

Resultative Complex Predicates in Kimaragang Dusun^{*}

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This paper discusses a resultative construction in Kimaragang Dusun in which two verbs occur within the same clause. The initial verb, which names the result, is the independent form; it may be inflected for tense, aspect, imperative mood, etc., and typically appears in a non-active voice. The second verb, which names the action, appears in an invariant non-past, active voice form. The construction is analyzed as a complex predicate, meaning that the two verbs share a single argument structure. Evidence for monoclausality comes from the pattern of case assignment and the distribution of 2P clitics, while evidence for shared argument structure comes from uniqueness effects and the interaction with causative formation.

1. Introduction

This paper discusses a somewhat surprising construction in Kimaragang Dusun, a Philippine-type language spoken in northeastern Borneo. Although the construction contains two verbs, I argue that it is mono-clausal and that the two verbs together share a single, complex argument structure. For this reason I refer to the construction as a COMPLEX PREDICATE. Two primary types, or uses, of the complex predicate construction have (thus far) been identified, which I refer to as MANNER and RESULTATIVE complex predicates (MCPs and RCPs, respectively). These two types differ in their semantic relations, but to this point I have found no clear evidence of a difference in syntactic structure.

Some examples of the manner type are presented in (1), and some examples of the resultative type in (2). As these examples illustrate, the first verb in the construction (V_1) is fully inflected for voice, tense-aspect, mood and modality, while the second verb (V_2) is invariant, always appearing in the active voice, non-past tense, and non-imperative mood. (See Holmer (2004) and Chang (in press) for similar examples in several Formosan languages.)¹

- (1) a. Induwa-an nopoh momoog(m-poN-wo'og) inoh wagas toboh.
twice-dv only av-tr1-wash that(nom) rice prt
'Just wash that (uncooked) rice two times.'
- b. N-enggotus-an dialo miguguli(m-pi-gu-guli) mongumpug(m-poN-umpug)
PST-hundred.times-DV 3sg AV-RECIP-DUP-return AV-TR1-gather
i niyuw di lapak-on yoh.
NOM coconut REL split-OV 2sg.GEN
'He went back a hundred times to gather the coconuts he was splitting.'
- c. Basag-on noh mongogodong(m-poN-godong) ilo tali
strong-OV FOC AV-TR1-pull that(NOM) rope

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¹Note that in the orthography used here, word-final glottal stop is not marked while a word-final /-h/ indicates the lack of a final glottal stop, i.e., an open syllable.

- ong tarik.tali kou ki.
if tug.of.war 2pl.NOM PRT
'Pull hard on the rope when you enter the tug-of-war, okay?'
- d. Bandan-o=i' momurok(m-poN-purok) inoh manuk toh.
big- OV=PRT AV-TR1-cut.up that(NOM) chicken PRT
'Chop up that chicken into big pieces.'
- e. Tuyuan-ai Ø-po-wiliw inoh runggu, a-babak dati.
careful-DV AV-TR2-lay that(NOM) jar NVOL-shatter likely
'Put that jar down gently or it might break.'
- f. G[in]ibang-Ø kuh yalo manampar(m-poN-tampar).
[PST]-near-OV 1S.GEN 3sg.NOM AV-TR1-punch
'I hit him with my left hand.'
- g. K[in]ondiri-Ø dialo mamatay(m-poN-patay) it tasu yoh.
[PST]-self-OV 3sg AV-TR1-kill NOM dog 3sg.GEN
'He killed his dog himself.'
- (2) a. N-a-rasak do karabau monginum(m-poN-inum) at weeg.
PST-NVOL-dry.up GEN buffalo AV-TR1-drink NOM water
'The stream was drunk dry by buffaloes.'
- b. P[in]i-toning-Ø kuh it sapi om karabau Ø-po-ogot.
RECIP[PST]-near-OV 1sg.GEN NOM cow and buffalo AV-TR2-tie
'I tied up the cow and the buffalo near each other.'
- c. Adan-o' yalo mamasut(m-poN-pasut)!
faint-OV.IMPER 3sg.NOM AV-TR1-whip
'Whip him unconscious!'
- d. N-a-dapit-Ø do tulun momokok(m-poN-wokok) at bawang.
PST-NVOL-span-OV GEN person AV-TR1-dam NOM river
'Someone dammed up the river all the way across.'
- e. Tuus-an noh momo'og(m-poN-wo'og) inoh tunturu nuh!
faint-DV FOC AV-TR1-wash that(NOM) finger 2sg.GEN
'Wash your fingers totally clean!'

In the manner type, as seen in (1a-g), the “pivot” (or grammatical subject) of the construction is typically not a semantic argument of V_1 . Rather, V_1 seems to be predicated of the action as a whole.² If the second verb were not present all seven of these sentences would be ungrammatical. For example, the root *basag* ‘strong’ in (1c) is only used for animate beings.

² In this sense, the assignment of semantic roles in the MCP is somewhat similar to a Raising construction (e.g., *John seems to enjoy his work*). Syntactically, however, I argue that the structure is monoclausal, whereas a Raising construction by definition must be biclausal.

The verb form *basagon* cannot be used for strengthening a rope (or any other inanimate thing), but describes how the action is done (‘strongly’). The root *bandan* ‘big’ in (1d) cannot be predicated of an object (e.g. a chicken), and chopping something cannot make it bigger. Nevertheless, it is V_1 and not V_2 that determines the nominative case marking on the pivot NP. It is this case-marking pattern which makes the construction seem so odd.

In the resultative type, as seen in (2a-e), the “pivot” is typically a semantic argument of both verbs; a more precise statement is formulated in section 4. The syntactic properties of the construction, however, seem to be identical for both types, as noted above. The remainder of the paper focuses primarily on the resultative type. Section 2 provides some basic information about Kimaragang morphology and clause structure, presents evidence for the monoclausal nature of this construction, and illustrates some structural differences between the complex predicate construction and various other complex sentence types in Kimaragang. Section 3 discusses the semantic constraints on argument sharing within the RCP construction. Section 4 formulates a lexical rule of RCP formation, and provides supporting evidence for this analysis involving the interpretation of examples in which V_1 is a morphological causative. Section 5 discusses an alternative analysis which essentially treats V_2 as a kind of gerund functioning as an adjunct clause.

2. Basic clause structure

In Kimaragang, as in most Philippine-type languages, any argument of the verb can be selected as subject (or “pivot”). A definite Undergoer will normally be selected as subject unless some other argument of the clause is extracted. Non-subject arguments carry semantically determined case marking that reflects their thematic role, but subjects always carry nominative case. The case-marking particles of Kimaragang are summarized below:³

(3)		NOM	GEN/ACC	DAT/LOC
	Definite	i(t)	di(t)	sid
	Indefinite	o(t)	do(t)	sid
	Unique ref.	a(t)	da(t)	ad

The thematic relationship of the subject argument to the predicate is signalled by a voice-marking affix on the verb. The use of the voice markers in Kimaragang is illustrated in the following examples. In each sentence the subject is italicized.

- (4) a. *Yokuh* ot minonunguw(m-in-poN-tunguw) dinoh tinorimo dinoh ...
 1sg.TOP NOM AV-PAST- TR1-pour that.ACC cooked.rice that
 ‘I was the one who added water to the rice (being cooked)...’

³The genitive and accusative cases are distinguished only in pronominal forms, but for ease of exposition I will gloss non-pronominal NP’s as bearing ACC or GEN case depending on which form a pronominal argument would take in that same position. Another possible analysis would be to say that non-pronominal objects take genitive case, while pronominal objects take accusative case. This pattern finds parallels in other Philippine-type languages. For example, in Tagalog definite animate objects take dative case, while indefinite and most inanimate objects take genitive case.

- b. Tungu-on it sada ki-owoh ...
 pour-OV NOM fish PRTCL
 ‘Add water to the fish, okay?’ (when cooking; to make gravy)
- c. N-i-tunguw kuh it weeg di sada sid poonumadan do tasu.
 PAST-IV-pour 1sg.GEN NOM water GEN fish DAT TR1-feed-DV GEN dog
 ‘I poured the water from (cleaning) the fish into the dog’s feeding dish.’
- d. Tungu-ai poh do tinasak ilot lampu kuh.
 throw-DV.IMPER yet ACC oil that.NOM lamp 1sg.GEN
 ‘Fill my lamp with oil.’

Instrumental Voice (*i-*) is used when the subject is either an instrument, or (as in 4c) a displaced theme. Dative Voice (*-an*) normally indicates that the subject is a goal (as in 4d), a recipient, or a beneficiary; other uses with specific classes of verbs are illustrated in Kroeger and Johansson (2005). Active Voice (*m- ~ -um-*) signals that the subject is the argument that is highest on the thematic hierarchy (agent > experiencer > ...). Objective Voice (*-on*) normally selects the patient as subject. A fifth voice category, not illustrated in (4), is Locative Voice, which is homophonous with the Objective Voice except in the past tense (see ex. 7b). Locative Voice is used primarily when the subject of the sentence is the location or destination of an intransitive verb of motion, posture or position; and with verbs of infestation, infection, etc.

The Kimaragang TAM affixes are summarized in (5). Kimaragang exhibits a simple two-tense system, past vs. non-past. The past tense marker is the infix *-in-*, inserted after the initial consonant of the base form. Before vowel-initial forms, this infix reduces to a prefixed *n-*. Verb forms which lack this tense marker are interpreted as non-past. In addition, three of the voice markers have a distinct atemporal form which is used for imperatives, for the main verb when an auxiliary is present (see next section), and for main-line narrative events as illustrated in (6), taken from a folk-tale. Finally, a distinct non-volitive form (glossed “NVOL”) is used to express ability, involuntary actions, result states, and indefinite time reference; see Kroeger (1990), Dell (1983). Note that aspectual uses of reduplication are not included in (5). These include imperfective aspect (i.e., progressive and habitual), repetitive, distributed action, etc.

(5) **TAM affixes:**

Voice Category	Non-past	Past	Imperative/ atemporal	Non-volitive
Actor (AV)	m- / -um-	m-in- / -in-um-	∅-	(no)ko-
Objective (OV)	-on	-in-__-∅	-o’	(n)o-
Dative (DV)	-an	-in-__-an	-ai	(n)o- -an
Instrument (IV)	i-	n-i-	---	(no)ko-
Locative (LV)	-on	-in-__-on	---	---

- (6) *Ongoy-o'* noh di tasi-asi om *patay-o'* noh
 fetch-OV.ATMP FOC GEN orphan and kill-OV.ATMP FOC
- om *tunuw-ai* noh.
 and roast-DV.ATMP FOC
 'The orphan boy fetched (the lizard) and killed it and roasted it.'

In basic verbal clauses the verb always comes first, pronouns almost always precede full NPs, and NP subjects tend to occur in clause-final position. The position of pronominal elements is fairly strictly determined by various constraints which will be discussed immediately below. The relative order of full NPs, on the other hand, is relatively free. There is a general tendency for NPs to precede PPs, and for genitive NPs to precede dative NPs. When the verb is marked for actor voice, the nominative Actor NP may either occur in final position or immediately after the verb. In other voices, the Actor NP normally precedes all other non-pronominal elements of the clause. But non-human Actors, as well as inanimate effectors, may also occur after the subject.

Genitive pronouns for all persons, and first and second person nominative pronouns, are second-position (or "2P") elements; that is, they must always follow the first constituent in their clause. (Third person nominative pronouns optionally occupy this position.) In a normal verb-initial clause, this means following the verb. For example, (1f), (2b) and (4c) all contain a genitive Actor pronoun immediately following the verb.

When a negative or other adverbial element is fronted to pre-verbal position, 2P clitics will also precede the verb; this is exemplified in (7). In addition to pronouns, a variety of other particles also occur in this position, as seen in (7c). (See also (1c) and (2e), where the aspectual particle *noh* occupies the 2P position.) Sentence-level conjunctions do not function as a part of the minimal clause, and so do not affect clitic placement.

- (7) a. Suwab-suwab *okuh* manalu do pulut.
 every.day 1sg.NOM AV:TR:tap GEN rubber
 'Every day I tap rubber.'
- b. Sid tana *yah* n-odop-on.
 DAT earth 1pl.ex.GEN PST-sleep-LV
 'We slept on the ground (after the house burned down).'
- c. Amu *okuh* *poh* *dati* ko-guli dot suwab
 NEG 1sg.NOM yet probably NVOL.AV-return LNK tomorrow
- sitih k[um]araja.
 here [AV]work
 'Tomorrow I probably cannot return to work here.'

2.1 Evidence for monoclausality

The most obvious kind of evidence that the two verbs in the complex predicate construction belong to the same clause is that they cannot be separated by a pause, conjunction,

complementizer, linker, or any other marker of clause boundaries.⁴ Further evidence comes from the placement of second-position clitics. In a subordinate clause, whether complement or adjunct, clitic pronouns and particles appear immediately after the first element of their minimal clause; this clearly indicates the location of sentence-internal clause boundaries. Example (8a), for example, contains three internal clause boundaries as indicated by the location of the italicized clitic elements. In the resultative construction, however, there is no medial position that can host such clitics; note the position of the two clitic arguments in (8b), immediately following the fronted NEG. This is especially striking in the nominative subject pronoun, since non-pronominal subject NPs normally follow V_2 in this construction. Thus the position of the 2P clitics in examples like (8b) provides strong evidence that the resultative construction is monoclausal.

- (8) a. Ela'an *kuh=i'* dot magaago *yalo* nga'
 know 1sg.GEN=EMPH COMP hurry(AV) 3sg.NOM but
 n-antara-Ø *kuh* tu' waro b[in]oros *kuh* sid dialo.
 PAST-*intercept-OV* 1sg.GEN because EXIST [NMLZ]say 1sg.GEN DAT 3sg
 'I knew that he was in a hurry but I held him up because I had something to say to him.'
- b. Amu *kuh* *yalo* n-o-onong-Ø monimbak.
 not 1sg.GEN 3sg.NOM PST-NVOL-hit- OV AV-shoot
 'I didn't hit him when I shot.'

Additional evidence for the monoclausal status of the complex predicate construction comes from the pattern of voice marking and case assignment. As discussed above, the case marking of an NP argument depends in part on the voice marking of the verb which selects it. In the complex predicate construction, V_2 always appears in the active voice. V_1 typically appears in a non-active voice, and it is this verb which determines the case assignment for both actor (GEN) and undergoer (NOM). The nominative case marking of the undergoer, even when it follows V_2 as in (1a-e), (2a,d,e) etc., is quite surprising, and is one of the main defining features of this construction. It seems to show that, whatever the semantic relations involved, the nominative NP is always a syntactic argument (and therefore a clausemate) of V_1 . This conclusion is confirmed by the fact that the nominative NP can be topicalized (9a-b), clefted, or questioned (9c), in which case it appears before V_1 .⁵

- (9) a. It sapi om karabau p[in]i-toning-Ø kuh Ø-po-ogot.
 NOM cow and buffalo RECI[PST]-near-OV 1sg.GEN AV-TR2-tie
 'The cow and the buffalo I tied up near each other.'
- b. It togilai yah nga' n-a-awi do kara mangakan,
 NOM maize 1pl.ex.GEN TOP PST-NVOL-finish-OV GEN monkey AV-TR1-eat

⁴ But see the discussion of *dot* in section 4, where it is noted that some but not all RCPs allow a biclausal paraphrase containing this particle.

⁵ These examples cannot be instances of long-distance extraction, because the voice category of V_2 would not permit it.

it parai yah nga' notuus do karabau mongotop.
 NOM rice 1pl.ex.GEN TOP PAST-NVOL-eat.up-OV GEN buffalo AV-TR1-graze
 'Our maize was all eaten by monkeys, and our rice crop was completely devoured by buffaloes.'

- c. Disai do tasu ot n-a-patai dialo momobog?
 whose LNK dog NOM PST-NVOL-kill-OV 3sg AV-TR1-beat
 'Whose dog did he beat to death?'

In a biclausal structure, each verb determines the case marking of its own arguments. In most biclausal structures, moreover, each verb can be marked for tense, and may (in principle) take the full range of voice markers. A biclausal result-reason sentence is illustrated in (10). Notice that both verbs are marked for past tense, each verb is followed by its own arguments, and each verb assigns nominative case to its own subject.

- (10) [Naandab i=togilai] tu' [minonutud okuh di=sakot id=tompil].
 PST-NVOL-wilt NOM=corn because AV-PST-TR1-burn 1s.NOM ACC=grass DAT=side
 'The corn wilted (from heat) because I burned some grass right next to it.'

The conjunction *tu'* 'because' is frequently omitted in such constructions when the subject of the second clause is co-referential with the subject of the first. The result is a biclausal sentence pattern that looks superficially similar to the resultative (RCP) construction. The diagnostic features that distinguish examples like those in (11) from the resultative include the following: the second verb may be inflected for tense and may occur in non-active voices; either clause may contain an auxiliary verb (see sec. 2.2), as in the second clause of (11c); an optional pause may occur between the two clauses, as in (11d-e); each verb precedes and assigns case to its own arguments; and the overt subject NP normally follows first verb, whereas in the resultative construction a non-pronominal subject NP normally follows V_2 .

- (11) a. Noko-pilai yalo s[in]junggu-Ø do karabau.
 PST.NVOL.IV-throw 3sg.NOM [PST]-horn-OV GEN buffalo
 'He was gored by a buffalo and tossed (into the air).'
- b. N-a-alum-Ø nopoh ilo parai n-ajang-an do sarup tologod.
 PST-NVOL-flatten-OV only that(NOM) rice PST-affect-DV GEN wind strong
 'That rice was hit by a strong wind and flattened.'
- c. N-o-wutus-Ø noh it parai minaan da manuk ka-kakay-o.
 PST-NVOL-pull.out-OV FOC NOM rice AUX.PAST GEN chicken REDUP.scratch-
 OV.ATMP
 'My rice plants were uprooted because the chickens were scratching around them.'
- d. N-o-dompol i tandus kuh, n-i-sungkad dialo sid pampang.
 PST-NVOL-blunt NOM spear 1sg.GEN PST-IV-poke 3sg DAT stone
 'My spear was blunted because he poked it against a stone.'

- e. N-o-oyas it walai dialo, n-a-aba-an dit kayu.
 PST-NVOL-fall.apart NOM house 3sg PST-NVOL-fall.over-DV GEN tree
 ‘His house was fallen on by a tree and got smashed to pieces.’

It is generally possible to express the meaning of a resultative complex predicate like that in (12a) using a biclausal structure, as illustrated in (12b). However, paraphrase in the opposite direction is not always possible. The RCP construction is subject to a number of semantic restrictions which do not apply to the biclausal structure. Some of these will be discussed in the following sections.

- (12) a. N-o-tuus-Ø do karabau mongotop i parai kuh.
 PAST-NVOL-eat.up-OV GEN buffalo AV-TR1-graze NOM rice 1sg.GEN
 ‘My rice crop was completely devoured by buffaloes.’
- b. N-o-tuus-Ø i parai kuh k[in]otop-Ø do karabaw.
 PAST-NVOL-eat.up-OV NOM rice 1sg.GEN [PST]-graze-OV GEN buffalo
 ‘My rice crop was all eaten up, grazed off by buffaloes.’

2.2 Contrast with auxiliary verbs

Another situation where a single clause may contain two verbs is when one of those verbs is an auxiliary. There is at least one auxiliary verb in Kimaragang. This verb has the basic form *mangan*, often shortened to *maan*, with past tense forms *minangan*, *minaan*, or *naan*.⁶ It is sometimes used alone as a kind of pro-verb meaning ‘make’ or ‘do’, as in (13).

- (13) a. Nunuh ot maan nuh?
 what NOM do 2sg.GEN
 ‘What are you doing?’
- b. Okon.ko ogumu o ma-mangan, ka-basug inoh.
 don’t much NOM REDUP-do NVOL-AV-imbecile that
 ‘Don’t be doing lots [of things] (=don’t go messing around like that), it can result in [you] becoming imbecilic.’

By far the most frequent use, however, is in combination with an agentive transitive main verb in objective or dative voice. The main (content) verb in this construction always carries the atemporal form of the voice marker. The meaning of the clause is essentially the same as it would be without the auxiliary, but in some contexts the use of the auxiliary implies increased intentionality on the part of the Actor. Basic word order seems to be Aux-V-Actor-Subject, as in example (14a); but the Actor phrase can also appear between the auxiliary and content verb, as in (14b). Any clitic pronouns or particles in the clause appear in second position, which usually means between the auxiliary and content verb, as in (14c-e). If a NEG or some other fronted element is present, 2P particles occur before the auxiliary as in (14f).

- (14) Minaan akan-o’ do tusing ilot sada.
 PAST.AUX eat-OV.ATMP GEN cat that(NOM) fish
 ‘That fish was eaten by a cat.’

⁶ These forms appear to have no root, but consist entirely of affixes.

- b. Minaan da manuk kakay-o' it sayur kuh.
 PAST.AUX GEN chicken scratch-OV.ATMP NOM vegetable 1sg.GEN
 'My vegetable plants were scratched by the chickens.'
- c. Naan okuh tinduk-o' do wulanut.
 PAST.AUX 1sg.NOM bite-OV.ATMP GEN snake
 'I was bitten by a snake.'
- d. Maan tekau(kuh-ikau) jarum-ai.
 AUX 1sg.GEN-2sg.NOM needle-DV.ATMP
 'I will give you a shot.'
- e. Mangay okuh poh dagang-ay do buduy.
 AUX.IMPER 1sg.NOM yet buy-DV.ATMP ACC watermelon
 'Please buy some watermelon for me.'
- f. Amu yah noh mangan garaso' ilo karabau.
 NEG 1pl.ex.GEN already AUX slaughter -OV.ATMP that(NOM) buffalo
 'We are not going to slaughter that buffalo any more (i.e., we changed our plans).'

The word order of the Aux+V construction is quite similar to that of the complex predicate construction, because both are monoclausal. However, the distribution of inflectional features is very different. In the Aux+V construction, inflectional features are divided between the two verbs. The auxiliary is inflected for tense and mood, as illustrated above, but unspecified for voice. The main verb which follows it appears in the atemporal form, unspecified for tense and mood, but is inflected for voice; and it is this voice marking that determines the case assigned to each of the arguments in the clause. Thus there is no conflict between the two verbal elements in terms of tense, mood or voice, and the two can be thought of as “co-heads”.

In the complex predicate construction, however, the two verbs may clash in all three of these categories. V_2 is invariant, appearing fully specified for active voice, non-past tense, and non-imperative mood. V_1 is normally inflected for a non-active voice, often takes past tense, and may appear in the imperative as in (1d,e), (2c), etc. Moreover, V_1 often appears in the non-volitive modality, as in (2a,d), (9b-c) and (11a-c), while V_2 cannot. V_1 is clearly the syntactic head, and its features determine the properties of the clause as a whole.

The complex predicate construction can itself contain an auxiliary verb. Specifically, the V_1 in the RCP can be marked with an auxiliary, provided it makes sense to assert that the actor intended to bring about the result named by V_1 . Some examples are given in (15). Of course, V_2 can never be preceded by an auxiliary.

- (15) a. Minaan kuh pi-toning-o' it sapi om karabau Ø-po-ogot.
 PAST.AUX 1sg.GEN RECIP-near-OV.ATMP NOM cow and buffalo AV-TR2-tie
 'I tied up the cow and the buffalo near each other.'
- b. Minaan dialo onong-o' momilai it tanak kuh.
 PAST.AUX 3sg.GEN near-OV.ATMP AV-TR1-throw NOM child 1sg.GEN
 'He intentionally hit my child by throwing something.'

- c. Minaan owi-o' di Jaiwan mangakan i rinapa.
 PAST.AUX finish-OV.ATMP GEN Jaiwan AV-TR1-eat NOM cooked.food
 'Jaiwan intentionally ate up all the food.'

3. Resultative complex predicates (RCPs)

In the resultative complex predicate (RCP), the inflected verb (V_1) which functions as the syntactic head names the result, while the “dependent” verb (V_2) names the activity which brings about this result. In the examples in (2), V_1 names a specific result state; some further examples of this pattern are given in (16). However, in other cases V_2 expresses the extent of the action, as illustrated in (17).

- (16) a. Pi-apat-on nuh mangalapak(m-poN-lapak) inoh niyuw.
 RECIP-four-OV 2SG.GEN AV-TR1-split that(NOM) coconut
 'Split that coconut into four parts.'
- b. P[in]i-so-sokot-Ø dialo ah babas monombir.
 RECIP[PST]-REDUP-join-OV 3sg NOM cloth.scrap AV-TR1-sew
 'She joined the scraps of cloth together sewing (i.e., sewed the scraps together).'
- c. Irot-on noh Ø-po-otub i pati ki.
 tight-OV FOC AV-TR2-close.lid NOM box okay?
 'Close the box tight, okay?'
- d. Pa-rasak-ai mangansak inoh rinapa ki.
 CAUS-dry.up-DV.IMPER AV-TR1-cook that(NOM) viand okay?
 'Cook that food until it is dry, all right?'
- (17) a. N-o-rikot kuh momilay(m-poN-pilay) i walay nuh sid tupak.
 PST-NVOL-arrive 1S.GEN AV-TR1-throw NOM house your DAT other.side
 'I threw (something) all the way to your house across the river.'
 (lit: 'Your house across the river was reached by me throwing something.')
- b. N-a-awi-Ø do kara mangakan it togilai yah.
 PST-NVOL-finish-OV GEN monkey AV-TR1-eat NOM maize 1pl.ex.GEN
 'Monkeys ate up all of our maize.' (lit: '... finished the maize eating.')
- c. Amu poh n-o-pupus-an di Odu manangon i Majabou.
 not yet PAST-NVOL-end-DV GEN Granny AV-TR1-folk.tale NOM Majabou
 'Granny has not finished telling the story of Majabou.'

We noted in the introduction that in manner complex predicates (MCPs), the “pivot” (or grammatical subject) of the construction is typically not a semantic argument of V_1 . This is not the case for the RCP. The pivot of the RCP must be the Undergoer (i.e., affected argument) of the first verb, and is frequently the Undergoer of the second verb as well.

The two verbs in the resultative construction express a single complex transitive event which involves a unique Actor and a unique Undergoer. If either A or U is an argument of both verbs, as is frequently the case, each verb must select the same A and/or U. But it is not always

necessary for both of these arguments to be shared, because either verb may be inherently intransitive. The Undergoer must always be an argument of V_1 and the Actor must always be an argument of V_2 . This implies that V_1 must be either transitive or unaccusative, while V_2 must be either transitive or unergative. Examples (2a) and (17a) illustrate unaccusative verbs occurring as V_1 ; the examples in (18) illustrate unergative verbs occurring as V_2 .

- (18) a. Amu o-owit-Ø dit tombolog t[um]ulud it wulanut.
 not NVOL-lift-OV GEN bird [AV]fly NOM snake
 ‘The bird was not able to fly off carrying the snake.’
- b. N-a-dansaran-an dati m-ogom ah takod da tanak
 PST-NVOL-sit.on-DV likely AV-sit NOM foot GEN child
 sagai m[in]og-iad noh.
 therefore AV[PST]-pog-weep already
 ‘Someone probably sat down squarely on the child’s foot, that is why he started crying.’

It is possible for V_2 to introduce a new argument, provided that argument is not its Undergoer. In example (19), V_2 introduces an instrument (the spear) which is not an argument of V_1 .

- (19) N-o-onong-Ø dialo monokon do tandus i koridai.
 PST-NVOL-hit-OV 3sg AV-TR1-hurl ACC spear NOM barking.deer
 ‘He hit the deer with a spear.’ (lit: ‘He hurling a spear hit the deer.’)

Consider the pair of sentences in (20). Example (20a) is a biclausal sentence like those discussed in the previous section. However, there is no way to paraphrase this example using the resultative complex predicate construction. The attempted paraphrase in (20b) is ungrammatical because the two verbs have distinct Actors. The root *odop* ‘sleep’ is an unergative verb, as seen in the use of *noko-* rather than *no-* for the non-volitive form; its only argument (‘child’) is an Actor.⁷ The Actor of the second verb is ‘mother’. Because the two Actors are distinct, the complex predicate is ungrammatical.

- (20) a. Noko-odop it tanak b[in]ayuk-Ø dit tidi.
 PST-NVOL-sleep NOM child [PST]-swing-OV GEN mother
 ‘The child fell asleep when its mother swung it (in a cloth sling/baby hammock).’
- b. *Nokoodop dit tidi mamayuk it tanak.
 PST-NVOL-sleep GEN mother AV-TR1-swing NOM child

The pair of sentences in (21) illustrates the uniqueness constraint for Undergoers. The biclausal sentence in (21a) cannot be paraphrased using the resultative complex predicate construction. The attempted paraphrase in (21b) is ungrammatical because the two verbs have distinct Undergoers: the sole is the U of ‘wounded’, while the nail is the U of ‘stepped on’.

⁷ There is no such form as **no-odop* for ‘was put to sleep’. In order to express the meaning ‘put to sleep’, one must use the causative prefix as in *po-odop(-on)*.

(*po-*) is used, the Undergoer is the theme. In this case there need not be any change of ownership, but there must be a physical transfer of possession. This semantic contrast is illustrated in (23). The noun *tana* is ambiguous between the meanings ‘land’ and ‘dirt’. Thus example (23a) could mean either ‘I will give you some land’ or ‘I will give you some dirt’; but the former meaning is more likely, since the *poN-* form implies change of ownership and dirt is seldom given as a gift. However, the *po-* form in (23b) implies a physical transfer of possession. Since a piece of land cannot be physically moved (at least, not by human agency), example (23b) can only mean ‘I will give you some dirt’.

- (23) a. Mana’ak okuh dikau do tana.
 m-poN-ta’ak okuh dikau do tana.
 AV-TR1-give 1sg.NOM 2sg.DAT GEN earth
 ‘I will give you some land/dirt.’
- b. Ø-pa-ta’ak okuh dikau do tana.
 AV-TR2-give 1sg.NOM 2sg.DAT GEN earth
 ‘I will hand you some dirt (*land).’

Since the two “transitivity” prefixes occur only in verb forms whose Undergoer is distinct from the pivot, a verb that contains one of these prefixes can never occur as V_1 of the RCP. This is because pivot of the RCP must be the Undergoer of V_1 .

The contrast between TR1 and TR2 provides a valuable probe for testing the structure of the resultative construction. Since the second verb in the RCP must appear in active voice, it will (if it is transitive) bear one of these two prefixes. If the transitivity prefix on V_2 selects an argument other than the Undergoer of V_1 , the construction is ungrammatical. To illustrate, the RCP examples in (24b-c) are both intended to be equivalent to the biclausal sentence in (24a). In all three sentences, the Undergoer of the first verb (*naawi*) is the theme (‘money’). However, in (24b) the use of TR1 indicates that the Undergoer of the second verb (*manaak*) is the recipient. This violation of the single Undergoer constraint renders the sentence ungrammatical. Sentence (24c) is identical except for the use of TR2, and is fully grammatical.

- (24) a. Naawi it siin kuh nitaak kuh sid tongo tanak.
 PST-NVOL-finish NOM money my PST-IV-give 1sg.GEN DAT PL child
 ‘I used up all my money giving it to my kids.’
- b. *Naawi kuh *manaak* sid tongo tanak it siin kuh.
 PST-NVOL-finish 1sg.GEN AV-TR1-give DAT PL child NOM money my
- c. Naawi kuh *pataak* sid tongo tanak it siin kuh.
 PST-NVOL-finish 1sg.GEN AV-TR2-give DAT PL child NOM money my
 ‘I used up all my money giving it to my kids.’

A similar contrast can be shown with the root *pilay* ‘throw’. The examples in (25) are based on (17a). The use of TR1 in (25a) indicates that the Undergoer of V_2 is the goal or target (‘throw at, pelt’). Since the nominative argument (‘mangoes’) must be interpreted as the Undergoer of V_1 , the use of this prefix forces a bizarre interpretation under which the house is being thrown at

Actor arguments seems to be required by the uniqueness constraints discussed above, and is easily accounted for under either a lexical or a syntactic analysis.

- (27) a. Migogol ilo tasu, minogiad ilo tanak
 AV-RECIP-wrestle that(NOM) dog AV[PST]-*pog*-weep that(NOM) child
 tu n-ajang-an.
 because PST-affect-DV
 ‘Those dogs were fighting, and that child cried because he got mixed up in it.’
- b. Okon-ko pi-gogol-on ino tasu, o-pilat-an dati.
 don’t RECIP-wrestle-OV that(NOM) dog NVOL-wound-DV likely
 ‘Don’t make those dogs fight each other, they will get wounded.’
- c. Pi-toluod-on noh yo’alo songobpinee, okon.ko pi-odu-on.
 RECIP-kindness-OV FOC 3pl.NOM siblings don’t RECIP-quarrel-OV
 ‘Cause those siblings to treat each other kindly, don’t make them quarrel with each other.’
- (28) a. P[in]i-uruk-Ø dialo Ø-pa-akan at sompusasawo.
 [PST]-RECIP-eat.together-OV 3sg AV-CAUS-eat NOM married.couple
 ‘He allowed the married couple to eat together.’
- b. Amu obbulih kawoh ot¹⁰ pi-go-gowul-on mangansak
 NEG allowed PRTCL NOM RECIP-REDUP-mix-OV AV-TR1-cook
 o tumbus tu kobunsala kah.
 NOM veggie because AV.NVOL-prone.to.error QUOT
 ‘You shouldn’t cook different kinds of vegetables together, they say it can make you prone to slips of the tongue.’
- c. Pi-abpay-on nopoh Ø-po-wiliw ilo torigi toh!
 RECIP-cross-OV only AV-TR2-lie.flat that(NOM) house.post PRTCL
 ‘Lay those posts crossways to one another.’

When V_1 contains the causative prefix *po-*, we would again expect the causer to be interpreted as the Actor of V_2 . However, as illustrated in (29), it is the causee rather than the causer that receives this interpretation.

- (29) a. N-i-pa-awi kuh di Jaiwan mangakan it rinapa.
 PST-IV-CAUS-finish 1sg.GEN ACC Jaiwan AV-TR1-eat NOM viand
 ‘I caused/allowed Jaiwan to eat up all the cooked food.’
- b. Subai ipeerot noh di tanak pootub i tuung.
 PRT IV-CAUS-tight FOC ACC child AV-TR2-cover NOM box
 ‘You’d better make the child close the lid of the box tightly.’

¹⁰ Janama says this should be *dot* ‘COMP’.

This proposal seems plausible because there are some gerundive uses of “infinitival” verb forms (equivalent to a simple non-past form which is unmarked for aspect, mood or modality). This usage seems to be more common with Actor Voice forms, as illustrated in (31a-b), but is also possible with non-active voices as in (31c-d). (Notice that the implicit arbitrary or generic referent in (31c) is the pivot, while in (31d) it is the agent.)

- (31) a. Ara’at ot [Ø-po-pi-oduw do tulun sompusasawo].
 bad NOM AV-CAUS-RECIP-quarrel ACC person married.couple
 ‘To cause a married couple to quarrel is evil.’
- b. [Monimba’al do tulun] nga ara’at=i’.
 AV-TR1-slander ACC person also bad=PRTCL
 ‘Slandering people is evil too.’
- c. [Tinduk-on do wulanut] nga ka-patay=i’.
 peck-OV GEN snake also AV.NVOL-kill=PRTCL
 ‘Getting bitten by a snake can kill you too.’
- d. [Pi-igol-on ot tasu] nga amu=i’ obbulih tu ko-bunsut.
 RECIP-dance-OV NOM dog also NEG=PRTCL allowed because AV.NVOL-curse
 ‘Making dogs dance with each other is not allowed either, because you could be struck by the *bunsut* curse (be swallowed into the ground).’

A gerundive analysis would explain why V_2 cannot be inflected for tense/aspect/mood. The fact that the gerund is predicated of the Actor would explain the uniqueness constraint for Actors, and might be made to explain why V_2 always appears in the Actor Voice form. The uniqueness of the Undergoer is not so easy to account for under this analysis; some special syntactic mechanism, perhaps a special kind of control, would have to be assumed. But the great advantage of this proposal is that it makes an exotic (i.e., unusual) construction seem much more familiar, that is, describable in more conventional terms.

One argument against the gerundive analysis was given in the previous section: if the gerund V_2 must be predicated of the Actor, there is no obvious way to account for the meaning of the causative examples in (29). A second problem for the analysis concerns the lexical properties of V_1 . We have noted that V_1 may be either transitive or unaccusative when it is used by itself. In the resultative complex predicate, however, V_1 is always syntactically transitive as indicated by the pattern of case assignment for the Actor and Undergoer. Along with this shift in valence, there may be minor but unpredictable changes in semantic content, a characteristic feature of lexical processes.

Some examples of these changes are presented in (32). The verb form that appears as V_1 in (32a), *norikot*, can be used alone as an unaccusative verb meaning ‘has arrived’; but in the resultative (32a), it functions as a transitive verb meaning ‘to reach (e.g. by throwing)’. If the second verb were not present, *norikot* could not be used in this way. Similarly, the verb form *narasak* in (32b) is an unaccusative verb meaning ‘dried up’. It takes on a transitive sense in the resultative construction; but to be used in this sense without the second verb, e.g. if someone

dries up a stream or pond to catch the fish, an extra suffix would be needed: *narasakan* or *rinasakan*.

- (32) a. N-o-rikot kuh *(momilay) i walay nuh. (cf. 3a)
 PST-NVOL-arrive 1S.GEN AV-TR1-throw NOM house your
 ‘I threw (something) all the way to your house.’
- b. N-a-rasak do karabau *(monginum) a weeg. (cf. 2a)
 PST-NVOL-dry.up GEN buffalo AV-TR1-drink NOM stream
 ‘The stream was drunk dry by buffaloes.’

A somewhat similar pattern also occurs in English. Unergative verbs occurring in resultative constructions often take on a slightly different sense, as illustrated in (33). Some authors, following Simpson (1983) have interpreted this to mean that these verbs must undergo a change in argument structure in order to appear in the resultative, although this conclusion is rejected by Levin and Rappaport Hovav (1995) and Carrier and Randall (1992).

- (33) I shouted myself *(hoarse).
 I cried myself *(to sleep).
 I worked my fingers *(to the bone).
 She drank him *(under the table).

The same considerations apply even more so to Manner examples like those in (1), in which the pivot is rarely if ever a possible semantic argument of V_1 . I would not say that the gerundive analysis is impossible, but I do not see how to make it work. Given the information currently available, I feel that the complex predicate analysis is more plausible.

6. Conclusion

The analysis presented here should be considered tentative, since research into this construction is still in its preliminary stages. The evidence against a clause boundary between the two verbs seems to me fairly solid. The uniqueness effects and obligatory argument sharing seem most naturally described in terms of a common argument structure. The ordering paradox that arises when V_1 is a causative form is easy to resolve if complex predicate formation is a lexical process, but very awkward if the two verbs stand in a purely syntactic relationship to each other. Comparative evidence from the Formosan languages could help to resolve some of these questions. It would also be helpful to know whether this construction occurs in any languages within the Philippines.

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