicon? These issues remain to be fully understood.

References

Ahn, Byron and Craig Sailor (in press). The emerging middle class. *CLS 46 Proceedings.*

Chomsky, Noam (1995). *The Minimalist Program*. MIT Press.

Cinque, Guglielmo (1999). *Adverbs and functional heads: A cross-linguistic perspective*. Oxford University Press.

Dayal, Veneeta (2004). The universal force of free choice *any*. *Linguistic Variation Yearbook* 4, 5–40.

Goldberg, Adele E. and Farrell Ackerman (2001). The pragmatics of obligatory adjuncts. *Language* 77, 798–814.

Hornstein, Norbert and Jairo Nunes (2008). Adjunction, labeling, and bare phrase structure. *Biolinguistics* 2, 57–86.

Jackendoff, Ray (1977). *X-bar syntax: A study of phrase structure*. MIT Press.

Jackendoff, Ray (1990). *Semantic structures*. MIT Press.

Jones, Michael Allan (1988). Cognate objects and the case filter. *Journal of Linguistics* 24, 89–110.

Lebeaux, David (1988). Language acquisition and the form of grammar. Ph.D. dissertation, UMass Amherst.

Levin, Beth (1993). *English verb classes and alternations: A preliminary investigation*. University of Chicago Press.

Pollard, Carl and Ivan A. Sag (1987). *An information-based syntax and semantics, volume 1: Fundamentals*. CSLI.

Rapoport, Tova (1999). The English middle and agentivity. *Linguistic Inquiry* 30, 147–155.

Stepanov, Arthur (2001). Late adjunction and Minimalist phrase structure. *Syntax* 4, 94–125.