Resultative complex predicates in Kimaragang Dusun

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(1) **MANNER COMPLEX PREDICATES** (MCPs): V_1 = manner, V_2 = action

    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.'

    c. Basag-on noh mongogodong(m-poN-godong) ilo tali …
       strong-OV FOC AV-TR1-pull that(NOM) rope
       'Pull hard on the rope (when you enter the tug-of-war).'

    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 runggou, a-babak dati.
       careful-DV AV-TR2-lay that(NOM) jar NVOL-shatter likely
       'Put that jar down gently or it might break.'

    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) **RESULTATIVE COMPLEX PREDICATES** (RCPs): V_1 = result state or extent, V_2 = action.

    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!'

(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 at up all of our maize.' (lit: '… finished the maize eating.')

Defining features of the construction: V_2 is always in Active Voice and unmarked for TAM;
nominative case on Pivot is assigned by V_1, even when it is not a semantic argument of V_1.
See Holmer (2004) and Chang (in press) for similar examples in several Formosan languages.

(5) **Kimaragang TAM affixes:**

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

2.1 Evidence for monoclausality

a. the two verbs cannot be separated by a pause, conjunction, complementizer, linker, or any
       other marker of clause boundaries
b. there is no medial position that can host 2P clitics (see 8b)

(7) a. Suwab-suwab *okuh*   manalu   do   pulut.
    every.day   1sg.NOM   AV:TR1: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).'

(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.'

c. the undergoer gets nominative case marking from V$_1$ even when it follows V$_2$; therefore
   undergoer must be a clausemate of V$_1$. It can be topicalized, clefted etc. in "matrix" S
   (these examples cannot be instances of long-distance extraction):

(9) a. It   sapi   om   karabau   p[in]i-toning-Ø   kuh   Ø-po-ogot.
        NOM   cow   and buffalo   RECIP[PST]-near-OV   1sg.GEN   AV-TR2-tie
        'The cow and the buffalo I tied up near each other.'

   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?'

Biclausal result-reason sentences: 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.'

(11) a. Noko-pilai   yalo   s[in]ungu-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.'

(12) a. N-o-tuus-Ø   do   karabau   mongotop   i   parai   kuh.   **[RCP]**
         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.   **[biclausal]**
         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

(14) 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.'

   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).'

(15) 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. Argument sharing in RCPs

The two verbs in the resultative construction express a single complex transitive event which involves a unique Actor and a unique Undergoer. 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 (see 2a and 17a), while V_2 must be either transitive or unergative (18a).

(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.'

The RCP in (20b) is ungrammatical, because the two verbs have different Actors.

(20) a. Noko-odop   it   tanak b[in]ayuk-Ø dit tidi.   **[biclausal]**
      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 RCP in (21b) is ungrammatical, because the two verbs have different Undergoers.

(21) a. Nopilat   itit   lukap kuh nokoolok   do=pansang. **[biclausal]**
      PST-NVOL-wound this.NOM sole   my PST.NVOL.AV-step.on ACC=nail
      'The sole of my foot got wounded from stepping on a nail.'

   b. *Nopilat   kuh   mongulok   do pansang itit   lukap kuh.
      PST-NVOL-wound 1sg.GEN AV-TR1-step.on ACC nail   this(NOM) sole   my
      (intended: 'The sole of my foot got wounded from stepping on a nail.')

(22) a. Amu okuh   ka-waya   dikau   suwab
      not   1sg.NOM AV.NVOL-accompany 2sg.ACC tomorrow

tu'   g[um]amas / #mangagamas   okuh   do   parai.
because   [AV]-cut.grass   AV-TR1-cut.grass   1sg.NOM   ACC   rice
'I can't go with you tomorrow because I have to clear away the grass around my rice plants (#cut down my rice plants).'

b. Amu   nuh   n-a-awi-Ø   g[um]amas / #mangagamas   i   parai.
not   2sg.GEN   PST-NVOL-finish-OV [AV]-cut.grass AV-TR1-cut.grass   NOM rice
'You didn't finish cutting grass around the rice plants (#cutting down the rice plants).'

Morphological evidence for argument sharing: when the Undergoer of a transitive verb is not selected as subject (= pivot), the verb bears one of two "transitivity" prefixes, glossed here as TR1 and TR2. These prefixes provide partial information about the semantic role of the Undergoer (= affected argument): TR1 (*poN-*) is used when the Undergoer is a patient, goal or recipient, while TR2 (*po-*) is used when the Undergoer is an instrument or displaced theme (see Kroeger 1996, Kroeger and Johansson 2005 for details).

(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).'

Because of the the Single Undergoer constraint on RCPs, the transitivity prefix on V_2 must select the pivot/Undergoer of V_1, otherwise the construction will be ungrammatical.

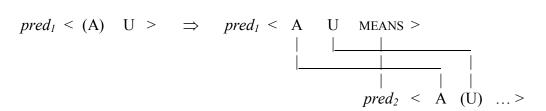(24) a. Naawi   it   siin   kuh nitaak   kuh   sid tongo tanak.
PST-NVOL-finish NOM money   my PST-IV-give 1sg.GEN DAT PL   child
'I used up all my money giving it to my kids.'   **[biclausal]**

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.'

(25) a. *Naawi   kuh   momilay   dit   walay nuh   it   tongo mangga.
PST-NVOL-finish 1sg.GEN AV-TR1-throw ACC   house your NOM PL   mango
(can only mean: 'I finished off the mangoes by throwing your house at them.')

b. Naawi   kuh   popilay   sid   walay nuh   it   tongo mangga.
PST-NVOL-finish 1sg.GEN AV-TR2-throw DAT   house your NOM PL   mango
'I threw all the mangoes at your house.' (cf. 17a)

4. A lexical analysis

(26) **lexical rule of resultative complex predicate formation**

$$pred_1 \ < \ (A) \quad U \ > \quad \Rightarrow \quad pred_1 \ < \ A \quad U \quad \text{MEANS} >$$

$$pred_2 \ < \ A \quad (U) \quad … >$$

The informal represention in (26) captures the following intuitions: V$_1$ may be either transitive or unaccusative when used by itself, but the complex predicate as a whole is always transitive, and both the Actor and Undergoer are governed and case marked by V$_1$. V$_2$ may be transitive or unergative, and may even introduce additional arguments such as instruments ; but its Actor and Undergoer (if any) may not be distinct from the Actor and Undergoer of V$_1$. Shared arguments are identified by the process of argument structure merger (Alsina 1992), and receive a single syntactic expression. Notice the different interactions of RCP formation with reciprocal vs. causative derivations:

(27) 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.'

(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.'

(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.'

     c. Ipobirud   nopo   dialo   manganu   at   tobu   toh.
         IV-CAUS-twist   only   3sg   AV-TR1-take NOM   sugar.cane   PRT
         'Just have him twist the sugar cane off (pick by twisting).'

(30) apparent violation of the Single Actor constraint in (29) can be resolved through rule
        ordering:

     a. **Base form:**   *tighten* $< A , U >$

     b. **complex pred.**   *tighten* $< A , U , \text{MEANS} >$

c. **causative**   CAUSE < A ,   EVENT >
                                                |
                                  tighten   < A , U , MEANS >

5. A possible alternative analysis?

Maria Polinsky (p.c.) has suggested that V_2 be analyzed as a kind of gerund or participial adjunct, a depictive secondary predicate predicated of the Actor of V_1. (similar to the closest English equivalent of RCP examples like (2a): 'The stream was dried up by buffaloes drinking.') Note gerundive uses of "infinitival" verb forms (simple non-past form unmarked for aspect, mood or modality):

(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).'

gerundive analysis accounts for:
        a. V_2 cannot be inflected for tense/aspect/mood
        b. uniqueness constraint for Actors
        c. possibly (with additional assumptions??) V_2 always appears in the Actor Voice form

gerundive analysis does not account for, but might be compatible with:
        a. uniqueness constraint for Undergoers

gerundive analysis does not account for, and may be incompatible with:
        a. interpretation of causative examples in (29)
        b. changes in valence and semantic content of V_1
                (a characteristic feature of lexical processes)

(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.'

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

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