
This paper concerns the syntax of tensed *-clauses of the type shown in (1):

(1) 

\[(\text{ok}) \text{ Many } (*\text{ drivers } (*?\text{ can } (*\text{ afford } (*?\text{ a } (*\text{ Buick, as we can a jeep.} }}

Externally, this clause behaves like a type of sentence adverb (others are possibly, perhaps, allegedly, I think, etc.; and you know, said Ed, not to put too fine a point on it, how can I explain it to you, worse luck, etc.), and can be inserted (between commas) at those places in (1) marked by ‘•,’ the resulting grammaticality being shown by the following parenthesized symbol. This characterization is criminally overgeneral; the first four of these adverbs can be sandwiched between commas or not, while the last five, which are underlined, require surrounding commas, as do *-clauses themselves. And there are many differences in distribution, but if we say that Niching, the rule that inserts sentence adverbs in various places in a clause, can only insert them in niches, then we might begin to characterize the distribution of these niches as in (2).

(2) Niches do not appear between any left branch of a constituent and a following branch of that constituent. Graphically,

\[A \xrightarrow{•(*)} B\]

This restriction blocks sentence adverbs from appearing in any of the environments in (3a), exemplified in (3b-i).

(3) Nichabilities

a. Determiner *(*) N, Article *(*) N, Adjective *(*) N, P *(*) NP, Adverb *(*) Adjective, Adverb *(*) V, Adverb *(*) PP

b. *many, worse luck, hotels
c. *the, worse luck, hotels
d. *grubby, worse luck, hotels
e. *toward, worse luck, the hotels
f. *rather, worse luck, dingy
g. *many, worse luck, hotels
h. *often, worse luck, yodel
i. *right, worse luck, behind the bed

Further, there are no niches in NP's, though there are niches between verbs and (some of) the objects of these verbs. This rough characterization of the distribution of *-clauses in their own clauses will have to do for the moment.
II. External syntax – Part II. The originating clauses of as-clauses. Parallels with and differences from Gapping.

I postulate the existence of an optional deletion rule, called As-ing, which operates to delete the main verb of a finite as-clause, under identity with the main verb of the clause immediately to the left of the clause (which I will refer to as “the originating clause of the as-clause,” for reasons which will become clear below). Thus (4a) becomes (4b), and (4c) becomes (4d).

(4) a. I have played chess, as Harry has played checkers.
b. I have played chess, as Harry has, _____ checkers.
c. I am playing chess, as Harry is playing checkers.
d. I am playing chess, as Harry is, _____ checkers.

Note the contrastive direct objects, which must receive emphatic stress (indicated by boldfacing them). The subjects receive contrastive stress too, but I will leave them unmarked, for I am more interested in what happens after the verb. Note also the comma after the tensed verbs in (4b) and (4d): for me, there must be a rising intonation just before the pause which, signified by the “——”, marks the site of the deleted main verb.

In the case of a simple present, (5a), we might assume a remote structure containing the classic empty verb do. I do not wish to enter the lists about how the appearance and disappearance of this little verb is to be orchestrated; (5a) optionally becomes (5b).

(5) a. I do play chess, as Harry does play checkers.
b. I do play [ > play] chess, as Harry does ( ) —— checkers.

In the case of sequences of auxiliary verbs, the following possibilities are manifested.

(6) a. I have been playing chess, as Harry has been playing checkers.
b. ?I have been playing chess, as Harry has been, —— checkers. ≤
c. I have been playing chess, as Harry has, —— checkers.

(7) a. I may have been playing chess, as Harry may have been playing checkers.
b. ?I may have been playing chess, as Harry may have been, —— checkers. ≤
c. I may have been playing chess, as Harry may, —— —— checkers.

(8) a. Al may have been being followed by the NSA, as I may have been being followed by the FBI.
b. *Al may have been being followed by the NSA, as I may have been being —— by the FBI.
c. Al may have been being followed by the NSA, as I may have been, —— —— by the FBI.
d. Al may have been being followed by the NSA, as I may have, —— —— by the FBI.
e. Al may have been being followed by the NSA, as I may, —— —— —— by the FBI.

The generalization here seems fairly clear: the rule that optionally deletes the main verb under identity can also optionally delete preceding auxiliary verbs under identity, by a process which takes first the rightmost shared auxiliary, and then moves to the left. There is one wrinkle that requires comment: if the passive past
participle is preceded by *being*, when the past participle is deleted, the deletion of *being* is not optional but rather obligatory. The sequence *being* + passive past participle is special in a number of ways, some of which are mentioned in Ross (1991).

But now let us examine what would happen in the case of an *as*-clause whose object was not in contrast with the object of the originating clause. Such a sentence is in (9a). If *As*-ing applies, the ungrammatical *(9b)* results, and if the rightmost identical auxiliary is also deleted, *(9c)* results.

(9) a. I have been eating pizza, as he has been eating pizza.
   b. *I have been eating pizza, as he has been, ——— [pizza/it].
   c. *I have been eating pizza, as he has, ——— [pizza/it].

   I propose that here, a mopping-up rule applies, which deletes (usually obligatory), any non-contrastive element in the *as*-clause. There are conditions on this mopping up which I will not go into here; some of the relevant facts are displayed in (10).

(10)a. I have sent money to Jan, as he has sent money to Hella.
   b. I have sent money to Jan, as he has, ——— ([?money/*it]) to Hella.
   c. I have sent money to Jan, as he has sent books to Jan.
   d. I have sent money to Jan, as he has, ——— books (to her).
   e. I have sent Jan money, as he has sent Hella money.
   f. ??I have sent Jan money, as he has, ——— Hella ([*money/*it]).
   g. I have sent Jan money, as he has sent Jan books.
   h. ?I have sent Jan money, as he has, ——— ([*Jan/*her]) books.

   The rule of *As*-ing must be blocked in certain environments — cf. (11).

(11)a. I will bring the wine in, as he will bring the beer out.
   b. I will bring the wine in, as he will, ——— the beer out.
   c. I will bring in the wine, as he will bring out the beer.
   d. *I will bring in the wine, as he will, ——— out the beer.

   I call attention here to a striking similarity between the above analysis and the behavior of the rule of Gapping (cf. Hankamer (1979), Ross (1971)). This rule, which only operates in coordinate structures, elides the verb of the second clause under identity with the verb of the first clause. In (12) and (13), I have modified the *As*-ing examples of (10) and (11) to exhibit their similarities to cognate Gapping sentences.

(12)a. I have taken money to Jan, and he has taken money to Hella.
   b. I have taken money to Jan, and he ——— ([?money/*it]) to Hella.
   b'.?I have taken money to Jan, and he — taken ([money/it]) to Hella.
   c. I have taken money to Jan, and he has taken books to Jan.
   d. I have taken money to Jan, and he ——— books (to her).
   d'.?I have taken money to Jan, and he — taken books (to her).
   e. I have taken Jan money, and he has taken Hella money.
   f. ??I have taken Jan money, and he ——— Hella ([*money/*it]).
   f'.??I have taken Jan money, and he — taken Hella ([*money/*it]).
   g. I have taken Jan money, and he has taken Jan books.
   h. ?I have taken Jan money, and he ——— ([*Jan/*her]) books.
   h'.?I have taken Jan money, and he — taken ([Jan/her]) books.

(13)a. I will bring the wine in, and he will bring the beer out.
b. I will bring **the wine** in, and he —— **the beer** out.
c. I will bring **in the wine**, and he will bring **out the beer**.
d. *I will bring **in the wine**, and he —— **out the beer**.

Perhaps the most striking parallel here is the way the contrast between (11b) and (11d) matches that between (13b) and (13d). The only differences between the ungapped sentences in (13a) and (13c) is whether the particles *in* and *out* precede of follow their direct objects. For reasons unknown to me, when the particles precede, gapping is rendered impossible. And lo and behold, in precisely this configuration, in (11c), *As*-ing is prevented from deleting the verb *bring*.

A word about how the two verb deletion transformations differ with respect to the treatment of auxiliaries. In a way, they are complementaries: as we see in (12), *Gapping* requires that the auxiliary bearing the tense be deleted – this has happened in (12b', d', f' and h'). I have not conducted a survey to establish what percentage of speakers accept this kind of gapping, but my impression is that it is a small minority at best. Thus for these speakers, only the gappings in (12b, d, ??f, and ?h) are acceptable, and all of these are worsened if repeated elements remain in the gapped sentences, as I have tried to indicate by the asterisks inside the parentheses in these examples. The default rule for gapping for the largest dialect of English, as far as I know, is that the gap must contain the main verb and all preceding auxiliary verbs, and that the post-gap part of a gapped clause should contain just one contrastively stressed element.

Thus (14a) is preferred to (14b),

(14)a. I will be writing and he —— reading.

b. I will be writing and he —— be reading.

and (15a) to (15b),

(15)a. I will be writing novels and he ——— letters.

b. I will be writing novels and he —— writing letters. >>

c. I will be writing novels and he —— be writing letters.

and (16a) to (16b),

(16)a. I wrote letters to them and she ——— cards.

b. I wrote letters to them and she ——— cards to them.

and (16b) to (17),

(17) I wrote letters to him and she ——— cards to them.

and (17), with its post-gap sequence of a NP and a PP, is far preferablr to (18), with its post-gap sequence of two NP's.

(18) I wrote him letters and she him cards.

It would take me too far from our main topic to go into further details about gapping, or in fact to point out all of the parallels between these gapping facts and the *As*-ing facts that we see in comparing (10) and (12).

Summing up, however, what we notice in the gappings of two clauses multiple auxiliaries, while the zeroing of all auxiliaries and the main verb is what would make most speakers the happiest, there are speakers who allow progressively greater
subsequences of the auxiliaries to remain, starting from the those closest to the main
verb – cf. (19).

(19)a. I could have been being followed by the CIA, and
Al could have been being followed by the NSA.
b. I could have been being followed by the CIA, and
Al —— by the NSA.
c. I could have been being followed by the CIA, and
Al ———— followed by the NSA.
d. I could have been being followed by the CIA, and
Al ——— being followed by the NSA.
e. I could have been being followed by the CIA, and
Al ——— been being followed by the NSA.
f. I could have been being followed by the CIA, and
Al — have been being followed by the NSA.

By contrast, if we look at a parallel initial as-clause containing sentence, and pay
attention to the variants it offers, we see a reverse pattern emerging:

(20)a. I could have been being followed by the CIA, as
Al could have been being followed by the NSA.
b. I could have been being followed by the CIA, as
Al could have been —— by the NSA.
c. I could have been being followed by the CIA, as
Al could have ———— by the NSA.
d. I could have been being followed by the CIA, as
Al could have ——— by the NSA.
e. I could have been being followed by the CIA, as
Al could ———— been being followed by the NSA.
f. I could have been being followed by the CIA, and
Al —— have been being followed by the NSA.

The strange complementarity of these two processes can be highlighted by this
short statement:

(21) In Gapping, the auxiliary bearing the tense morpheme must be deleted;
in As-ing, this morpheme must not be deleted.

There is another mysterious difference between these two deletion processes:
Gapping operates only between two or more coordinate clauses; As-ing requires only
that the clause whose main verb (and optionally, some number of preceding identical
auxiliaries) are optionally deleted (I will refer to this clause as the target clause) be in
the same island as the originating clause, as I will demonstrate in Section III of this
paper.

III. How originating clause and target clause must be configured. The Island-
mate Condition.

In the examples considered thus far, the as-clause has contained only one
subordinate clause (the target clause), which, if it bore the requisite structural
parallels to the originating clause (whose dominating sentence node immediately
dominated the as-clause), could have its verb deleted by the rule of As-ing. This is
the case for (22a); in (22b), As-ing has deleted the shared main verb wash, and the
mopping up rule has deleted the cats.
(22)a.  [I will wash the cats [as Sally will wash the cats]_{S2}\{S1} →  
  b.  [I will wash the cats [as Sally will _________]].

But in (23), we see that another sentence intervenes between originating clause and target clause:

(23)a.  [I will wash the cats [as Bob knows [that Sally will wash the cats]_{S2}\{S1} →  
  b.  [I will wash the cats [as Bob knows [that Sally will _________]]].

And in (24), a fourth sentence has been interposed:

(24)a.  [I will wash the cats [as everybody says [that Bob knows [that Sally will wash the cats]]_{S2}\{Sb}\{Sa}\{S1} →  
  b.  [I will wash the cats [as everybody says [that Bob knows [that Sally will _______]]]].

Clearly, there is no limit to the number of such interpositions. And yet originating clause and target clause must be in the same island (for a definition of this term, cf. Ross (1986), Chapter 5). The sentences in (25) violate this island-mate condition, for various types of island-forming nodes; all are ungrammatical.

(25)a. * [I will wash the cats [as Bob knows a man [who will _________]].  
  b. * [I will wash the cats [as Bob likes me and knows [that Sally will _________]].  
  c. * [I will wash the cats [as [that Sally will _________] might upset Tim].

Technically, of course, the sentences S_2, S_a and S_b are not in the same island as the elements dominated by the as-clause, because adverbial subordinate clauses are themselves islands. But for ease of exposition, I will disregard this point.

In summary, let me make one point of theoretical interest. In order for the rule of As-ing, as I have formulated it, to apply, it must inspect some originating clause (this is easy to find: an originating clause will have an as-clause adjoined to it), and then must be able to proceed indefinitely far down into this as-clause to find a possible target clause. If the target clause matches it in structure sufficiently, which is not the case in (26) – if As-ing were to apply to (26a), the ungrammatical (26b) would result)

(26)a.  [I will wash the cats [as the cats will be washed by Sally]_{S2}\{S1} →  
  b. * [I will wash the cats [as the cats will (be) _________ by Sally]].

then the deletion may proceed. This seems to me to be an unusual way for the notion of constraints on extraction to enter into a syntactic process. The search for a comparable clause is what is here subject to extraction constraints – though nothing is being extracted. And the search is catalyzed by the presence of as, a conjunction, a word to which nothing happens. It just sits there and sops up the milk.

It is slightly reminiscent of the way that the coordinating conjunctions and and or catalyze the operation of Gapping; they are part of the environment for the actual deletion, though nothing happens to them or through them.

I will end with one more parallel between Gapping and As-ing: as is well known, as-clauses exclude negatives (cf. (27a)) and so so does Gapping – cf. (27b). Hmm.

(27)a.  I am rich, as my neighbors (*don’t) know.
  b.  I (*don’t) like pizza, and Bill ___ lasagna.
IV. Where *as*-clauses can move to in clauses that dominate them.

If (i) is embedded as a complement,

(i) *(ok) He *(?) can *(ok) afford *(?) a *(?) Buick, as we can a Jeep.

as in (28),

(28) *(ok) {S I *(?) think *(?) {S that *(?) many *(?) revealed *(?) to *(?) Ann *(?)
{S that he *(?) can *(ok) afford *(?) a *(?) Buick, as we can a Jeep.}

we see that *as*-clauses can appear only at the left margins of higher clauses (marked by ‘{S’). This distribution – that of a sentence adverb, which can be niched as described roughly above in (2) and (3), but when moved up and out of its clause, can only be inserted to the left of a higher subject, is like nothing that I know of. I do not know what kind of constraint to place on *as*-clauses. Until their distribution is compared with that of other sentence adverbs, when these are moved into higher clauses, I think that the matter is best left open.

V. What kinds of clauses can have *as*-clauses appended to them.

Here the requirement seems to be that an *as*-clause needs sentenciness in its originating clause. If a complement sentence, for example, is highly nouny [Cf. Ross (1973/2004)], it is shunned by *as*-clauses, as we see in (29).

(29)

Sentencier realizations of the embedded proposition

a. That *(?) Jo *(ok) had *(ok) given *(?) a cobra *(ok) to us, as Mal bad, was unfortunate.
b. For *(?) Jo *(?) to *(?) have *(?) given *(?) a cobra *(ok) to us, as Mal bad, was unfortunate.
c. Whether *(?) Jo *(ok) had *(ok) given *(?) a cobra *(ok) to us, as Mal bad, was not revealed.
d. *(?) Jo *(ok) having *(ok) given *(?) a cobra *(ok) to us, as Mal bad, was unfortunate.
e. *(?) Jo’s *(?) having *(?) a cobra *(ok) to us, as Mal bad, was unfortunate.
f. *(?) Jo’s *(?) giving *(?) of *(?) a cobra *(ok) to us, as Mal bad, was unfortunate.
g. *(?) Jo’s *(?) giving *(?) of *(?) a cobra *(ok) to us, as Mal bad, was unfortunate.
h. *(?) Jo’s *(?) gift *(?) of *(?) a cobra *(?) to us, as Mal bad, was unfortunate.

Nounier realizations of the embedded proposition

VI. What kinds of constituents *As*-ing can cause the deletion of.

The following phrase types can be deleted in *as*-clauses:
(30) a. Adverbs:

Manny can run fast, as I (also) can (walk) ___.
?He goes to church [often/regularly/hours], as I go to the gym (often).

b. AP's (after be, and after some, but not after all, verbs):

Jethro [is/seems/grew] rich, as his mom [was/seemed/*grew].
She found him attractive, as he found her ___.
?*We hammered the pots flat, as they hammered the radiators too ___.
?She leaves the windows open, as he leaves the back door ___.
*Sandra went out drunk, as Michael came home ___.

c. All NP's after be, and only occasional NP's after true verbs:

Crashley [was/will be] a punk, as his son [was/will (be) ___].
Crashley [became/will become] a punk, as his son [did/??became/??will become] ___.
Grabo wore hats, as some others in the platoon *(also) wore___.
?*Grabo invented hats, as some others in the platoon also invented ___.

d. All PP's after be [NB: -ing never strands a preposition].
Some locative PPs after true verbs; almost no directional PPs,
and no PPs which are not either spatial or temporal:

We were in LA, as they were (**in) ___.
The meeting was at 4, as was the final ___.
They will stay in NY, as we will (*stay) ___.
I have been to NY, as he has (*been) ___.
I will walk to NY, as he will (*hop) ___.
*I dreamt of Jeannie with the long brown tail, as they all dreamt ___.

VII. Negation and as-clauses.

Negation is always up for leading overtaxed semantacticians a new wild goose chase. -ing leaps at the chance to baffle. The relevant (daringly true) generalization would seem to be that in (12):

(31) Sometimes negative triggers can't appear in as-clauses.

Horrific examples (a starter kit) appear in (32)

(32) a. Bill will run, as Tony [never will/*will never] ___.

b. Bill ran, as Tony [did not/*didn't] ___. NB: as = as Tony ran.

Bibliography