

English Superlatives and Comparatives

Richard S. Kayne
New York University

University of Geneva
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Part I. A not entirely irrelevant digression on English past tense *-ed*.¹

1. The separate morphemic status of *-e-*.

(1) An English verb disallows *-ed* in the past tense iff that verb disallows *-ed* as a past participle.

(2) The *-ed* found in the English past tense is identical to the *-ed* found with English past participles

(3) English *-ed* is actually two morphemes.

In other words, a form like *requested* is to be analysed as in:

(4) request *-e-* *-d*

with *-e-* perhaps akin to a theme vowel (but see below) and *-d* the past tense/participle morpheme..

(5) This *-e-* protects the stem from being affected by *-d*. (Nor can the form of the stem be affected by this *-e-* itself.)²

2. More on *-d*.

Let us return to (1), repeated here:

(6) An English verb disallows *-ed* in the past tense iff that verb disallows *-ed* as a past participle.

With one exception (*did, done* - possibly, the *-d* of *did* might be (an irregular) part of the stem), this generalization extends to *-d* even when (theme) vowel *-e-* is not present, so that we have:

(7) An English verb disallows *-d* in the past tense iff that verb disallows *-d* as a participle.

Verbs with a bare *-d* (i.e. with no visible *-e-*) that respect (7) by virtue of having *-d* both in past tense and participle, are:

(8) told, sold, said, had, fled, shod, heard, made, held

I take the verbs of (8) to provide support for the idea that the *-d* of (8) is the same *-d* as the one found with regular verbs (*emailed*, etc.).

¹Cf. Kayne (2019a).

²Cf. Calabrese (2015) on Italian theme vowels.

3. *goed as part of a more general fact about light verbs.

English *goed is impossible both as a past tense form and as a past participle. This is almost certainly not an arbitrary fact about *go*.³ *Go* belongs to a class of English verbs that is incompatible with this -e- (and therefore, in the past/participle, with -ed). Put another way, *go* belongs to the class of English verbs that does not allow -e- to be merged just above it.

Perhaps better,⁴ this -e- negatively selects for a certain class of (past/participle) verbs that includes *go*.

There is, moreover, reason to think that the class of verbs that -e- excludes from its domain is not arbitrary. In particular, the following generalization looks correct:

(9) All English light verbs are incompatible with the theme vowel -e- in the past tense/participle.

To the extent that the notion of light verb is not fully clear, it is difficult to judge the exact degree of validity of (9). Yet it is striking that the strongest candidates for being light verbs in English, namely:⁵

(10) *be, have, do, go, come, take, bring, put, get, give, make, let, say, can, will, shall, may, must*

are all sharply incompatible with -e- in the past tense/participle, as seen in:⁶

(11) *beed, *haved, *doed, *goed, *comed, *taked, *bringed, *putted, *getted, *gived, *maked, *letted, *sayed, *canned, *willed, *shalled, *mayed, *musted

To be noted is the fact that (9) is only a one-way implication; being a light verb implies being incompatible with -e-, but the reverse does not hold, insofar as there are verbs that are incompatible with -e- in the past tense and participle (e.g. *spent*/**spended*, *lent*/**lended*, *meant*/**meaned*, *slept*/**sleped*) that are with virtual certainty not light verbs.

4. What's special about light verbs?

³Cf. Kayne (2019a).

⁴Cf. Kayne (2006) on gender.

⁵In the following:

i) John underwent/*undergoed surgery last week.

go is a light verb and *under* a particle.

⁶As Paloma Jeretič (p.c.) points out, some of these are also incompatible with -d/-t, e.g.:

i) *be/was, come/came, take/took, give/gave*

the possible significance of which remains to be determined. Luke Adamson (p.c.) notes that apart from *be*, (some instances of) *have*, and the modals, light verbs do not raise, e.g.:

ii) *You gaven't it to us.

iii) *Give you to the Red Cross?

For relevant discussion, see Pollock (1989).

But why should (9) hold in the first place? Let's think about it from a Hale & Keyser (1993; 2002) perspective (taking it perhaps further than they would have). There are light verbs like those in (10) and then there are denominal verbs as in their discussion of *sleep*. Strongly put:

(12) Light verbs are never denominal, i.e. they don't involve N-incorporation (though they may reflect V-incorporation in some cases).

(13) All verbs are either light or denominal.

Given this, we can reinterpret (9) as follows:

(14) The *-e-* in question requires the presence of an incorporated N.

5. Why is *-ed* the 'elsewhere' case?

English past tense forms have either *-ed*, or *-t/-d*, or an unpronounced suffix.

We can note in passing that the presence of an unpronounced suffix (in cases like *The book fell off the shelf*), as opposed to the absence of any suffix at all in such cases, is supported by the fact that zero-suffixed verbs act exactly like all the others with respect to *do*-support.

A similar point can be made for the English present tense zero suffix (as in *They fall off too often*). Assuming that Chomsky (1957) was correct to take Tense to play a central role in *do*-support, the fact that English present and past tense verbs act exactly the same with respect to *do*-support indicates the presence of a silent present tense suffix.

Returning to the 'elsewhere' question, we have the following proposal:

(15) *-ed* is the 'elsewhere' case because all 'new' verbs are denominal

For example, sports verbs are arguably all 'new', so we have, in a baseball context, the following contrast:

(16) The bird flew out to left field.

(17) The batter flied out to left field.

with the latter example denominal, i.e. with a silent light verb and an incorporated N, in this case arguably a bigger NP = 'fly BALL'.

A challenge: A vowel change indicates absence of *-e-*, so it looks like some verbs that one might well take to be denominal, for example, *fight* (given *have a fight*), don't take *-e-*, given *fought*.

In other words, (14) cannot be strengthened to a biconditional.

But why should (14) hold at all? Possibly, *-e-* needs an incorporated N for the following reason:

(18) This *-e-* is in fact a D (with *-e-* conceivably being the unstressed vowel of *the* or of *a*).

If so, that may in turn suggest that incorporation (in this case, to a light verb) of a completely D-less N is never available.

This would in turn recall the idea that arguments, broadly interpreted, must have a D.⁷ (Romance infinitives present an interesting challenge, as do Romance compounds of the French *tire-bouchon* sort.)

Baker (1996, 299, 313, 334, 413) in fact has cases in which a D is stranded by noun-incorporation, which we will now clearly want to extend to silent Ds, in the Hale & Keyser cases, as well as in certain cases of ‘compounding’, such as:⁸

- (19) two Hudson River-loving linguists
- (20) another Netherlands-loving linguist

given the following:

- (21) We love *(the) Hudson River.
- (22) We love *(the) Netherlands.

Put another way, to unify this quartet of examples, we will want to have a D consistently present with *Hudson River* and *Netherlands* (and in other similar cases), with English having the property that this (definite) D must be pronounced when the relevant phrase is in a sentential argument position, as in (21)/(22), but must not be pronounced when stranded, as in (19)/(20).

The presence of a silent THE might then plausibly be extended to non-proper-name compounds like:⁹

- (23) They’re real magazine-lovers.

thinking of:

(24) The magazine has long been an important part of American culture. which suggests that THE in (23) would be generic-like,¹⁰ as in (24), and/or like the definite article of French partitives, as in:

- 25) Nous achetons de la bière. (‘we buy of the beer’ = ‘we’re buying beer’)

Part II. English superlatives and comparatives

6. A point of similarity between suffixal superlatives and past tense

Let us return to (5), repeated here:

(26) (This) -e- protects the stem from being affected by -d. (Nor can the form of the stem be affected by this -e- itself.)

This particular ‘inertness’ of past tense/participle -e- might now be linkable to that of D more generally.

⁷Cf. Longobardi (1994, 620).

⁸Baker (1996, 307) points out the (partial) similarity between compounding of the English sort and incorporation (on which, cf. Baker (1988)).

Why *the Hague* works differently (cf. Perlmutter (1970, note 11)) remains to be understood.

⁹Relevant here is Schwarz (2013).

¹⁰Cf. Kayne (1975, sect. 2.9).

What (26) says is that for an English verb to be 'irregular' in the past tense, it cannot be accompanied by *-e-*.¹¹

Now most English suffixal superlatives are regular, with *-est*. A small number are not:¹²

(27) most, least, first, last, best, worst, next

These lack the *-e-* for reasons that can't be simply phonological, given *dearest*, *crassest*, *direst*, *surest*. All have irregular stems. Put another way, the presence of the *-e-* of *-est* in superlatives blocks irregularity in the stem, in a way that clearly recalls the property of past tense/participial *-e-* given in (26).

This leads to:

(28) Superlative *-est* is (at least) bimorphemic, with *-e-* a separate morpheme.

Thinking in turn of (18), we're led to:

(29) The *-e-* in superlatives might be a D.

7. Suffixal superlatives vs. suffixal comparatives

The next question is whether or not comparative *-er* should be decomposed in parallel fashion to superlative *-est*, with one relevant question then being, are there irregular comparatives ending in just *-r* like the irregular superlatives ending in just *-st* in (27)? The answer might be no, with the only plausible candidate for a comparative in just *-r* being *more*.¹³

But *more* could be thought of as regular, i.e. as 'mo+er', with a misleading orthography (though with an irregular pronunciation perhaps attributable to phonological deletion of /e/). If so, then comparatives (at least those other than *more*) may contain no suffixal *-e-* parallel to that of superlatives.

If the *-e-* of superlatives is a definite D, then its absence in comparatives might be linked to the fact that comparatives cooccur with a definite article less readily than superlatives.¹⁴

This discrepancy between comparatives and superlatives concerning *-e-* is reinforced by an asymmetry between them having to do with PP-modifiers of N, of the sort seen in:

(30) a. an off-the-wall remark

¹¹The irregularity in *speak/spoken* then suggests that the *e* of *-en* must not have an analysis parallel to that of the *e* of *-ed*.

¹²Note Barbiers's (2007) arguments in favor of the superlative status of the Dutch counterpart of *first*.

¹³Unless *worse* = 'wo+r+s', with *-r-* the comparative and *-s-* part of superlative *-st*.

¹⁴Relevant, then, is the question of the status of:

i) The later you leave, the later you arrive.

which I shall leave open here.

- b. an over-the-top reaction
- c. his down-to-earth demeanor¹⁵
- d. an up-to-date paper
- e. an under-the-table payment

To my ear, the corresponding superlatives are marginally acceptable, to one degree or another:

- (31) a. ?the off-the-wall-est remark I've ever heard you make
 b. ??the over-the-top-est reaction I've ever seen
 c. ?the down-to-earth-est demeanor of anybody I know
 d. ?the up-to-date-est paper that you've ever written
 e. ??the under-the-table-est of all the payments

Whatever the exact acceptability of these, what's clear is that for me (and others) the corresponding comparatives are appreciably worse:¹⁶

- (32) a. *An off-the-wall-er remark than that I've never heard you make.
 b. *Your reaction was even over-the-top-er than his.
 c. *Your demeanor is invariably down-to-earth-er than mine.
 d. *You should definitely write up-to-date-er papers.
 e. *I wouldn't have guessed you could come up with an even under-the-table-er way of making a payment.

Minimal pairs can even be constructed, using the fact that English allows *the bigger of the two*, with the comparative suffix (yet a superlative-like interpretation), alongside *the biggest of the three*:

- (33) a. ?the off-the-wall-est of your three remarks
 b. ??the over-the-top-est of their three reactions
 c. ?the down-to-earth-est of their three responses
 d. ?the up-to-date-est of your three papers
 e. ??the under-the-table-est of the three payments
- (34) a. *the off-the-wall-er of your two remarks
 b. *the over-the-top-er of their two reactions
 c. *the down-to-earth-er of their three responses
 d. *the up-to-date-er of your three papers
 e. *the under-the-table-er of the three payments

8. The PP-superlative generalization

All of these PP-based superlatives become sharply unacceptable without the *-e-*:

- (35) *off-the-wall-st; *over-the-top-st; *down-to-earth-st; *up-to-date-st; *under-the-table-st

¹⁵Example from Sheehan (2017a, 137).

¹⁶How this fact might be integrated with Bobaljik (2012) remains to be determined.

There are some speakers who find the superlative and comparative examples equally bad; why is not yet clear. Of importance is the fact that no speakers, as far as I know, find the comparative examples more acceptable than the superlative ones.

Since in addition there is arguably no independent *-e-* morpheme with comparatives, the generalization that comes to the fore is:

(36) PP-superlatives of the sort seen in (31) and (33) are licensed (to one extent or another) by the *-e-* of superlatives.

Since the PP-modifiers in (30) are fully well-formed, we have the question why the superlatives of (31) and (33) are marginal, along with the question why the absence of *-e-* makes the corresponding comparatives of (32) and (34), as well as the superlatives of (35), ill-formed.

9. A possible FOFC-based account

The beginning of an account might be as follows. The comparatives of (32) and (34) and the superlatives of (35) are full-scale Final-Over-Final Condition violations, where the FOFC is characterized as follows:¹⁷

(37) FOFC rules out a configuration where a head-initial phrase is immediately dominated by a head-final phrase, in the same projection line.

The superlatives of (31) and (33) can semi-evade this FOFC restriction in a way keyed to *-e-*. The PP-modifiers of (30) fully evade it (in a way not keyed to *-e-*).

The superlative/comparative contrast with respect to PP-modifiers turns out to have a counterpart (to my ear and others) with English (phonologically) complex adjectives, which are known to resist comparative and superlative suffixation, as in:

(38) This book is more important/*importanter than that one.

But superlatives and comparatives resist unequally, as shown by:

- (39) a. ??the articulatest of the three (linguists)
b. ?the unstopabblest of the three (basketball players) (and similarly for other adjectives in *-able*)
c. ??the intelligentest of the three (students)
d. ?the ill-fatedest of the three (expeditions)
e. ?the importantest of those three papers
f. ?the fast-talkingest of the three (conmen)
g. ?the sure-footedest of the three (dancers)
- (40) a. *the articulator of the two (linguists)
b. *the unstopabler of the two (basketball players) (and similarly for other adjectives in *-able*)
c. *the intelligenter of the two (students)
d. *the ill-fateder of the two (expeditions)
e. *the importanter of those two papers
f. *the fast-talkinger of the two (conmen)
g. *the sure-footeder of the two (dancers)

¹⁷From Biberauer et al. (2017, 11); cf. Williams (1982, 160).

This suggests that FOFC can see phonological structure, as discussed in Sheehan (2017b, 95).¹⁸

10. *more* and *most*

In (36), I suggested that the greater acceptability of PP-superlatives as compared with PP-comparatives could be attributed to the *-e-* of *-est*. An interesting question is whether this view can be extended to the following set of contrasts:

(41) leftmost, rightmost, topmost, uppermost, outermost, innermost, northernmost, utmost, foremost, rearmost

(42) *leftmore, *rightmore, *topmore, *uppermore, *outermore, *innermore, *northernmore, *utmore, *foremore, *rearmore

Thinking of:

(43) the door that's (the) most to the left
an initial analysis of, for example, *the leftmost door* might be as in:

(44) the [TO THE left] most door
in which 'TO THE left' is akin to a preposed reduced relative.

The question now is why such an analysis would not be available with *more* in place of *most*. That is, why would (41) not generalize to (42)?

Taking (36) to be on the right track, one is led to rethinking (44) as follows, adding a silent E to (44):

(45) the [TO THE left] E most door
with E being a silent counterpart of superlative *-e-*,¹⁹ which is by previous discussion not present in comparatives, whence the impossibility of (42), on the reasonable assumption that superlative *-e-* can, as a kind of doubling, be merged above superlative *most*, but not above comparative *more*.

Let us note in passing a possible connection between superlative *-e-* and the *e-* of *enough*, given the following, from Leu (2008, note 31): "John Costello (p.c.) points out that there is evidence for considering *enough* bimorphemic, with *e-* (Germanic *ge* in *genug* 'enough') a perfective prefix, which would partly explain the non-initial stress of *enough* (and *genug*). If this is correct, then the syntax of *enough* may be closely related to the fact that the Germanic past participle prefix *ge-* is restricted to V-final contexts."

¹⁸Cf. the Government Phonology work of the 1980's, e.g. Kaye, Lowenstamm & Vergnaud (1990); also Dobashi (2003), Pöchtrager (2006; 2024), Kayne (2016, sects. 15, 16), and den Dikken and van der Hulst (2020).

¹⁹Why exactly the E here must be silent:

i) *the left emost door
needs to be determined, as must the reason for:

ii) *the leftlast/leftfirst door
against the background of:

ii) the last/first door to the left

In other words, the preposing of adjectives to *enough* (as opposed to other degree words), as in:

(46) big enough; *enough big
could be a property of the *e-* of *enough* (lacking in other degree words), in a way at least partially similar to the preposing seen in (45), as well as with the pronounced *-e-* of ordinary superlatives.

To what extent the three instances of *e* so far discussed (that of the past tense/participle, that of superlatives, and that of *enough*) are compatible with a maximally strong position on antihomophony within the functional subpart of the lexicon will depend on whether they all have exactly the same (abstract) phonology.²⁰

11. *First*, and more on *most*

Some English (not mine) allows *firstmost*. For example, the *OED* has, from 1998:²¹
(47) The sustainable improvement of the soil reaction is of firstmost importance.
At the same time, *firstmost* does not seem very parallel to *leftmost* or to the other items listed in (41). For example:

(48) Take the door that's (the) most to the left.
vs.

(49) *The improvement is of the/an importance that's most to the first.
Let us therefore look for an analysis distinct from that given in (45).

Independently of the acceptability for some of *firstmost*, *first* itself is already of interest to superlatives, insofar as it displays a behavior reminiscent of that of *one* as discussed by Perlmutter (1970), which I will now briefly illustrate. Perlmutter noted that *one* is unlike other numerals in ways.²² An example would be:

(50) The only two apples that look good are the pink ones.
(51) *The only one apple that looks good is the pink one.

With *one* and *two* unstressed, the contrast is sharp. In the spirit, though not in the letter, of Perlmutter (1970), let me take unstressed *one* in this context to obligatorily be silent, so that in contrast to (51), one can have:

(52) the only ONE apple that looks good...
which can plausibly be taken to necessarily underlie the familiar:
(53) The only apple that looks good is the pink one.

There is to my eye an arguably parallel contrast between *first* and other ordinals that can be seen in:

(54) Little Johnny is the second/*first tallest pupil in the class.
In the spirit of (52)/(53), the proposal is now that the following is available:
(55) Little Johnny is the FIRST tallest pupil in the class.

²⁰On antihomophony, cf. Johns (1992, 84), Embick (2003, 156) and Kayne (2019c, 137), among others.

²¹Cf. https://www.oed.com/dictionary/firstmost_adj for some other examples; also <https://www.wordsense.eu/firstmost/>.

²²Cf. also Barbiers (2007) and Kayne (2017b).

and that this structure necessarily underlies the familiar apparently simple superlative:
(56) Little Johnny is the tallest pupil in the class.

Similarly, consider:

(57) Our team is in last/first place in the standings right now.

(58) Our team is in second from last/*first place in the standings right now.

suggesting, in the above spirit, that a sentence like:

(59) Our team is in second place in the standings right now.

is to be understood as:

(60) ...is in second FROM FIRST place...

As a final set of examples arguably related to obligatory silent 'one', we have:²³

(61) John's height is twice/*once that of his brother.

(62) John can run twice/*once as fast as his brother.

supporting:

(63) ...is ONCE that of...

(64) ...run ONCE as fast as...

as underlying:

(65) John's height is (exactly) that of his brother.

(66) John can run as fast as his brother.

with the interesting twist that we get the same type of contrast as in (62) with overt *time*:

(67) John can run two times/*one time as fast as his brother.

leading, apparently, to:

(68) ...run ONE TIME as fast as...

as a potential alternative structure for (66). (These two alternatives, namely (64) and (68), are however virtually identical, if the proposal in Kayne (2014) is correct, to the effect that *once* is itself 'one TIME -ce'.)

12. Comparatives within Superlatives

Bobaljik's (2012, 49, 210) Containment Hypothesis takes superlatives to properly contain comparatives, with the formal expression of that hypothesis to some extent left open, and with a partial link to the Decompositionality Principle of Kayne (2005a, Appendix). In this section, without attempting to resolve the matter, I will discuss some facts from English that bear on Bobaljik's hypothesis. (The claim made above that English superlatives contain an *-e-* morpheme that comparatives do not contain will also be of relevance in the long run.)

My English (though perhaps not all English) readily allows sentences such as:

(69) The taller of those two buildings was designed by a famous architect.

in which the comparative form *taller* appears within a larger phrase *the taller of those two buildings* that feels superlative. In addition, for me (though not for all speakers) there is a restriction to dual:

²³Why exactly there is a contrast with the well-formed:

i) once a week

remains to be determined.

(70) *The taller of those three buildings was designed by a famous architect.
From *three* on up, I require the superlative form of the adjective, as in:

(71) The tallest of those three buildings was designed by a famous architect.
With *two*, the superlative form is for me marginally acceptable:

(72) ?The tallest of those two buildings was designed by a famous architect.
That there is a superlative character to (69) can be seen, I think, in the fact that, despite the comparative form *taller*, a *than*-phrase is hardly possible:

(73) *The taller of those two buildings than this one was designed by a famous architect.

This superlative character of (69), seen in addition in the felt similarity between (69) and (71), would seem to support some version of Bobaljik's Containment Hypothesis, in particular on the assumption that *taller* in (69) is a true comparative form, rather than being a superlative form 'in disguise'.

That *taller* in (69) is in fact a true comparative form is supported by discrepancies in behavior between it and *tallest*. One involves *very*:

(74) That's the very tallest of those three/?two buildings, isn't it?

(75) *That's the very taller of those two buildings, isn't it?

A second discrepancy has to do with ordinals:

(76) The second tallest of those three/?two buildings was designed by a famous architect.

(77) *The second taller of those three buildings was designed by a famous architect.

The discrepancy with ordinals carries over to *most* vs. *more*.²⁴ My English has:

(78) the more/?most intelligent of the two students

Adding an ordinal gives, holding interpretation constant:

(79) the second most/*more intelligent of the two students

On the interpretive side of things, we can note that Bobaljik (2012, 213), in the spirit of the Decompositionality Principle mentioned above, takes it to be impossible for there to be a single morpheme that would be interpreted as 'more than all (others)'. I unsurprisingly agree. Yet Bobaljik (2012, 210) takes it to be possible to have a morpheme interpreted as the less complex 'than all others'.

To my eye, this is still too complex, with ordinal examples like (76) of interest. If *the tallest* has an interpretation including 'than all others', *the second tallest* would presumably have to be as in the pretty complex 'than all the others except one'. How damaging this might (or might not) be to the idea that superlatives properly contain comparatives I leave as an open question.

13. *least*

²⁴ *Very* is often incompatible with *most*:

- i) the very smartest student
- ii) *the very most intelligent student

vs.

- iii) At *(the) very most,...

Alongside (41), with *leftmost* et al., there's no:

(80) *leftleast, *topleast, *outerleast...

This recalls Bobaljik's (2012, 214) point that cross-linguistically there seems to be no comparative suffix that would be interpreted as *less*, rather than as *more*. How best to understand this similarity (as well as the well-formedness of English *-less* in the sense of *without*) remains to be determined.

With regard to *least* vs. *most*, we can also quickly note:

(81) Most/*least of the time,...

(82) In most/*least cases,...

(83) That was a most/*least interesting talk.

(84) Most/*least people love syntax.

(85) For the most/*least part,...

(86) Mostly/*leastly, we're...

(87) Most/*least everybody loves syntax. (cf. *almost/*alleast*)

In addition, stress on the adjective is appreciably more natural w/ *most* than with *least* in:

(88) He says the most/least extreme things.

Concerning (83) we can further note:

(89) That was a most important book.

(90) That was a book of the utmost importance.

with this pair suggesting that we take (89) to be as in:²⁵

(91) ...a THE UT- most important book

If so, we would correctly not expect to have:

(92) *That was a finest book.

given the contrast between *utmost* and **ut-est*. Nor would we now expect to have, in a way parallel to (89):

(93) *That was a least important book.

given:

(94) *That was a book of the utleast importance.

Nor would we expect to find an exact counterpart of (89) in any Romance language, given the absence in Romance of *utmost*, *leftmost*....²⁶

References:

²⁵There might also be a silent TO, thinking of:

i) the leftmost door

ii) the door (the) most to the left

In addition, *ut-* may be closely related to *utter*, as in:

iii) an utter failure; utterly wrong

leading to the possibility of:

iv) ...a TO THE UTT-ER most important book

with this *-er* the same as that of *outer*.

²⁶Cf. the (apparent) absence in Romance of an exact counterpart of:

i) two and a half days

- Baker, M.C. (1988) *Incorporation. A Theory of Grammatical Changing*, University of Chicago Press, Chicago, Ill.
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