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Javanese Adversatives, the 1-Advancement Exclusiveness Law
and Mapping Theory*

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Constructions referred to as "adversatives" or "adversative passives" comprise a group of constructions most characteristically found in languages of Asia, e.g., Chinese, Japanese, Korean, Indonesian, and others. Within Relational Grammar (RG), Dubinsky (1985) has proposed a clause union analysis of Japanese adversatives, which has been applied to Indonesian (Kana 1986) and Korean (Gerdt 1991) as well. In this paper I demonstrate that so-called Javanese adversatives (such as that in (1)) are best analyzed as regular passives with separate morphology rather than a unions. Adversatives are signalled by the so-called *ke-an* circumfix.

- (1) Montor-e Amir ke-tiba-n watu.
car-DEF A AD-fall rock
'Amir's car got fallen on by a rock.'

However, the analysis runs afoul of the 1-Advancement Exclusiveness Law and provides support for Gerdt's (1992) Mapping Theory of RG.

There is an asymmetry which sharply contrasts the Japanese and Indonesian adversatives. Japanese permits adversative structures of unergatives (2), but disallows adversatives with an unaccusative base (3).

- (2) Tanaka ga kodomo ni ie de asobareta
T NOM child DAT house LOC play.PASS.PERF
'Tanaka suffered the child playing in the house.'

- (3)*John ga kion ni agarareta.
J NOM temperature DAT rise.PASS.PERF
(The temperature went up on John.)

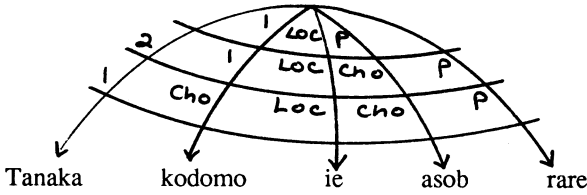
Conversely, according to Kana (1986), Indonesian disallows adversatives of unergatives (4), essentially restricting adversatives to unaccusative bases (5).

- (4)*Sri kebicaraan pemuda.
S AFFECT.speak young.man
(Sri endured a young man's speaking.)

- (5) Mobil itu kejatuhan batu.
car that AFFECT.fall rock
'The car got fallen on by a rock.'

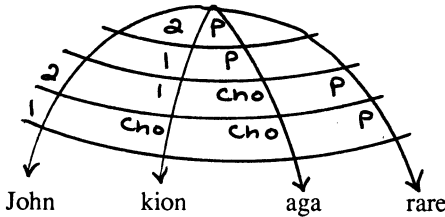
Dubinsky (1985) motivates the union structure in (6) for (2).

(6)



In (6), which uses the monoclausal union representation of Davies and Rosen 1988, the "inner clause" consists of the predicate play and the nominals *kodomo* 'child' and *ie* 'house'. In the second P-sector, an affectee argument, here *Tanaka*, is introduced by the affective predicate, and subsequently advances to 1. Dubinsky accounts for the impossibility of adversatives of unaccusatives through appeal to the 1-Advancement Exclusiveness Law (Perlmutter and Postal 1984), which limits to one the number of advances to 1 in a given clause. In (7), both *John* and *kion* 'temperature' advance to one, thus violating the 1AEX.

(7)



On the other hand, Kana resorts to a language-particular, construction-specific stipulation in accounting for the Indonesian. Thus, on the surface, it would seem that the language-particular constraint of the Indonesian analysis undermines the appeal to universal principles to explain the Japanese. From the standpoint of linguistic theory, this is an undesirable result.

Examining data from Javanese, a Western Austronesian language closely related to Indonesian, can clarify the situation. As the Javanese data in (8-9) show, the restriction on adversatives parallels that in Indonesian; unaccusatives appear to form adversatives (8), whereas unergatives do not (9).

(8) Montor-e Amir ke-tiba-n watu.
 car-DEF A AD-fall rock
 'Amir's car was fallen on by a rock.'

(9)*Kertas-e Amir ke-playo-nan bocahbocah.
 paper-DEF A AD-run children
 (Amir's paper got run on by the children.)

However, a union analysis is inappropriate for this construction. Rather, the so-called adversatives are best analyzed as "non-volitional" or accidental passives, and the restriction to "largely" unaccusative bases follows from an independently

necessary language-particular constraint on advancement to 2. I will show that Javanese adversatives share properties with two other passive constructions (i) accidental passives and (ii) locative agentive passives.

Finally, and ironically, the structure that naturally accounts for the Javanese adversatives and some other passives violates the very principle with which Dubinsky explains the Japanese data, the 1-Advancement Exclusiveness Law (1AEX). I propose therefore that the Javanese data provide some support for Gerdt's (1992) Mapping Theory.

1. Javanese Passives

There are a number of Javanese clause types that can be categorized as passive constructions. For brevity, I ignore the possible controversial nature of this claim. Two passives will be of interest here. One is the volitional, agentive, or *di-* passive, in which a theme argument occurs preverbally and a third person agentive NP follows, optionally marked with the preposition *karo*. The verb is prefixed with *di-*.

- (10) Bambang *di-tempeling* (*karo*) Amir.
 B PASS-slap by A
 'Bambang was slapped by Amir.'

This contrasts with the active transitive morphology (signalled by nasalization) of the propositionally equivalent (11).

- (11) Amir *nempeling* Bambang.
 A ACT.slap B
 'Amir slapped Bambang.'

The other passive of interest is the "accidental" or nonvolitional passive illustrated in (12).

- (12) Bambang *ke-tempeling* Amir.
 B PASS-slap A
 'Bambang was slapped by Amir.'

Here the prefix *ke-* marks the construction which generally indicates that the agent performed the action accidentally.

I intend to show that the so-called "adversative" *ke-* *-an* construction is actually an accidental passive in which the final subject is thematically a goal, locative, or some other oblique.

1.1 Similarities between Accidental Passives and Adversatives

Adversatives share a number of properties with accidental passives aside from the prefix *ke-*. Again for brevity, I discuss only two here: (i) the non-volitionality of the "agent" and (ii) co-occurrence restrictions on aspectual and modal auxiliaries.

First, in an adversative either the action of the "agent" is not volitional or the situation is unexpected (hence the notion in many cases of adversity). Adversatives and accidental passives cannot be formed on causative bases, those denote a conscious agentivity. Causatives are formed with the suffix *-kne*, *-kna*, or *-kake*, depending on the dialect. Thus the adversative in (13b) and the accidental passive in (14b) are ungrammatical, whereas the *di-* passive counterparts (13c, 14c) are fully grammatical.

- (13) a. Amir nyrita-kne crita menyang Ali.
 A ACT.story-CAUS story to A
 'Amir told the story to Ali.'
- b. *Ali ke-crita-an crita Amir.
 A AD-story story A
 (Ali got told the story by Amir.)
- c. Ali di-crita-ni crita Amir.
 A PASS-story-LOC story A
 'Ali was told the story by Amir.'
- (14) a. Bambang nuro-kne bayi-ne.
 B ACT.sleep-CAUS baby-DEF
 'Bambang made his baby sleep.'
- b. *Bayi-ne ke-turo-kne Bambang.
 baby-DEF PASS-sleep-CAUS B
 (The baby was put to sleep by Bambang.)
- c. Bayi-ne di-turo-kne Bambang.
 baby-DEF PASS-sleep-CAUS B
 'The baby was put to sleep by Bambang.'

Second, *di-*passives can occur with any of the full inventory of aspectual and modal auxiliaries, as seen in (15).

- (15) Bambang arep/ wis/ lagi/ isa/ mari di-tempeling Amir.
 B will already PROG can PERF PASS-slap A
 'Bambang will be slapped by Amir.'
 'Bambang has been slapped by Amir.'
 'Bambang is being slapped by Amir.'
 'Bambang can be slapped by Amir.'
 'Bambang has been slapped by Amir.'

Accidental passives (16) and adversatives (17) can only occur with *isa* 'can' and *mari*, a perfective auxiliary.

- (16) Bambang isa/ mari/ *arep/ *lagi/ *wis ke-tempeling Amir.
 B can PERF will PROG already PASS-slap A
 'Bambang can be/has been slapped by Amir.'
- (17) Siti isa/ mari/ *arep/ *lagi/ *wis ke-kancing-an lawang-e.
 S can PERF will PROG already AD-lock door-DEF
 'Siti can get/has gotten the door locked on her.'

The data above show that adversatives share certain crucial properties with accidental passives, which one naturally expects in an analysis that treats them as accidental passives.

1.2 Adversatives and Locative *di*-passives

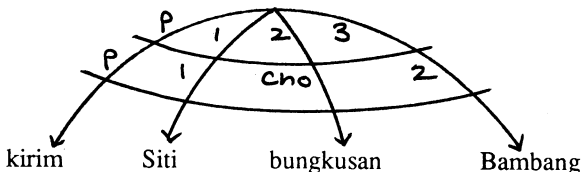
Adversatives also share some grammatical properties with locative *di*-passives, *di*-passives in which the final subject bears the goal, location, or source thematic role (but crucially not benefactive). These constructions are marked by the *-i* "locative" suffix, as in (18, 19).

- (18) Bambang di-kirim-i bungkusan (karo) Siti.
 B PASS-send-LOC package by S
 'Bambang was sent a package by Siti.'
- (19) Amir di-teka-ni (karo) Bambang.
 A PASS-come-LOC by B
 'Amir was visited by Bambang.'

The *-i* suffix also occurs on active, in which a goal, locative, or source is focused (at times in preference to a theme argument), as in the counterpart to (18) in (20a). A standard RG treatment of this phenomenon would take *-i* as registering the advancement of a 3 or oblique to 2; (20a) would thus have the RN in (20b).

- (20) a. Siti ngirim-i Bambang bungkusan.
 S ACT.send-LOC B package
 'Siti sent Bambang a package.'

b.



It has been noted in some grammars of Javanese that *-an* is the counterpart of *-i* in the accidental passive (e.g., Horne 1961, Poedjosoedarmo 1986). Here I substantiate this analysis by demonstrating similarities between adversatives and locative *di*-passives.

First, the predicates serving as bases for the two constructions are for all intents and purposes the same. Included in the list are:

- (21) *uncal* 'throw', *tutup* 'close', *kirim* 'send', *sepak* 'kick', *ciprat* 'splash',
gawa 'carry', *banjir* 'flood', *ilang* 'disappear'

Second, the constructions show parallel postverbal word order. First, the agent and the theme of each construction may occur as a bare NP and may occur in either order. Thus, in the locative passive in (22), either ordering of the theme *banyu panas* or agent *Bambang* is acceptable.

- (22) Siti di-ciprat-i { Bambang banyu panas/ banyu panas Bambang }.
 S PASS-splash-LOC B water hot water hot B
 'Siti was splashed with hot water by Bambang.'

As (23) shows, the same is true of the "agent" and theme of the adversative.

- (23) Siti ke-ciprat-an { Bambang banyu panas/ banyu panas Bambang }.
 S AD-splash B water hot water hot B
 'Siti got splashed with hot water by Bambang.'

Additionally, the possible placement of the emphatic element *lho* (which has various effects on the meaning of a sentence) and *maneh* 'again' are similar in the two clause types. Here, I illustrate only with *lho*. With a locative *di*-passive the emphatic element *lho* may precede the agent NP only when the agent takes prepositional marking. Thus, (24), in which *lho* follows the unmarked agent *anak-e* 'her child', is fine, while (25), in which *lho* precedes the agent, is only grammatical when the agent takes prepositional marking.

- (24) Siti di-ciprat-i banyu panas anak-e lho.
 S PASS-splash-LOC water hot child-DEF EMPH
 'Siti was splashed with hot water by her child!'

- (25) Siti di-ciprat-i banyu panas lho *(karo) anak-e.
 S PASS-splash-LOC water hot EMPH by child-DEF
 'Siti got splashed with hot water by her child!'

The adversatives in (26,27) show the same constellation of facts. However, the variant in which the "agent" is preceded by *lho* cannot be saved since the "agent" cannot take prepositional marking, (27).

- (26) Siti ke-ciprat-an banyu panas anak-e lho.
 S AD-splash water hot child-DEF EMPH
 'Siti got splashed with hot water by her child!'

- (27)*Siti ke-ciprat-an banyu panas lho anak-e.
 S AD-splash water hot EMPH child-DEF
 (Siti got splashed with hot water by her child!)

These facts indicate the close relationship of adversatives and locative *di-* passives. The analysis is further strengthened by the fact that accidental passives cannot take the locative *-i* suffix. Thus, (28,29) are ungrammatical solely because of the form of the suffix.

(28)*Bambang ke-kirim-i bungkusan.
 B PASS-send-LOC package
 (Bambang was (accidentally) sent a package.)

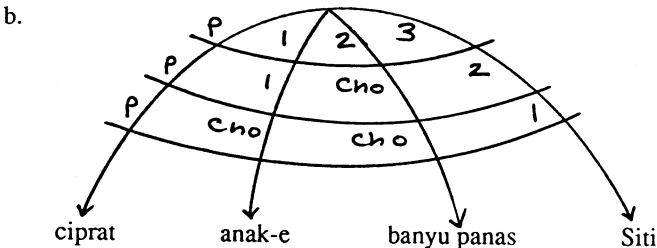
(29)*Siti ke-ciprat-i banyu panas anak-e.
 S PASS-splash-LOC water hot child-DEF
 (Siti was (accidentally) splashed with hot water by her child.)

Further support for analysis of *-an* as a locative suffix comes from its use as a locative suffix in Philippine languages such as Tagalog and its reconstruction as a proto-Austronesian locative suffix.

2. The Analysis

Having established that Javanese adversatives are simply accidental passives open to a general passive structure, it remains to account for their distribution. As passives with non-theme final subjects, adversatives such as (30a) will have the representation in (30b).

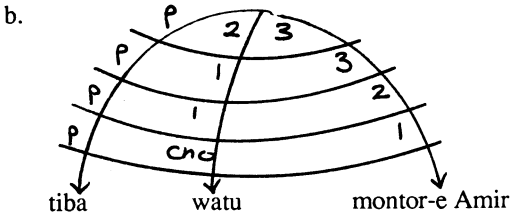
(30) a. Siti ke-ciprat-an banyu panas anak-e.
 S PASS-splash-LOC water hot child-DEF
 'Siti got splashed with hot water by her child.'



Under the interpretation in which the locative suffix registers advancement to 2, *Siti* will first advance from 3 to 2 and then to 1.

The problem for the theory of RG emerges when we consider the case of unaccusative bases. For example, within a standard RG account, (31a) would have the structure in (31b).

(31) a. Montor-e Amir ke-tiba-n watu.
 car-DEF A PASS-fall-LOC rock
 'Amir's car got fallen on by a rock.'



Tiba 'fall' is arguably an unaccusative predicate in Javanese, so that the initial stratum in (31b) will contain a 2-arc but no 1-arc. In order to set up a transitive stratum for the passive structure, the initial 2 must advance to 1 and the goal, *montor-e Amir* 'Amir's car' must advance to 2; *montor-e Amir* can then advance to 1 via passive. The problem, of course, is that the structure in (31b) violates the 1AEX, and thus (31a) should be ill-formed. However, this appears to be the most reasonable analysis of the data.

Gerdt's (1992) Mapping Theory of RG provides a solution. In an attempt to explain the constellation of RG structures found in particular languages, Gerdt's adds a level of morphosyntactic argument structure to "classic" RG. In Gerdt's Mapping Theory, three types of information about nominals are encoded: (i) its thematic relation, (ii) its grammatical relation, and (iii) its MAP (morphosyntactically-licensed argument position) if it has one. The MAPs in a language correspond to the "direct arguments", or the syntactically active arguments. A language will generally have a maximum of 2 or 3 MAPs depending upon whether or not most morphosyntactic processes (e.g., structural vs. inherent case, verb agreement, word order) apply to only subjects and direct objects or to subjects, direct objects, and indirect objects. Gerdt's identifies Indonesian as a 2-MAP language; Javanese is a 2-MAP language for many of the same reasons. This means that a Mapping Theory representation of an active transitive clause would be as in (32).

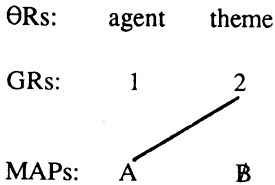
(32)	thematic relations:	agent	theme	
	grammatical relations:	1	2	(initial GRs in RG)
	MAPs	A	B	(final GRs in RG)

MAPs are ordered positions (represented as A, B, etc.) linked to morphological statements (e.g., active morphology licenses A, immediate postverbal position licenses B). In any given clause, the number of MAPs is based on three things: (i) the valence of the verb, (ii) MAP-reducing or -building morphology, (iii) the MAP threshold set for the language (here 2). Gerdt's also includes a number of principles for linking GRs and MAPs, which we will not go into here; these are well-formedness conditions on linking akin to laws of RG and conditions on linking in other linking theories. A final bit of information is that **unmarked associations** of GRs to MAPs proceed in a vertical left-to-right fashion, as illustrated in (32). **Marked associations** involve non-vertical linkings or linking

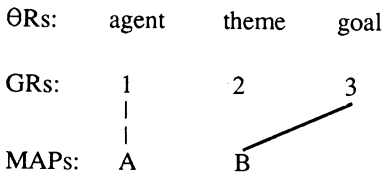
a nominal not present in the valence of the verb. These are generally accompanied by morphological conditions and marking and parallel some of the relation-changing structures of RG, e.g., passive, 3-2 advancement, and so on.

To take two examples from Javanese, the passive clause in (10) would have the MAP representation in (33) and the 3-2 Advancement clause in (20) would have the MAP representation in (34).

(33) Passive (10)

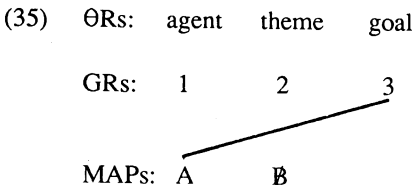


(34) 3-2 Advancement (20)



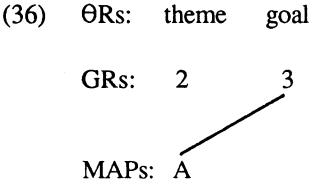
In the Passive in (33), the theme 2 links directly to the A MAP and the agent 1 is unlinked, and the B MAP is erased (denoted here by the line through it). In the 3-2 representation in (34), the agent 1 links to the A MAP and the goal 3 links to the B MAP; the theme is unlinked. The fact that the agent in (33) and the theme in (34) are unlinked accounts for their being morphosyntactically inert. Passive morphology is triggered when the highest GR goes unlinked, and LOC morphology is triggered when the 3/Obl is linked to a MAP.

Let us return to the adversatives. The MAP representation of (30) would be:



Linking the goal argument with either MAP results in LOC marking, here *-an* since it is an accidental passive, and linking a lower-ranking GR to the A MAP triggers

passive morphology, here *ke-*. Note that a locative *di-*passive will have the same representation and morphosyntactic rules for the *-i* morpheme will parallel that for the *-an* morpheme and that for the *di-* morpheme will parallel that for the *ke-* morpheme. Accepting a representation such as (35) for (30) allows a solution to the problematic case in (31) that does not violate the 1AEX or any of Gerdts' Mapping Theory principles. The passive with the unaccusative base will have the representation in (36).



The representation in (36) results in the appropriate morphology. A goal argument is linked to a MAP, hence the verb takes the locative suffix *-an*. Additionally, the highest GR (here the 2) is not linked to the A MAP, thus yielding passive morphology. Importantly, the representation in (36) also serves for a locative *di-*passive with an unaccusative base, such as (37).

(37) Bambang *di-teka-ni* Amir.
 B PASS-come-LOC A
 'Bambang was visited by Amir.'

3. Conclusion

We have seen how treating Javanese adversatives as passives more correctly reflects a range of facts about Javanese than would a Union analysis. We have also seen that granting the passive analysis of could well provide support for Gerdts' Mapping Theory, granting the correctness of the 1-Advancement Exclusiveness or some close analogue. However, we have not yet explained the restriction of "adversatives" to unaccusative bases. As stated above, this restriction does not arise from a language-particular constraint on "adversatives" or *ke- -an* passives, rather this apparent restriction stems from a language-particular constraint on the construction responsible for locative morphology, 3-2 Advancement. This can only be recognized under the passive analysis of adversatives.

Quite simply, for reasons that remain obscure, 3-2 or Obl-2 advancement is possible only when there is an initial 2 (or in Mapping Theory terms a 2 GR). This restriction shows up in all passive constructions as well as actives. Thus, an unergative clause with a Goal, Locative, or Source argument will not allow the oblique to surface as a 2 or 1. In (38), we have such an unergative.

(38) Bocahbocah kuwi mlayu menyang toko kuwi.
 children that run to store that
 'The children ran to the store.'

However, for most speakers, advancing the locative to 2, resulting in loss of preposition and the addition of locative morphology, results in ungrammaticality in both actives (39) and *di*-passives (40).

(39)*Bocah kuwi mlayo-ni toko kuwi.
children that run-LOC store that
(The children ran to the store.)

(40)*Toko kuwi di-payo-ni bocahbocah.
store that PASS-run-LOC children
(The store was run to by the children.)

Although the reason for the constraint against Obl-2 advancement in the absence of a 2 is mysterious (a similar constraint has been noted by Aissen (1983) for Tzotzil and Chung (1976) for Indonesian), the illicitness of this construction in actives and *di*-passives reveals that the restriction of adversatives to unaccusatives among intransitive bases does not reflect a construction-specific constraint of the type suggested by Kana for Indonesian but follows from restrictions necessary elsewhere in the grammar.

Notes

*The Javanese reported on here is the familiar or Ngoko style spoken by young adults in Surabaya. I would like to thank Susanto Teng, Surtjahjo, and Djoko Luknanto for providing the data reported on here. This work was supported in part by the Graduate School of the University of Iowa and the University of Iowa Center for Asian and Pacific Studies.

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