

SOME PROBLEMS OF *TEARU* SENTENCES

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1. *Tearu* sentences

By *tearu* sentences, we mean sentences like (1) (2). There is some semantic difference between (1) and (2), but it is not clear what it is.

(1) Nittei o kime tearu.

'The itinerary has been decided.'

(2) Nittei ga kime tearu.

It is, however, clear that while *nittei o kime* 'decide the itinerary' of (1) is a constituent, *nittei ga kime* of (2) cannot be a constituent. *Nittei o kime* 'fix the itinerary' is a V (equivalent to VP in the standard theory) because of sentences like (3).

(3) a. Taroo ga nittei o kime ta.

'Taroo fixed the itinerary.'

b. [_S [_{Tg} Taroo ga] [_V [_{To} nittei o] [_{TV} kime]]] ta.⁽¹⁾

Where Tg is an NP in the nominative case. It is marked by casemarker *ga*. V forms an S (i.e. sentence) together with the preceding Tg. To is an accusative case NP. It has casemarker *o*. TV is a transitive verb (phrase) that forms a V together with the preceding To.

Since *nittei o kime* 'decide on the itinerary' is a V, (1) can be analyzed as in (4).

(4) [_S [_V Nittei o kime] [_{V-S} tearu]].

Where V-S is a verb that forms an S together with the preceding V. Since *kime* 'decide' is a nonstative verb, and, like other nonstative verbs,

cannot take a Tg as its object, *nittei ga kime* cannot be a constituent. The most natural analysis of (2) would be (5), in which *kime tearu* is a constituent of category V (= VP) that takes a nominative subject.

(5) [_{Tg} Nittei ga] [_V kime [_{TV-V} tearu]].

Where TV-V is a verb that forms a V together with the preceding TV. Note that *tearu* belongs to two distinct syntactic categories, V-S in (4) (= (1)), and TV-V in (5) (= (2)). (4) (5) can have another NP as in (6) (7).

(6) Taroo wa [nittei o kime] tearu.

'As for Taroo, the itinerary is decided.'

(7) Taroo wa nittei ga [kime tearu].

(6) (7) are considered to derive from (8) (9) by topicalization of *Taroo ga*.

(8) Taroo ga nittei o kime tearu.

'Taroo has his itinerary fixed.'

(9) Taroo ga nittei ga kime tearu.

'Taroo has his itinerary fixed.'

Though (9) has two Tg's, its *Taroo ga* is not an argument of the predicate *kime tearu* 'have ... fixed'.⁽²⁾ (9) is considered to derive from (10) by Subjectivization of genitive case NP *Taroo no* (cf. Kuno 1973).

(10) Taroo no nittei ga kime tearu.

'Taroo's itinerary is decided.'

(10) is considered to be a complete sentence that can be analyzed as in (11).

(11) Taroo no nittei ga [_V [_{TV} kime] [_{TV-V} tearu]].

Note that (8) (9) (10) do not imply that the agent of *kimeru* 'decide' is Taroo. This is clear with examples of *tearu* sentences like (12) (14) (15). (12) is not acceptable. If we want to say that Mother is the agent of making the dinner, (13) should be used instead of (12).

(12) *Okaasan ga yuuhan o tukut tearu.

'Mother has made our dinner.'

Where *tukut tearu* is morphologically *tukur tearu* 'have ... be made'.

(13) Okaasan ga yuuhan o tukut teiru.

'Mother has made our dinner.'⁽³⁾

Where *tukut teiru* derives from *tukur teiru* 'have made ...'.

(14) does not even imply that someone bent an existing road.

(14) Kono miti ga sokode mage tearu.

'This road is bent there.'

It may be that it has always been bent there since it was first constructed. But it definitely implies that someone is responsible for the fact that it is bent there. If the road was bent by a landslide, (14) cannot be used. Similarly, (15) does not imply that someone opened the church gates which had been closed before.

(15) Kyookai no mon ga ake tearu.

'As for the church, it has its gates open.'

The gates may have been open ever since the church was first constructed. But (15) entails that someone is responsible for the fact that they are open. It may be that someone opened them with his own hands, or made someone else open them, or that someone designed the church with gates that cannot be closed. (14) (15) do not have words that indicate their agents (those who are responsible for the fact that the road is bent there or that the church gates are open), but it is impossible to add another subject NP to them. For example, we cannot add an agent to (14) as in (16).

(16) a. *Karera ga kono miti ga sokode mage tearu.

'They bent this road at that place.'

b. *Karera wa kono miti ga sokode mage tearu.

In other words, (10) (14) (15) are complete sentences with no ellipsis. (10) (14) can, therefore, be analyzed syntactically as in (17a) (18a), and their semantic representations might be (17b) (18b).⁽⁴⁾

(17) a. Taroo no nittei ga [_V [_{TV} kime] [_{TV.V} tearu]].

b. (∃x) [tearu (decide (x, n))]

Where "(∃x)" is an existential quantifier that binds variable *x*. *n*

refers to *Taroo no nittei* 'Taroo's itinerary'.

(18) a. *Kono miti ga* [_V [_{TV} *sokode mage*] *tearu*].

b. $(\exists x)$ [*tearu* (*bend-there* (x, m))]

Where m refers to *kono miti* 'this road'.

Tearu of (17) (18) belongs to the syntactic category TV-V because it is combined with a TV (transitive verb) to form a V. Its semantic representation will be like (19).⁽⁵⁾

(19) $\lambda \beta \lambda y (\exists x)$ [*tearu* ($\beta(x, y)$)]

Where β is a variable ranging over the set of two-place predicates.

Now, consider sentences like (20) (21), in which a To (i.e. an accusative case NP) is used instead of a Tg (i.e. a nominative case NP).

(20) *Kono miti o mage tearu.*

'This road is bent.'

(21) *Taroo ga nittei o kime tearu.* (= (8))

'Taroo has his itinerary fixed.'

(21) does not necessarily imply that it was Taroo who fixed the itinerary. Sentences like (21) are sometimes claimed to be ambiguous between structures like (22a) and (22b) (cf. Kawasaki 1984).

(22) a. [_{Focus} *Taroo ga*] [_S *PRO nittei o kime tearu*]

' $Taroo_i$ has such a property that someone/ he_i has fixed the/ his_i itinerary.'

b. [_S *Taroo ga nittei o kime tearu*]

' $Taroo_i$ has fixed the/ his_i itinerary.'

It was as a discourse phenomenon that the notion "focus" was introduced into grammar. It is not quite clear what a focus is in sentence grammar. (21) does not imply that Taroo fixed the itinerary. It may but need not be Taroo who fixed it. In other words, there is no reason that (21) should be treated as ambiguous. It could be analyzed as in (23a), which derives from (23b) by a kind of Subjectivization. Its semantic representation can be (23c) if we ignore the semantic effect of Subjectivization.

- (23) a. Taroo ga [_S [_V nittei o kime] tearu].
 b. [_S [_V Taroo no nittei o kime] [_{V-S} tearu]].
 c. ($\exists x$) [tearu (decide (x, n))]

Where *n* refers to *Taroo no nittei* 'Taroo's itinerary.'

While *tearu* of (17) (18) is a TV-V, *tearu* of (20) (23) is a V-S because it is combined with a V to form an S. The meaning of V-S *tearu* can be represented as in (24).

- (24) *tearu*, V-S $\Rightarrow \lambda P (\exists x) [\text{tearu } (P(x))]$

Where P is a variable that ranges over the set of one-place predicates. Our analysis presented above treats (23a) and (25a) as syntactically distinct but semantically equivalent.

- (25) a. Taroo ga [_S nittei ga [_V kime [_{TV-V} tearu]]].
 b. Taroo no nittei ga [_V kime [_{TV-V} tearu]].

Since *tearu* is a V-S, it should be possible for it to be attached to an intransitive verb. (26) is an example in which *tearu* is combined with an intransitive verb phrase *sakuya yoku nemur* 'have a good sleep last night' (cf. Inoue 1976).

- (26) a. Sakuya yoku nemut tearu node kyoo wa nemuku nai.
 'Δ is not sleepily because Δ had a good sleep last night.'

- b. [_S [_V sakuya yoku nemur] tearu] node kyoo wa nemuku nai.

Where the sequence *nemur tearu* is the underlying form of *nemut tearu*.

Nemur 'sleep' and *sakuya yoku nemur* 'sleep well last night' of (26) are both intransitive. Sentences like (27) (Kawasaki 1983) are bad because *tearu* belongs neither to category S-S nor to category V-V.

- (27) a. *Doa ga ai teat ta.
 'The door was left open.'
 b. * [_S [_S doa ga ak] tear] ta.
 c. * [_S doa ga [_V [_V ak] tear]] ta.

Where *ak* 'open' is an intransitive verb. *tear* is the basic form of *tearu*.

The latter is the present tense form. *ak tear ta* (if grammatical) would be phonetically realized as *ai teat ta* as in (27a).

Tearu requires that the preceding V, TV refer to a volitional action. (28) is unacceptable because *miti o matigae* 'take a wrong road' is normally involuntary.

- (28) a. *Miti ga/o matigae tearu.
 'Δ took a wrong way.'
 b. Miti ga [_V [_{TV} matigae] tearu].
 c. [_S [_V miti o matigae] tearu].

The only exception where *tearu* can occur as an S-S is when the preceding verb ends with passive form *rare* as in (29). (29) is practically synonymous with (30) (31), which are *tearu* sentences without passive form *rare*.

- (29) a. Soko ni hi no nai sutando ga sue rare teat ta. (Masuoka 1983)
 'A desk lamp with no light was placed there.'
 b. [_S [_S Soko ni hi no nai sutando ga sue rare] tear] ta.
 (30) a. Soko ni hi no nai sutando ga sue teat ta.
 'A desk lamp with no light was placed there.'
 b. [_S Soko ni hi no nai sutando ga [_V [_{TV} sue] tear]] ta.
 (31) a. Soko ni hi no nai sutando o sue teat ta.
 'A desk lamp with no light was placed there.'
 b. [_S [_V Soko ni hi no nai sutando o sue] tear] ta.

Compare (29) with passive sentence (32).

- (32) a. Soko ni hi no nai sutando ga sue rare ta.
 'A desk lamp with no light was placed there.'
 b. Soko ni [_S hi no nai sutando ga [_V [_{TV} sue] rare]] ta.

While (29) describes a state of affairs, (32) describes an event though the translation does not distinguish them.⁽⁶⁾ In the following sections, we will see if Reflexivization and Subject Honorification, which are considered to apply to V's, will support our analysis presented above.

2. Reflexivization and *tearu* sentences

Reflexivization is a semantic interpretation rule that applies to semantic representations of V's (or VP's in the standard theory) that contain reflexive form *zibun* (cf. Gunji 1983, Muraki 1985). (33) is its formulation.

(33) Reflexivization (α) = $\lambda x [\lambda zb [\alpha (x)] (x)]$

Where α is a semantic representation of a V that does not contain variable x but contains variable zb . Zb symbolizes reflexive form *zibun*.

(34), for example, has a V that contains *zibun*.

(34) Mary ga [_V *zibun o bengosi*] ta.

'Mary defended herself.'

Where *bengosi ta* 'defended' is morphologically *bengos ta*.

If its V *zibun o bengos* 'defend self' undergoes Reflexivization, its semantic representation (35a) will be turned into (35b), and (36) will be the interpretation of (34).

(35) a. $\lambda x [\text{defend}(x, zb)]$

b. $\lambda x [\text{defend}(x, x)]$

(36) defend (m, m)

Where m refers to Mary.

Reflexivization is optional. If it does not apply to (35), *zibun* will eventually be interpreted as referring to the speaker. Japanese Reflexivization is not a clausemate rule. If *zibun* is contained in more than one V, ambiguity may result. For example, *zibun* in (37) is contained in both V2 and V1.

(37) John ga [_{V1} Mary ni [_{V2} *zibun o bengos*] ase] ta.

'John made Mary defend himself/herself.'

Where *bengos ase* 'make ... defend ...' is derived from *bengos sase* by consonant deletion.

If V2 undergoes Reflexivization, semantic representation (38a) of V2 is mapped into (38b), and (38c) will be the interpretation of (37).

(38) a. $\lambda y [\text{defend}(y, zb)]$

- b. $\lambda y[\text{defend}(y, y)]$
 c. $\text{cause}(j, m, \text{defend}(m, m))$

Where j, m refer to John and Mary respectively.

But if it applies to V1, (39a) is mapped into (39b), and (37) will mean (39c).

- (39) a. $\lambda x[\text{cause}(x, m, \text{defend}(m, zb))]$
 b. $\lambda x[\text{cause}(x, m, \text{defend}(m, x))]$
 c. $\text{cause}(j, m, \text{defend}(m, j))$

If Reflexivization does not apply to any of the V's, *zibun* will be understood to refer to the speaker.

Tearu sentences pose a problem for Reflexivization. If (40a) has structure (40b), and if the semantic representation of its V is (41a), Reflexivization (33) would map it into (41b), and (42) should be a reading of (40).

- (40) a. John ga zibun no ie ni yon dearu.

'John has been called to self's house.'

Where *yon dearu* 'has been called' is underlyingly *yob tearu*.

- b. John ga [_V [_{TV} zibun no ie ni yob] tearu].

- (41) a. $\lambda x(\exists y)[\text{tearu}(x, \text{call}(y, x, zb\text{'s house}}))]$
 b. $\lambda x(\exists y)[\text{tearu}(x, \text{call}(y, x, x\text{'s house}}))]$

- (42) $(\exists y)[\text{tearu}(j, \text{call}(y, j, j\text{'s house}}))]$

But (40) does not mean (42). In fact, (40a) is awkward as an independent sentence, but if acceptable, *zibun* has to refer to the speaker. (43), which embeds (40), is not awkward, but its *zibun* can refer only to the matrix subject Mary, though Reflexivization (33) predicts that it should be ambiguous between John and Mary.

- (43) a. Mary ga [_S John ga zibun no ie ni yon dearu] to it ta.

'Mary said that John has been called to self's house.'

- b. Mary ga [_{V1} [_S John ga [_{V2} zibun no ie ni yob tearu]] to iw] ta.

Where *iw ta* 'say PAST' is phonetically *it ta*.

(44) - (46) are also examples with an embedded *tearu* sentence that contains *zibun*, but none of the V2's (i.e. V's of the embedded *tearu* clauses) can undergo Reflexivization.

(44) Mary wa [_{V1} [_S John ga [_{V2} *zibun no ie ni syootaisi tearu*]] to iw] ta.

'Mary said that John had been invited to her/*his house.'

(45) Mary wa [_V [_S John ga [_V *zibun no kaisya no tameni baisyuusi tearu*]] to iw] ta.

'Mary said that John had been bribed for the sake of her/*his company.'

(46) Mary wa [_V [_S 3 nin no yoogisya ga [_V *zibun no mati no keisatusyo ni ryuutisi tearu*]] to iw] ta.

'Mary said that 3 suspects had been taken into custody at the police station of her/*their town.'

Tearu sentences are thus exceptions to Reflexivization.

3. Subject Honorification of *tearu* sentences

Subject Honorification adds morphemes *o-* and *-ninaru* to the main verb, and shows respect toward the referent of the subject NP. For example, (47a) (48a) may undergo Subject Honorification as in (47b) (48b).

(47) a. Kaityoo ga [_V *doitugo o* [_{TV} *hanasu*]].

'The president speaks German.'

b. Kaityoo ga [_V *doitugo o* [_{TV} *o-hanasi-ninaru*]].

(48) a. [_{Tn} Kaityoo ni] [_{nV} *okane ga takusan* [_{Tg-nV} *aru*]].

'The president has a lot of money.'

b. Kaityoo ni wa [_{nV} *okane ga takusan* [_{Tg-nV} *o-ari-ninaru*]].

Where a Tn is an NP in the dative case (i.e. an NP with case marker *ni*). nV is similar to V except that it takes a Tn as its subject (i.e. a dative subject). Tg-nV is similar to TV except that it takes as its complement a Tg instead of a To, and that the resultant verb phrase is an

nV. *Kaityoo ni* 'the president' is topicalized in (b).

(47b) (48b) show the speaker's respect toward *kaityoo* 'the president'. It is generally accepted that Subject Honorification has the two properties of (49).

(49) a. Subject Honorification applies to S's.

b. Subject Honorification shows respect to the referent of the subject NP.

(49a) is inevitable for any grammar that assumes that V is not a recursive symbol. If V and nV are recursive symbols, (49a) does not hold (cf. Muraki 1984). If Subject Honorification is to show respect to the referent of the subject NP, it can be better analyzed as an interpretation rule that applies to semantic representations of V's and nV's (just like Reflexivization). (49b) is generally true. Both (47b) and (48b) obey (49b). But *tearu* sentences are exceptions to (49b).

(50a), which can be analyzed as (50b), can undergo Subject Honorification as in (50c), but the latter does not indicate respect toward *kaityoo* 'the president.' It honors the host of the party who invited the president.

(50) a. *Kaityoo ga yon dearu.*

'The president has been invited.'

b. *Kaityoo ga* [_V *yob* [_{TV.V} *tearu*]]

c. *Kaityoo ga* [_V *yon de o-ari-ninaru*].

Where *yon de-o-ari-ni-naru* is the Subject Honorification of *yob tearu* 'have ... called.'⁽⁷⁾

In order to show respect toward the president, we have to use (51a) or (52a) instead of (50c).

(51) a. *Kaityoo ga o-yobi-si tearu.*

'The president has been invited.'

b. *Kaityoo ga* [_V [_{TV} *yob*] *tearu*].

(52) a. *Kaityoo o o-yobi-si tearu.*

'The president has been invited.'

b. [_V kaityoo o [_{TV} yob]] tearu.

(51a) (52a) are derived from (51b) (52b) respectively by Object Honorification of *yob* 'call, invite.'

Object Honorification typically applies to TV's and shows respect to the referent of the object (or nonsubject) or shows condescension/humility on the part of the subject. *Yob* of (53a) is a TV, and it may undergo Object Honorification as in (53b).

(53) a. Taroo ga [_V kaityoo o [_{TV} yobu]].

'Taroo invites the president.'

b. Taroo ga [_V kaityoo o [_{TV} o-yobi-suru]].

We are now in a dilemma. If Subject Honorification is to show respect toward the subject, then *kaityoo ga* 'the president' of (50) cannot be the subject because (50c) does not show respect to the president. But then, we have to have two distinct structures in each of (54), the subject-predicate structure and something else.

(54) a. [_S Tg V]

b. [_S Tn nV] (cf. (48b))

Tg's of (47a) (53a) and Tn of (48) would be subjects, but those of (50a) (55) (= (25b)) would be nonsubjects even though they appear to be in the same structure.

(55) Taroo no nittei ga kime tearu.

'Taroo's itinerary has been decided.'

It is clear that the following cannot all be correct.

(56) a. Subject Honorification shows respect toward the referent of the subject.

b. Tg of [_S Tg V] and Tn (i.e. NP in the dative case) of [_S Tn nV] are the subject of the sentence.

c. One of the possible structures of *tearu* sentences is [_S Tg V]

We do not have an immediate answer to this problem. There are, however, examples that would cast doubts on (56a). Consider sentences like (57) -

(63), whose (b) sentences are Subject Honorification of (a) sentences.

(57) a. Zikan ga *aru*.

'Δ has time.'

b. Zikan ga *o-ari-ninaru*.

(58) a. Mada zikan ga *kakari* masu ka?

'Will it take some more time?'

b. Mada zikan ga *o-kakari-ninari* masu ka?

'Is it still some time before it is finished?'

(59) a. Bessoo ga *yake* ta.

'The country house has been burnt down.'

b. ? Bessoo ga *o-yake-ninar* ta.

(60) a. Bessoo ga *yake te simaw* ta.

'The country house has been burnt down.'

b. Bessoo ga *yake te o-simawi-ninar* ta.

(61) a. Kizu ga *naor* ta.

'The wound was healed.'

b. Kizu ga *o-naori-ninar* ta.

(62) a. Kuruma ga *koware* ta.

'The car broke down.'

b. *Kuruma ga *o-koware-ninar* ta.

(63) a. Kuruma ga *koware te-simaw* ta.

'The car has broken down.'

b. Kuruma ga *koware te o-simawi-ninar* ta.

(64) a. Sore o yomi-owaru mae ni kyuuka ga *owar te-simaw* ta nodesu.

'The vacation was over before the book was finished.'

b. Sore o yomi-owaru mae ni kyuuka ga *owar te o-simawi-ninar* ta nodesu.

We do not know the precise conditions on Subject Honorification, but it is clear that (56) is over simplistic. It seems that Subject Honorification requires that the event described is personally related to the person

about whom the statement is made. Empathy is an important factor. (62b) is bad, but (61b) is acceptable because *kizu* 'the wound' is much more personal than *kuruma* 'the car'. (63b) (64b) are acceptable probably because *te-simaw* 'have something done' makes the sentence an empathic statement for the person most closely affected by the described event (the owner of the car, the vacation, etc.). (56a) should be reconsidered before we do anything about (56b) (56c).

4. Conclusion

Two kinds of structures should be distinguished in the so-called *te-aru* sentences, in which *te-aru* is tentatively assigned categories V-S and TV-V. But this may have to be revised because *tearu* sentences show peculiar behavior in connection with Reflexivization and Subject Honorification. Both Reflexivization and Subject Honorification are empathic phenomena governed by the Principle of Empathy. It is not clear why *tearu* sentences are exceptional with respect to these rules.

Notes

(1) Past tense morpheme *ta* is used here, but our syntactic analysis will ignore it to avoid complication.

(2) (8), in contrast with (6), is semantically equivalent to (i).

(i) Nittei ga kime tearu no wa Taroo dearu.

'It is Taroo whose itinerary has been fixed.'

This is because of the general principle (ii).

(ii) In stative sentences, subject NP-*ga* phrase represents new information.

(3) (13) is ambiguous. It also has the progressive reading that Mother is making our dinner.

(4) The only way to indicate the agent of (10) (14) is the use of agent marker *niyotte* 'by' as in (i) (ii).

(i) Taroo no nittei ga [_V [_{Ty} ryokoosya niyotte] [_{Ty-V} kime tearu]].

'Taroo's itinerary is decided by the travel agent.'

(ii) Kono miti ga [_V [_{Ty} karera niyotte] [_{Ty-V} soko de mage tearu]].

'This road is bent there by them.'

Where Ty is an NP with agentive/instrumental particle *niyotte* 'by'. A Ty-V forms a V together with a Ty.

Sentences like (i) (ii) sound a little awkward but are considered acceptable. Note that the structure of (i) (ii) is similar to that of direct passives (iii) (iv), but it is not obvious that *niyotte* phrases in *tearu* sentences denote the agent in the same sense as those of direct passives.

(iii) Taroo no nittei ga [_V ryokoosya niyotte [_{Ty-V} kime [_{TV-TyV} rare]]] ta.

'Taroo's itinerary was decided by the travel agent.'

(iv) Kono miti ga [_V [_{Ty-V} karera niyotte [_{Ty-V} sokode mage rare]]] ta.

'This road was bent there by them.'

While *ryokoosya* 'travel agent' *karera* 'them' of (iii) (iv) are clearly the agent, those in (i) (ii) are more like an instrument. (i) (ii) do not seem to preclude the existence of an agent besides those denoted by the *niyotte* phrases. Existence of sentences like (i) (ii) will remain a problem that needs further study.

- (5) If we analyze *tearu* sentences like direct passives as in (i) (ii) of note 4, *tearu* will belong to the category TV-TyV, the same category as that of direct passive *rare*, and its semantic representation will contain no existential quantifier as in (i) below (cf. Muraki 1985/3).

(i) *tearu*, TV-TyV $\Rightarrow \lambda \beta \lambda y \lambda x$ [*tearu*(x, y, β (y, x))

- (6) We might derive (30) from (29), and (i) (= (25b)) from (ii) by deletion of passive *rare*.

(i) Taroo no nittei ga [_V [_{TV} kime] *tearu*].

'Taroo's itinerary is decided.'

(ii) Taroo no nittei ga [_V [_V kime *rare*] *tearu*].

'Taroo's itinerary is decided.'

Such possibility, however, will not be pursued in this paper.

- (7) If the predicate consists of two verbs combined by morpheme *te*, the morphological/phonological change of Subject Honorification occurs only on the right side of *te*. For example, Subject Honorification may apply to the V *tegami o kai te-simaw* 'finish writing the letter' of (i), but only the form *simaw* 'finish' undergoes the change as in (ii).

(i) Kaityoo wa [_V *tegami o kai te simaw*] ta.

'The president has already written the letter.'

Where *kai te simaw* 'finish writing' is morphologically *kak te simaw*.

(ii) Kaityoo wa [_V *tegami o kai te o-simawi-ninar*] ta.

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