How Can One Kill Someone Twice in Indonesian? Causal Pluralism and the Tripartite VP Structure

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1. Introduction

Over the last ten years or so, there have emerged two important discoveries regarding causative accomplishment verbs, independently developed in the lexical semantic and minimalist literature.

- The Agent Control Hypothesis on non-culminating, zero change-of-state/CoS construals of causative accomplishments/defeasible causatives (Demirdache and Martin 2015; Martin 2015, 2019)
- The Tripartite VP hypothesis (i.e., the three-layered Voice-v-V structure) for the traditional verb phrase (see Pylkkänen 2002, Harley 2009, 2013, and many other references cited therein)

Here, I investigate the fine structure and interpretation of causative accomplishment verbs in Indonesian, a language which has heretofore never been studied with focus on these interface topics, with a view to integrating the two strands of research in a fruitful manner.

Roadmap

- I introduce data illustrating the non-culminating, zero change-of-state construals with causative accomplishment verbs in Indonesian. The data confirm the Agent Control Hypothesis.
- I address the question why this construal is possible with agentive causation, but not with non-agentive causation, and develop an account of this causation-based dichotomy.
- The account utilizes Martin’s (2019) event-tokenization theory of causation types framed within the Tripartite VP Hypothesis; agentive causation is tokenized by two sub-events (agent’s action and theme’s CoS) while non-agentive causation is tokenized by only one event (theme’s CoS).

2. Non-Culminating Change-of-State Construals and the Agent Control Hypothesis

- It is well-known since Tai (1984) that in Mandarin Chinese, causative accomplishment verbs such as 杀 sha ‘to kill’ do not necessarily entail the resulting CoS, as shown in (1).¹

(1) Zhangsan {sha-le /# sha-si-le} Lisi liangci, Lisi dou mei si.
Zhangsan kill-PERF / kill-die-PERF Lisi twice Lisi QUANT NEG die
‘Zhangsan killed Lisi twice, but Lisi didn’t die.’ (Tai 1984:291)

I thank Nobu Goto, Heidi Harley, Shin-Ichi Kitada, Si Kai Lee, Jun Jie Lim, Hannah Lin, Keely New, Jian Gang Ngui, Tomoko Tamura and my students in my advanced syntax seminar (Spring 2019) at Seisen University for discussions on the general ideas presented here. Special thanks to Dwi Hesti Yuliani, my Indonesian consultant, for all the Indonesian data and wisdom on the subject matter of this paper and to Fabienne Martin for very helpful answers to my inquiries on her latest research on non-culminating accomplishments. This research has been supported by the annual education/research grant (April 2019–March 2020) and the faculty research development grant for overseas conferences from Seisen University (May 2019) as well as by JSPS KAKENHI Grant Number JP19K00560 (April 2019–March 2023).

¹ Jian Gang Ngui (personal communication, January 2019) points out to me that the sentence in (1) strongly entails the result state when not accomplished by frequency adverbs such as liangci ‘twice’, however.
• Causative accomplishment verbs in Indonesian such as *bunuh* ‘to kill’ and *tutup* ‘to close’ exhibit the same behavior; they allow non-culminating CoS construals, as shown in (2a, b).

(2) a. Budi *membunuh* Ali, tapi dia tidak mati. (Agent subject)
   Budi kill Ali but he NEG dead
   ‘Budi killed Ali, but he didn’t die.’

   b. Esti *mentutup* pintu, tapi tidak tertetup. (Agent subject)
   Esti close door but NEG close
   ‘Esti closed the door, but it didn’t close.’

• Importantly, the same verbs strictly block this non-culminating, CoS construal when the volitional agent in subject position is replaced with a non-volitional causer, as indicated in (3a, b).

(3) a. # *Gempa bumi* membunuh Ali, tapi dia tidak mati. (Causer subject)
   earth quake kill Ali but he NEG dead
   ‘The earthquake killed Ali, but he didn’t die.’

   b. # *Angin* mentutup pintu, tapi tidak tertetup. (Causer subject)
   wind close door but NEG close
   ‘The wind closed the door, but it didn’t close.’

The contrast between (2) and (3) supports the Agent Control Hypothesis/ACH, defined in (4), which has received ample cross-linguistic support (Demirdache and Martin 2015; Martin 2015, 2019; Martin and Schäfer 2015). See also Lee’s (2015, 2016, 2018) ‘Subject Intention Generalization’ and ‘Complementarity of Intentionality and Affectedness.’

(4) Agent Control Hypothesis (Demirdache and Martin 2015:187)
The availability of non-culminating construals for accomplishments correlates with the control of the agent over the described event: whenever an accomplishment … admits a non-culminating construal, this is the case only if we can ascribe agenthood to the subject. If the subject of the very same verb is a (pure) causer, culmination cannot be cancelled.

<table>
<thead>
<tr>
<th>Language Family</th>
<th>Romance/Germanic (French, German, English)</th>
<th>Salish (Halkomelem, Sḵwx̱w7mesh)</th>
<th>Austronesian (Malagasy, Tagalog, Indonesian, Javanese)</th>
<th>Asian (Chinese, Korean, Japanese, Burmese)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-culminating, zero CoS construal?</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Is the subject agent or causer then?</td>
<td>OK Agent * Causer</td>
<td>OK Agent * Causer</td>
<td>OK Agent * Causer</td>
<td>OK Agent * Causer</td>
</tr>
</tbody>
</table>

Table 1: A Sample of Languages/Language Families in Support of the Agent Control Hypothesis

3. Causal Pluralism at the Syntax-Semantics Interface within the Tripartite VP Hypothesis

The Tripartite VP Hypothesis (Fujita 1993, 1994, 1996; Travis 2000, 2002; Ramchand 2008; MacDonald 2008; Alexiadou et al. 2006; Pylkkänen 2002; Borer 2005; Cuervo 2003; Harley 2009, 2013, among others) has received wide currency in the minimalist literature.

I propose that causative accomplishment verbs in Indonesian are made up of a) the Agent-introducing Voice head, b) the Causer-introducing aspectually oriented v head, and c) the lexical head denoting the resulting CoS, as schematically represented in (5).
Following the spirit of Martin’s (2019) event-tokenization theory of causal pluralism (see also Martin 2015), the VoiceP and vP layers each introduce a sub-event token. More specifically:

- Agentive causation tokenized by two sub-event tokens: agent’s action introduced through VoiceP and theme’s CoS introduced through vP.
- Non-agentive causation tokenized by only one sub-event token: theme’s CoS introduced through vP.

(5)  VoiceP ⇒ Intentionality Domain

Agentive causation

VoiceP ⇒ Telicity Domain

Non-agentive causation

(6) Lexical semantic representation for ergative verbs like break
[[x DO-SOMETHING] CAUSE [y BECOME BROKEN]]
(Levin and Rappaport-Hovav 1995:108)

How can one kill someone twice in Indonesian when he/she is a volitional causer, but not a causer?

<table>
<thead>
<tr>
<th>sub-event tokens</th>
<th>Agentive Causation Type (Voice-v-V)</th>
<th>Non-Agentive Causation Type (v-V)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Agent’s action, Theme’s CoS</td>
<td>Theme’s CoS</td>
</tr>
<tr>
<td>Target of negation</td>
<td>Theme’s CoS</td>
<td>Theme’s CoS</td>
</tr>
<tr>
<td>Non-Culminating, CoS construal</td>
<td>YES</td>
<td>NO</td>
</tr>
</tbody>
</table>

Table 2: Causal Pluralism at the Syntax-Semantics Interface within the Tripartite VP Structure

(7) a. # Ali mati, tapi dia tidak mati. b. # Pintu tertutup, tapi tidak tertutup.

‘Ali died, but he didn’t die.’ ‘The door closed, but it didn’t close.’

3.1. Morphological Evidence for Distinguishing Voice (Agentivity) from v-V (Causation/Result)

→ Tagalog neutral form (N) vs. the ability/involuntary action form (AIA) (Dell 1983/1984)

(8) "The lexical meaning of the root *tulak* involves two distinct ideas. One has to do with the agent’s engaging in a certain action or “Maneuver” (pushing the rock), and the other has to do with a certain “Result” that may (but need not) be brought about by that Maneuver (the displacement of the rock).” (Dell 1983/1984:181)
3.2. Morphosyntactic Evidence for the vP Layer = Telicity Domain (with Causers)


"Malagasy is, in general, an ‘atelic’ language in that the unmarked way of describing an event, which implicates but does not entail the end point. There is, however, a way to insist on the end point of the event having been achieved…. With the active transitive we use…. maha-. This has the double effect of insisting on the end point of the event and marking the AGENT non-volitional.” (Travis 2005:361)

namory ny ankizy ny mpampianatra, nefa tsy nanana fotoana izy.
PAST.an.meet the children the people but NEG PAST.have time they
‘The teachers gathered the children, but they didn’t have time.’ (Travis 2000:172,173)

nahavory ny ankizy ny mpampianatra, #nefa tsy nanana fotoana izy.
PAST.a.ha.meet the children the people but NEG PAST.have time they
‘The teachers gathered the children, but they didn’t have time.’ (Travis 2000:173)

a. Tsara ny trano.
   beautiful the house
   ‘The house is beautiful.’

b. Mahatsara ny trano ny voninkano. (Causer)
PRES.a.ha.beautiful the house the flower
   ‘The flowers make the house beautiful.’

c.*Mahatsara ny trano Rabe. (Agent)
PRES.a.ha.beautiful the house Rabe
   ‘Rabe makes the house beautiful.’ (Malagasy: Travis 2000:175)
4. Semantic Evidence for the Tokenization Approach to Causal Pluralism in Indonesian

Here, I provide two pieces of evidence, drawing on Martin’s (2015, 2019) tests in French/English, that agentive causation has two sub-event tokens while non-agentive causation has one of them.

- Interaction of the two causation types with time-frame adverbials such as *in one hour*
- Interpretation of the two causation types embedded under aspectual heads such as *start*

4.1. Evidence #1: Time-Frame Adverbials

- Time-frame adverbials such as *in one hour* are known to measure the time span between the onset and the result state of a complete eventuality denoted by a verb.

(17) a. Pak Iwan mebunuh ayam dalam waktu sepulu menit, tapi sebernya 
Mr Iwan kill chicken in time ten minute but actually 
ayam-nya mati hanya dalam waktu satu menit. (agentive causation) 
chicken-the dead only in time one minute

‘Mr. Iwan killed the chicken in ten minutes, but actually the chicken died only in one minute.’

b. #Gempa bumi mebunuh ayam dalam waktu sepulu menit, tapi sebernya 
quake earth kill chicken in time ten minute but actually 
ayam-nya mati hanya dalam waktu satu menit. (non-agentive causation) 
chicken-the dead only in time one minute

‘The earthquake the chicken in ten minutes, but actually the chicken died only in one minute.’

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<table>
<thead>
<tr>
<th>Time Frame</th>
<th>Eventualities</th>
<th>Sub-event tokens</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00am</td>
<td>Iwan’s sequence of preparatory action(s) targeting the chicken (e.g., decision to put his intention into action, bring an instrument)</td>
<td>agent’s action</td>
</tr>
<tr>
<td>8:09am</td>
<td>Chicken’s CoS (change from the alive state to the dead state)</td>
<td>theme’s CoS</td>
</tr>
<tr>
<td>8:10am</td>
<td>(total duration: 10 minutes)</td>
<td></td>
</tr>
</tbody>
</table>

Scenario expressed by (17a)

-->(17a) introduces two sub-events: agent’s action and theme’s CoS. So, the time span of the latter sub-event may be shorter the time span of the whole causing event which also contains the former.

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Scenario expressed by (17b)

--> (17b) has only one sub-event token: theme’s CoS. Hence the entire causing event would be construed as completed in both ten minutes and one minute, leading to a contradiction.
4.2. Evidence #2: Complementation under Aspectual Verbs

- When a causative VP is embedded under aspectual verbs like *mulai* ‘to start’, such a structure requires the CoS of the theme to start with a causer, but not necessarily with an agentive subject.

(19) a. Pak Iwan mulai membakar ikan. (agentive causation)
   Mr Iwan start burning fish
   ‘Mr. Iwan started burning the fish.’
   ➔ Some preparatory action by Iwan must have started.
   ➔ However, no change developing toward the intended result has to happen yet.
      (e.g., the fish may remain exactly in the same shape/color as before…)

b. Api mulai membakar ikan. (non-agentive causation)
   fire start burn fish
   ‘The fire started burning the fish.’
   ➔ The fish has already started undergoing some change leading to the intended result.
      (e.g., the fish turned to change its surface color to black…)

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(19a) involves two sub-event tokens: agent’s action and theme’s CoS. *mulai* ‘to begin’ modifies the onset of the agent’s action (i.e., a series of actions the subject may take to do the burning)

(19b) involves only one sub-event token: theme’s CoS. Thus, *mulai* ‘to begin’ can only modify the onset of the theme’s CoS that would lead to the expected outcome (i.e., the burned state).

5. Conclusion

The analysis proposed represents a successful integration of the two recent developments independently argued for in the minimalist and lexical semantic literature on causative accomplishments, respectively.

- The Tripartite VP Hypothesis (Voice-v-V layers) for the traditional verb phrase structure
- Martin’s 2019 tokenization-based theory of the Agent Control Hypothesis/two causation types

Three important Take-Aways today:

- The paper adds novel data from Indonesian to a growing body of recent work on the syntax and semantics of causative accomplishments and the role of agentivity in natural language.

- The data discussed today lend further support for a grammaticalized distinction between agents and causers within syntactic representations from a new angle of non-culmination, a distinction which has been motivated mainly on morphological grounds (Harley 2013).

- The overall result of this paper vindicates the emerging consensus in the syntax-semantics literature that event structure is isomorphic to syntactic structure in non-trivial ways (Travis 2000, 2005, 2010, among others).
References


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