

- b. Janet memecahkan cangkirnya.
Janet MEN.break-KAN cup.her
'Janet broke her cup.'
- (6) a. Wajahnya putih.
face.his white
'His face is white.'
- b. Ia memutihkan wajahnya.
3sg MEN.white-KAN face.his
'He whitened his face.'
- If suffixed by *-kan*, transitive roots become benefactive rather than causative.
- (7) a. Tika memanggang roti itu untuk Erik. (Son&Cole (2008: 124))
Tika MEN.bake bread the for Erik
'Tika baked the bread for Erik.'
- b. Tika memanggangkan Erik roti itu
Tika MEN.bake-KAN Erik bread the
'Tika baked Erik the bread.' NOT 'Tika caused Erik to bake bread.'
- (8) a. John baked bread for Mary.
b. John **made** Mary bake bread. (8a) ≠ (8b)
- (9) a. John-wa Mary-no tame ni pan-o yak-ta.
John-TOP Mary-GEN sake for bread-ACC bake-PAST
'John baked bread for Mary.'
- b. John-wa Mary-ni pan-o yak-(s)ase-ta.
John-TOP Mary-DAT bread-ACC bake-SASE-PAST
'John caused Mary to bake bread.' (9a) ≠ (9b)

- **Question 1**: *Make* and *-(s)ase* constitute causative constructions regardless of the transitivity of the root. On the other hand, *-kan* produces causative constructions from unaccusative and adjectival roots (but not from unergatives), while it yields benefactive (not causative) constructions from transitives. Why?
- **Answer**: Since *-kan* is P and appears lower than the root, it can Case-license only an internal argument such as theme and benefactive; it cannot Case-license an external argument of unergative and transitive predicates.

3. Prepositional *-kan* and *of* in English

- *-kan* in (10c) and (11c) functions on a par with *of* in (3b) and (4b) and the independent Ps in (10b) and (11b); it Case-licenses a DP argument that thematically corresponds to a complement clause. (Sneddon (1996: 61, 72, 98, 268), Son and Cole (2008: 122))
- (10) a. Saya berpikir bahwa dia pencuri.
I think that he thief
'I think that he is a thief.'

b. Saya berpikir **tentang** sukses.
I think of success
'I think of success.'

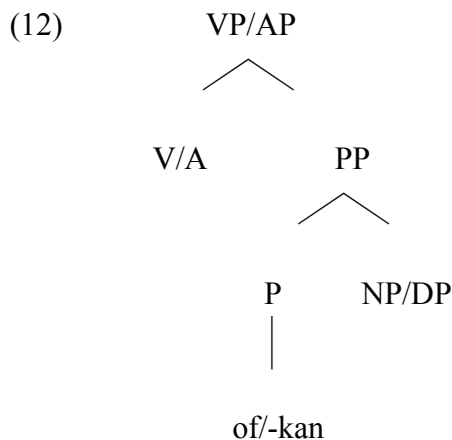
c. Saya me**bikirkan** sukses.
I MEN.think-KAN success
'I think of success.'

(11) a. Saya bangga bahwa saya adalah muslim
I proud that I am a Muslim.
'I'm proud that I'm a Muslim.'

b. Pak Hasrun bangga **akan** anaknya.
Mr. Hasrun proud of son.his
'Mr. Hasrun is proud of his son.'

c. Pak Hasrun mem**banggakan** anaknya.
Mr. Hasrun MEN.proud-KAN son.his
'Mr. Hasrun is proud of his son.'

- *Make* and *sase* contribute to the causative meanings in (1) and (2); they are causative 'predicates.'
- *Of* in (3) and (4) and *-kan* in (10) and (11) do not cause any violation of the UTAH.
- *Of* in (3) and (4) and *-kan* in (10) and (11) are semantically null.
- **Question 2**: If *-kan* in (5)-(7) is the same as the one in (10) and (11), it follows that the causative and benefactive meanings in (5)-(7) should not originate in *-kan*. Then, where do they come from?
- **Answer**: *Of* and *-kan* (and Ps in general) appear lower than V/A. *-kan* can Case-license a DP argument within the projection of the V/A, which otherwise could not appear there; it changes the arity of the V/A.

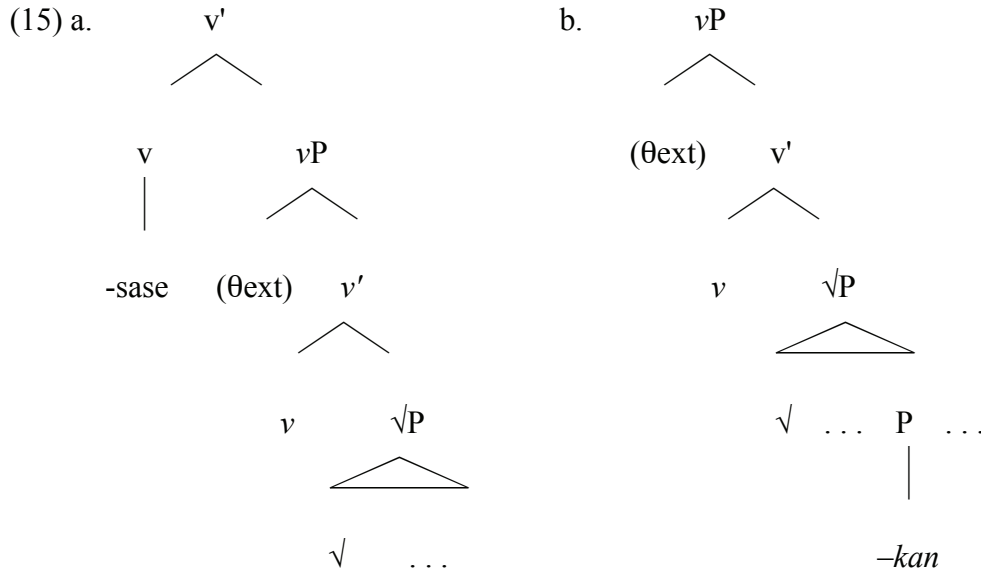


- Ps are selected by Vs rather than selecting bare Vs. (Koopman (1994: 284))

(13) a. I will/can sing this song.
b. I made/let Mary visit her mother.
c. *without Mary see Bill

- d. *He insists on have his way.
 (14) a. John depends on his mother.
 b. John went on.

4. Configurational differences between the verbal causativizer *-sase* and the prepositional affix *-kan*



-Sase selects a *vP*; it has an external argument (θ_{ext}) in its complement domain. (cf. Shibatani (1976a,b), Svenonius (2005), Miyagawa (1998), Marantz (1997), Kratzer (1996) etc.)

- *-kan* appears lower than the root ($\sqrt{\quad}$); *-kan* can only Case-license an internal argument.

5. Answers to Questions 1 & 2

5.1 Why unaccusatives/adjectives become causative but unergatives cannot

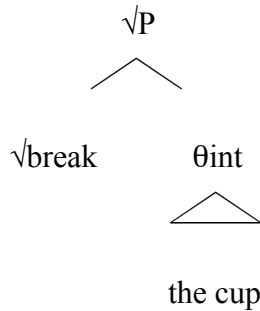
- Many of the unergative verbs in Indonesian have the form *ber* + N as exemplified in (16). They resist suffixation by *-kan*, though there are some exceptional cases as given in (17).

- (16) a. bertopi 'wear a hat' (Sneddon (1996: 61-65))
 BER-hat
 b. berkuda 'ride a horse'
 BER-horse
 c. berbohong 'tell a lie'
 BER-lie

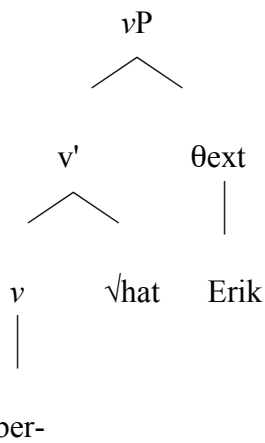
- (17) a. berhenti 'stop' (Sneddon (1996: 74), Chonan (2009))
 BER-stop
 b. memberhentikan 'dismiss'
 MEN.BER-stop-KAN
 c. menghentikan 'stop'
 MEN.stop-KAN

- Hale and Keyser's (1993, 2002) analysis can naturally apply to N-based *ber*-verbs as in (18b), with *ber-* as the light verb *v* (projections of category-deciding heads are removed for ease of illustration).

(18) a. Unaccusative/Adjective => (5a) Cangkirnya pecah.
'The cup broke/is broken.'

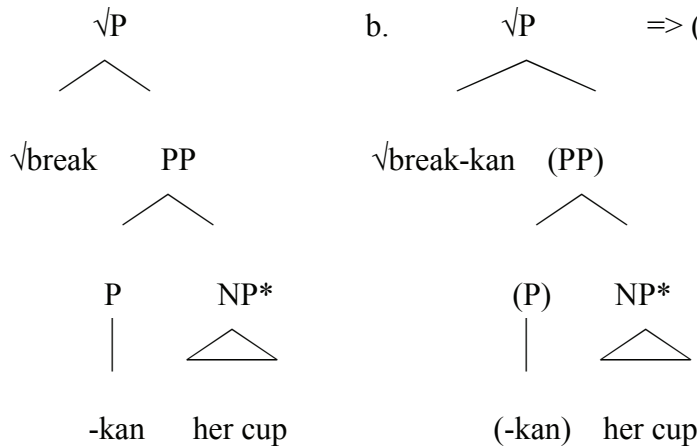


b. Unergative => Erik bertopi.
'Erik wears a hat.'

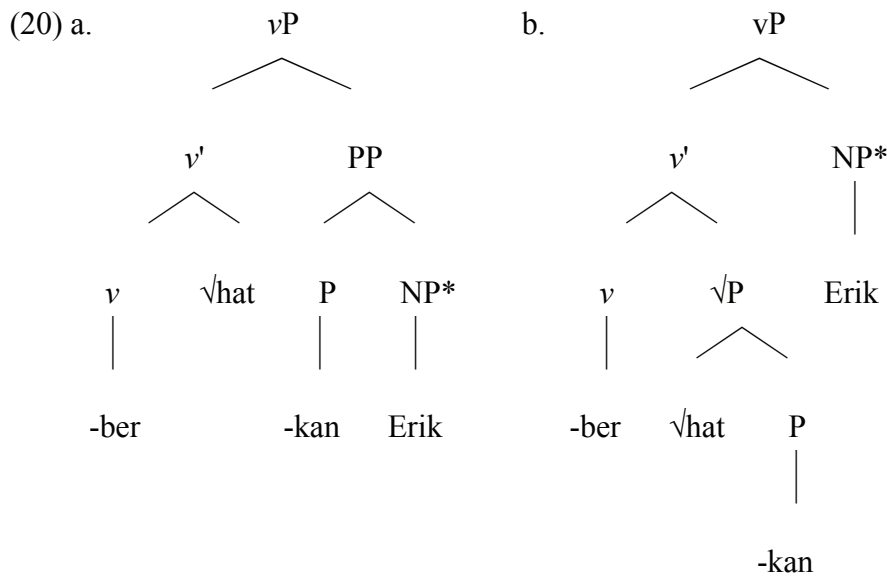


- The internal argument of $\sqrt{\text{break}}$ in (18a) moves to spec-TP for Case/EPP reasons.
- So does the external argument of *ber*- $\sqrt{\text{hat}}$ in (18b).
- If the internal argument of $\sqrt{\text{break}}$ (NP*) first merges with *-kan* as in (19a), it is Case-checked by *-kan* within the $\sqrt{\text{P}}$, and the spec-TP position is available for an external argument; hence, the whole construction is causative. Since *-kan* is affixal, it needs to incorporate into the root as in (19b) (P incorporation in Baker's (1988) sense).

(19) a. b. => (5b) Janet memecahkan cangkirnya.
'Janet broke her cup.'

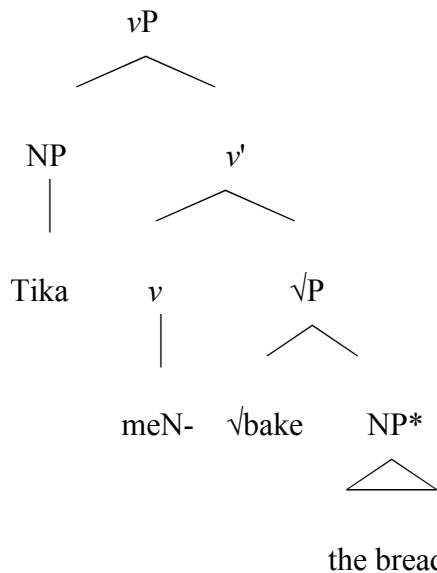


- Suppose that *-kan* appears with the unergative predicate in (18b). We should consider (20a,b), but neither is legitimate. Specifically, *-kan* in (20a), which is an affix, cannot incorporate into the root $\sqrt{\text{hat}}$. *-kan* in (20b) can incorporate into the root, but it has no chance to Case-license NP*.



5.2 Why transitives become benefactive rather than causative

(21) <==(7a) Tika memanggang roti itu untuk Erik.
'Tika baked the bread for Erik.'



- The standard analysis of the prefix *meN-* is that it is a verbalizing as well as accusative Case-checking head (cf. Cole and Harmon (2005), Son and Cole (2008)). But *meN-* quite productively attaches to adjectival roots and forms inchoative verbs as in (22) (cf., Sneddon (1996: 66)).

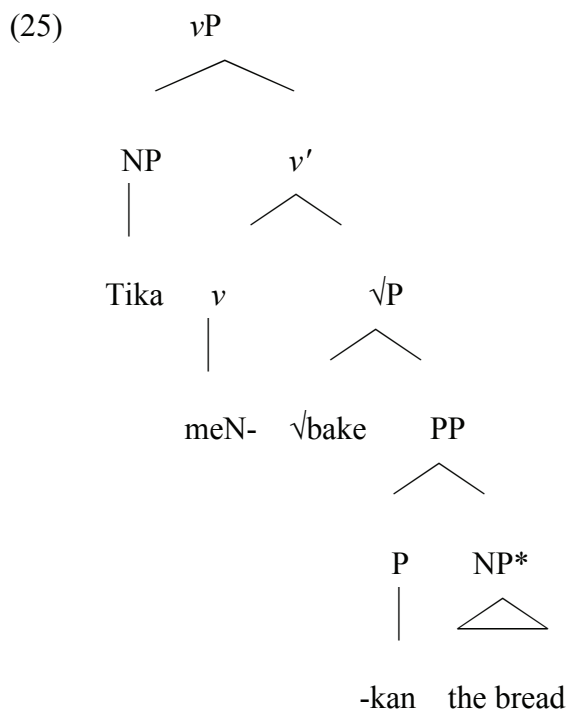
(22) Wajahnya menutih.
face.3SG MEN.white
'His face became white.' (cf. (7a, b))

- Hence, I assume that (i) *meN-* is a verbalizing functional head without a Case-checking ability; (ii) *meN-* introduces an external argument, and (iii) transitive roots like *panggang* (bake) have a potential to check accusative Case.
- The Case-checking potential is activated only when it becomes verbal owing to *meN-*, just as the root *destr-* in English can check accusative Case only if it becomes verbal as shown in (23).
- *Depend-*, on the other hand, does not have a potential to check accusative Case; hence (24b) is ill-formed even if it becomes verbal.

- (23) a. The enemy destroyed the city.
 b. *The enemy destroyed of the city
 c. the enemy's destruction of the city

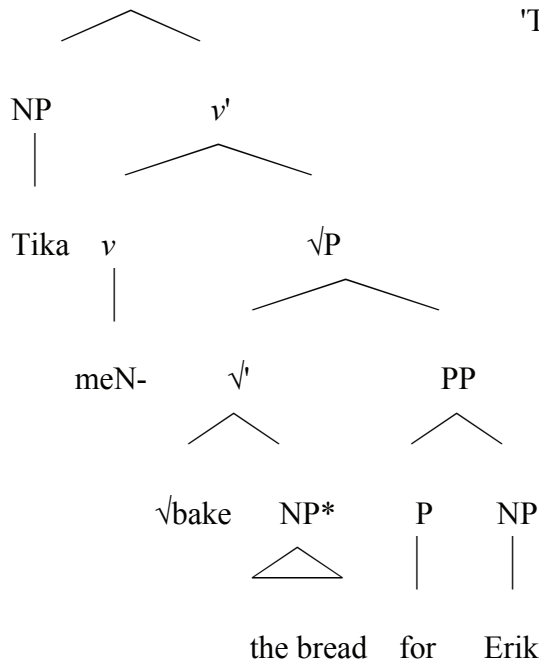
- (24) a. John depends on his father.
 b. *John depends his father.
 c. John's dependence on his father

- I thus assume that NP* in (21) is Case-checked by $\sqrt{\text{bake}}$ and the external argument *Tika* moves to spec-TP.
- If NP* in (21) first merges with *-kan* as in (25), the Case-checking feature of the verb *meN-* $\sqrt{\text{bake}}$ remains unchecked; hence, (25) does not converge, just as 'Tika baked of the bread.' is ungrammatical.

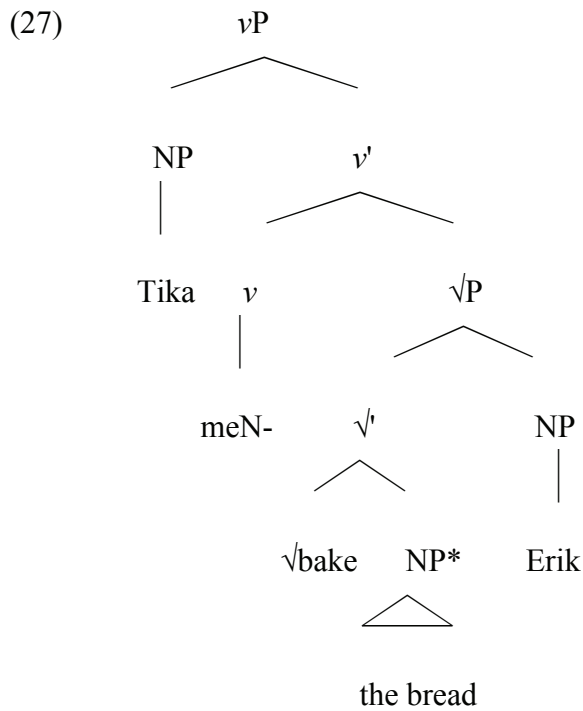


- PP benefactives like (7a) can be analyzed on a par with (21), as in (26). NP* is Case-checked by $\sqrt{\text{bake}}$; the beneficiary *Erik* is Case-checked by the P; and *Tika* moves to spec-TP for Case/EPP reasons.

(26) vP \Rightarrow (7a) Tika memanggang roti itu untuk Erik
'Tika baked the bread for Erik.'

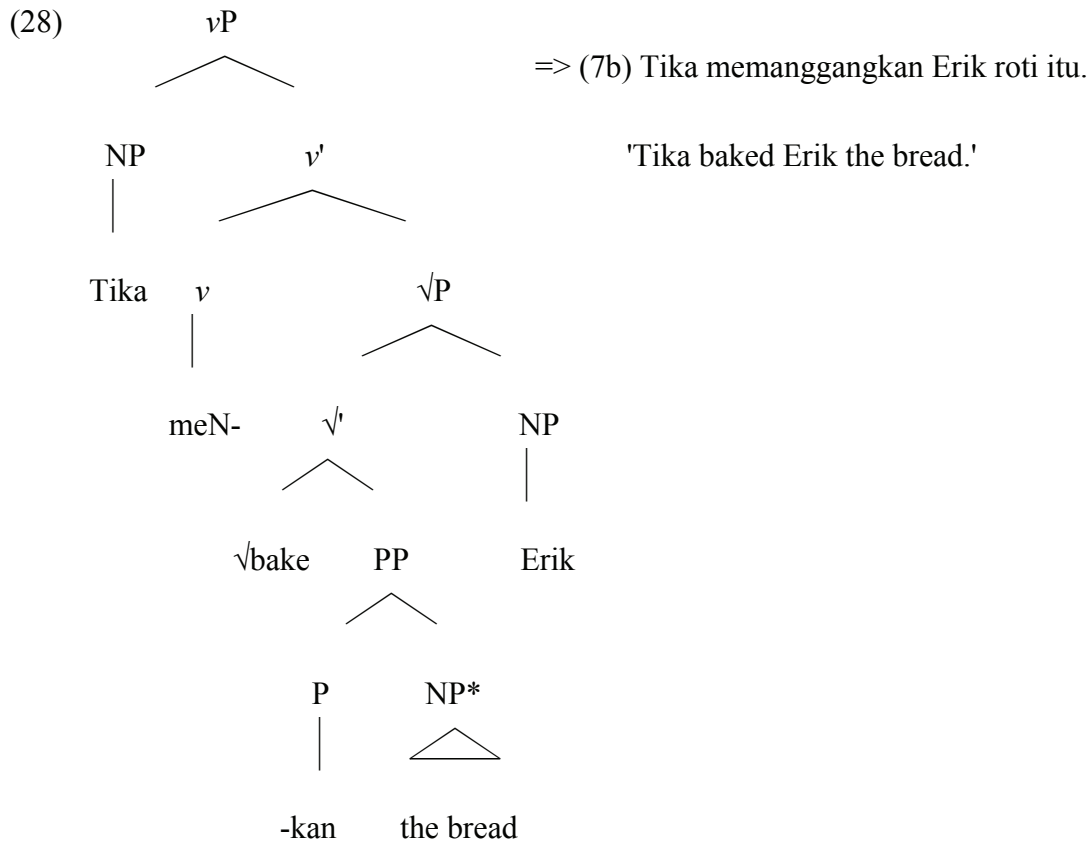


- As for double object benefactives, we should consider (27) and (28). In (27), two DPs appear within \sqrt{P} , and the beneficiary *Erik* fails to be Case-checked.



- If NP* first merges with *-kan* as in (28), the root takes the resultant PP by its first merge, just as the root merges directly with DP* by its first merge in (21) and (26). There is no essential difference as to the UTAH.
- Since *-kan* Case-checks NP* in (28), the root (plus *-kan*) can Case-check the other DP *Erik*. This results in the well-formed construction (7b).
- The thematic role of *Erik* cannot be a causer if an agent/causer should be an external argument

outside the root projection. Since a PP beneficiary argument can optionally appear as in (7a)=(26), the most natural (and presumably the only) interpretation of *Erik* is a beneficiary argument. Sneddon (1996: 82) observes that verbs like *eat*, which express actions that are not typically done for someone else resist suffixation by *-kan*.



- The linear order and the passivizability show that the primary object is the beneficiary argument of the double object construction in (29) and the theme argument of the PP benefactive construction in (30).
- These facts can be explained if we assume that the primary object is the one that is Case-checked by the root.

(29) a. Dia membelikan adiknya buku. (Sneddon (1996: 251))

he MEN.buy-KAN brother.his book
'He bought his brother a book.'

- b. Adiknya dibelikannya buku.
brother.his be-bought.him book
'His brother was bought a book by him.'

(30) a. Dia memeli buku itu untuk adiknya.
he MEN.buy book that for brother.his
'He bought that book for his brother.'

- b. Buku itu dibelinya untuk adiknya.
book that be-bought.him for brother.his
'That book was bought by him for his brother.'

6. Exceptions to the transitivity restriction

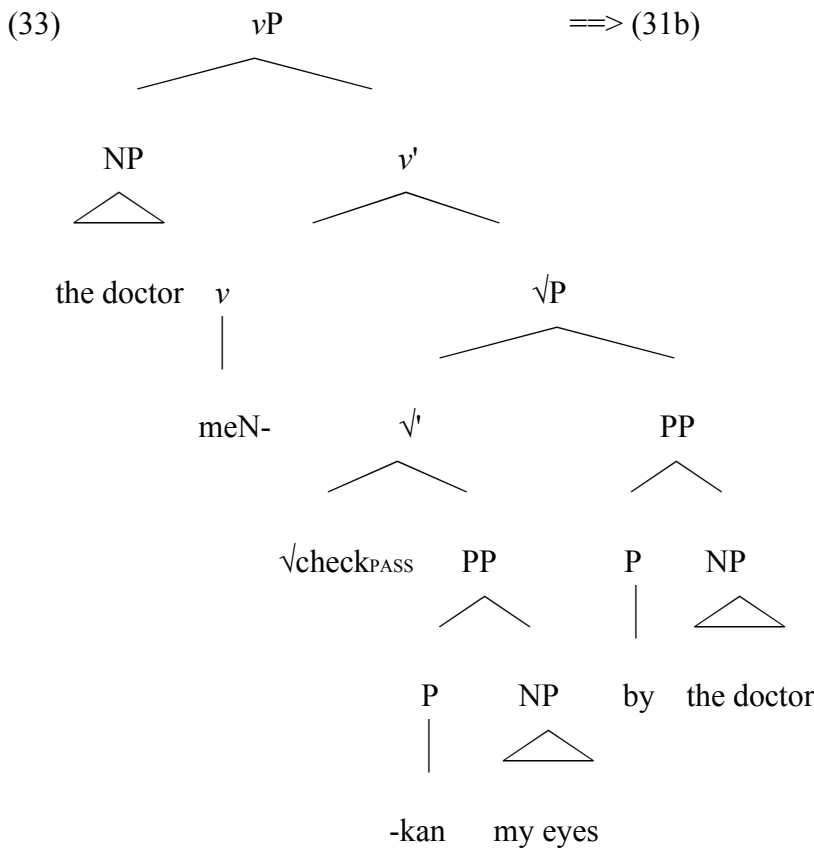
- There are several cases where no additional DP argument appears despite the presence of *-kan*.
- Case 1: *Meriksa* in (31a) appears to be a transitive root. Suffixed by *-kan* and prefixed by *meN-*, it becomes causative rather than benefactive in (31b), against the transitivity restriction.

(31) a. Dokter memeriksa mata saya.
 doctor MEN.check my eyes
 'The doctor checked my eyes.'
 b. Saya memeriksakan mata ke dokter/*oleh dokter
 I MEN.check-KAN eyes by doctor
 'I had my eyes checked by the doctor.'

- A transitive root without *meN-* is homophonous with what Guilfoyle et al. (1992) call a subjective passive like (32b).

(32) a. Kmi menjemput dia b. Dia kami jemput
 we MEN.meet him He us met
 'We met him.' 'He was met by us.'

- If *meriksa* in (31b) is a subjective passive as described in (33a), the appearance of *-kan* is expected; it Case-licenses the theme argument. In fact, the English translation of (31b) suggests that it has a passive connotation.



- A verbal root like $\sqrt{\text{destr}}$ in English is ambiguous between active and passive, as shown in (34). (31b)=(33) is on a par with (34b), where the theme argument is Case-checked by *of* and the agent argument optionally appears with *by*.

- (34) a. the enemy's destruction **of** the city
 b. the destruction **of** the city (by the enemy)
 c. *It was destroyed **of** the city by the enemy

- A remaining question is why (34c) is ill-formed; adjectives and intransitive verbs in English allow *of* but passive forms of transitive verbs do not allow *of* (cf. Chomsky (1981)).
- Case 2: A beneficiary argument can be phonetically empty, as shown in (35b). If *-kan* is absent, the absence of a beneficiary PP results in no benefactive meaning as in (35a), while if *-kan* is present, the beneficiary argument either overtly appears as a DP as in (7b) or is obligatorily implied as in (35b). If Indonesian is NOT a pro-drop language contrary to Son&Cole's (2008: 125) assumption, the benefactive interpretation of (35b) remains inexplicable.

- (35) a. Pelayan mengambil segelas air (untuk tamu). (Sneddon (1996: 81-82))
 waiter MEN.fetch glass water (for guest)
 'The waiter fetched a glass of water (for the guest).'
- b. Pelayan mengambilkan segelas air.
 waiter MEN.fetch- KAN glass water
 'The waiter fetched someone a glass of water.'

- Case 3: So-called instrumental or goal-PP constructions with *-kan* like (37b) do not appear to introduce a new DP argument. (Sneddon (1996: 78-80), Son&Cole (2008: 130-135). (35a,b) show that the transitive verb *mengikat* (tie) can take either a theme or an instrumental as its object. *Mengikat* in the construction (36a) can optionally take an instrumental PP as in (37a). If it is suffixed with *-kan*, the instrumental argument becomes its primary object, and the theme argument becomes a PP, as in (37b). In contrast to benefactive *-kan* in (35), *-kan* in (37b) can be omitted without causing change in meaning.

- (36) a. Dia mengikat anjing itu.
 3SG MEN.tie dog the
 'He tied the dog.'
- b. Dia mengikat tali itu
 3SG MEN.tie rope the
 'He tied the rope.'
- (37) a. Dia mengikat anjing itu dengan tali.
 3SG MEN.tie dog the with rope
- b. Dia mengikat-(kan) tali itu ke anjing.
 3SG. MEN.tie- KAN rope the to dog
 'He tied the rope to the dog.'

- I will leave Cases 2 and 3 for future research.

7. Pylkkänen's (2008) High/Low Applicatives and Son&Cole (2008)

- The claim that *-kan* is P and it appears lower than the root is quite different from Pylkkänen's (2008) High/Low distinction of Applicatives.
- In Pylkkänen's theory, all causatives are high; so Indonesian causatives like (5) and (6) should be high.
- Lexical and syntactic causatives are distinguished by the size of their complement: root phrase, (VP) or vP.
- Distinct meanings are associated with morphologically distinct high applicative morphemes in examples like (38).

- (38) a. Mukasa o-se-**is**-a Katonga
 Mukasa 3SG.PAST-laugh-**CAUSE**-FV Katonga
 'Musuka made Katonga laugh.'
- b. Mukasa o-amb-**el**-a Katonga
 Mukasa 3SG.PAST-speak-**BENEF**-FV Katonga
 'Mukasa spoke for Katonga.'

- Pylkkänen observes that English lexical causatives and benefactives are subject to the transitivity restriction of the kind found in Indonesian examples (5)-(7).
- But in Pylkkänen's theory, all causatives are high, and the contrast between (39) and (40) is attributed to the claim that English lexical causatives select for a root phrase, which does not have an external argument in its projection.
- The contrast between (41) and (42) is explained under the assumption that English benefactives are low. In brief, (39)-(42) are not given a unified analysis in Pylkkänen's theory.

- (39) a. The ice melted.
 b. John melted the ice. (unaccusative --> causative)
- (40) a. Sue laughs.
 b. *Mary laughs Sue. (unergative --> *causative)
- (41) a. I baked a cake for him.
 b. I baked him a cake. (transitive --> benefactive)
- (42) a. Mary spoke for Sue.
 b. *Mary spoke Sue. (unergative --> *benefactive)

- Son and Cole (2000: 145): Both causative and benefactive *-kan* are low applicatives, but they are given distinct semantic characterizations.
- Their claim that *-kan* is a result head is alleged to be based on the generalization that the beneficiary DP argument is a prospective possessor of the theme argument, as has been observed for English double object constructions like (43) (cf. Oerhle (1976), Pesetsky (1995), Beck and Johnson (2004) etc.).

- (43) a. Sally knitted Peter a sweater. (only possession reading)
 b. Sally knitted a sweater for Peter. (possession and non-possession readings possible)

- Son&Cole's claim does not accord with Sneddon (1996: 81): Indonesian allows a wider range of benefactive verbs with *-kan* than English double object verbs, and they typically express a purely benefactive (non-possessive) meaning. In particular, (44) does not imply change of the possessor of the cases; its English translation calls for a beneficiary PP. See also Chonan (2009).

- (44) Sopir membawakan saya koper yang berat.
 the driver MEN.carry-KAN me bag heavy.
 'The driver carried the heavy cases for me.' '*The driver carried me the heavy cases.'

8. Some implications

- Lexical causatives and benefactives in English can be analyzed as involving the same phonetically null morpheme. If it is a kind of P on a par with *-kan*, my account of the transitivity restriction in Indonesian causatives and benefactives can be extended to (39)-(42).
- Indonesian verbal roots cannot be suffixed doubly with *-kan*, and English derived nominals cannot take two instances of *of*, as shown in (45).
- Then, lexical causatives like *melt* in (46b), if analyzed as being suffixed by an empty affixal P, should not take a benefactive argument; (46c-e) should all be ill-formed.

- (45) a. *meN. √ -kan-kan
 b. *John's cracking of me of the nut (cf., Kayne (2008))
- (46) a. The ice melted.
 b. John melted the ice.
 c. ?John melted me some ice. (grammatical in Pylkkänen (2008))
 d. ?John broke me a block of ice.
 e. *John cracked me the nut.

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