

How Can One Kill Someone Twice in Indonesian?

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1. Introduction ¹

Over the last five years or so, there has emerged an important empirical discovery regarding the interpretation of causative accomplishment verbs known as the Agent Control Hypothesis/ACH (Demirdache and Martin 2015; Martin 2015, 2019), which regulates the possibility of non-culminating, zero change-of-state (CoS) construals of this lexical semantic class. In this paper, I investigate the structure and interpretation of accomplishment verbs in Indonesian, a language which has heretofore never been studied with focus on this particular topic.

The present paper is organized as follows. In section 2, I introduce core data illustrating the non-culminating, zero CoS interpretation with causative accomplishment verbs in Indonesian. The data will be used to confirm the typological robustness of the ACH. In section 3, I address the question why this interpretation is possible with agentive causation, but not with non-agentive causation, and develop an account of this agentivity-driven split pattern. The account utilizes Martin's (2019) event-tokenization theory of causation types, whereby agentive causation is tokenized by two sub-event tokens – agent's action and theme's CoS – while non-agentive causation is tokenized by only one sub-event token – theme's CoS. In section 4, I provide two independent pieces of evidence in favor of my proposed analysis. Section 5 is the conclusion.

2. Non-Culminating CoS Construals and the Agent Control Hypothesis

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

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- (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)

Causative accomplishment verbs in Indonesian such as *bunuh* ‘to kill’ and *tutup* ‘to close’ exhibit the same behavior in that they allow non-culminating CoS construals, as shown in (2a, b).

- (2) a. **Budi** membunuh Ali, tapi dia tidak mati. (Agent)
 Budi kill Ali but he NEG die
 ‘Budi killed Ali, but Ali didn’t die.’
 b. **Esti** menutup pintu, tapi tidak tertutup. (Agent)
 Esti close door but NEG close
 ‘Esti closed the door, but it didn’t close.’

Importantly, however, the same verbs strictly block this construal when the volitional agent in subject position is replaced with a non-volitional causer, as witnessed by the semantic anomaly of the examples in (3a, b), which minimally differ from the examples in (2a, b) in terms of the subject thematic role (agent vs. causer).

- (3) a. **Gempa bumi** membunuh Ali, #tapi dia tidak mati. (Causer)
 quake earth kill Ali but he NEG die
 ‘The earthquake killed Ali, but he didn’t die.’
 b. **Angin** menutup pintu, # tapi tidak tertutup. (Causer)
 wind close door but NEG die
 ‘The wind closed the door, but it didn’t close.’

The contrast between (2) and (3) supports the 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.

The ACH has also shown to be typologically robust. Some representative examples of languages from different language families are given below to indicate the cross-linguistic validity of the ACH.

- (5) English (Martin and Schäfer 2015:87)
 a. **Ivan** taught me Russian, but I did not learn anything. (Agent)
 b. **Lipson’s textbook** taught me Russian, #but I didn’t learn anything. (Causer)

(6) French (Martin 2015:248)

- a. **Dr Li** m'a soigné, mais je n'ai pas guéri du tout. (Agent)
 Dr Li me=has treated but I NEG=has NEG cured at all
 'Dr. Li treated me, but I didn't recover at all.'
- b. **Ce séjour chez ma sœur** m'a soigné, # mais je n'ai
 this stay at my sister me=has treated but I NEG=has
 pas guéri du tout. (Causer)
 NEG cured at all
 'This stay at my sister's treated me, but I didn't recover at al.'

(7) Salish (Halkomelem/Saanich) (Jacobs 2011, Kiyota 2008)

- a. niʔ cən ɬa:y-t tʰə spəʔəθ ʔiʔ ʔəwə niʔ -əs ɬa:y. (Agent)
 AUX 1ST.SUB die-CTR DET bear and NEG AUX-3SG.SUB die
 'I killed the bear, but it didn't die.'
- b. ləʔə qsən kʷəʔ qʷəy-nəxʷ tə spéʔəs, #ʔiʔ ʔawa s-qʷəy. (Causer)
 AUX 1ST.SUB INF die-NCTR.TR DET bear ACC NEG NOM-die
 'I (accidentally) killed the bear, but it didn't die.'

(8) Japanese (Tsuji-mura 2003)

- a. **Megumi-ga** doa-o sime-ta-kedo, simara-naka-tta-nda-yo-ne. (Agent)
 Megumi-NOM door-ACC close-PAST-but close-NEG-PAST-COP-SFP-SFP
 'Megumi closed the door, but the door didn't get closed.'
- b. **Kyuuna kaze-ga** doa-o sime-ta-kedo, #simara-naka-tta-nda-yo-ne. (Causer)
 sudden wind-NOM door-ACC close-PAST-but close-NEG-PAST-COP-SFP-SFP
 'A sudden window closed the door, but the door didn't get closed.'

To the best of my knowledge, Tsujimura (2003) is the first to explicitly point out the correlation between the availability of non-culminating construals of causative accomplishment verbs and agentivity/intentionality/volitionality from what she calls 'event cancellation' in Japanese; see also Ikegami (1980/1981, 1981, 1985), Kageyama (1996, 2002) for relevant discussions hinting at this correlation. Tsujimura (2003) thus states:

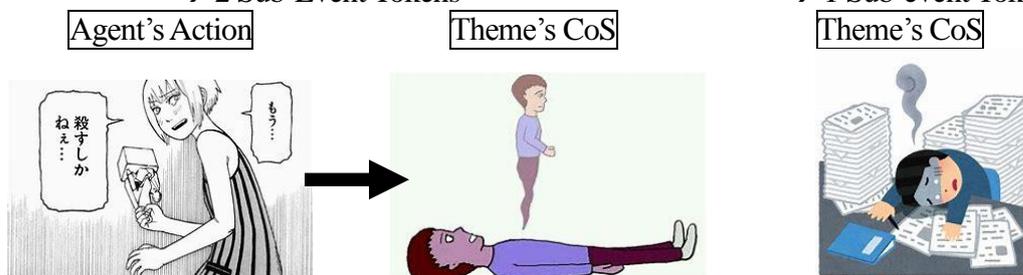
- (9) "...what seems to be common in all languages that exhibit the event cancellation phenomenon is intentionality ... In Japanese, if the agent of the action denoted by the verb does not have the intention to carry out the event but the event instead takes place by accident, cancellation of the event is not possible. ... Thus a remaining challenge is determining whether and how such intentionality should be represented in the lexical representation of verbs." (Tsuji-mura 2003:398)

We have seen thus far that the non-culminating, zero CoS reading of causative accomplishment verbs in Indonesian is sensitive to agentivity of the subject argument. How is it then that agentivity has this repercussion on this reading at the conceptual system of our mind/brain with which the human language faculty interfaces. How is this agentivity correctly represented at the linguistic semantics-conceptual interface? The rest of this paper develops a specific proposal to answer these questions which draws on Martin's (2019) event-tokenization theory of causative types.

3. Causal Pluralism and Martin's (2019) Event Tokenization Theory of Causation Types

Causal pluralism upholds the position that causation is not a monolithic kind of cause-effect relation between things in the external world. I propose that natural language reflects this cognition by having a fundamental division between agentive causation and non-agentive causation. More specifically, following the spirit of Martin's (2019) event-tokenization theory, I propose that the agentive causation type is tokenized at the conceptual interface by two sub-event tokens – agent's action and theme's CoS whereas the non-agentive causation is tokenized by only one sub-event token – theme's CoS. This linguistic version of causal pluralism is visually depicted in (10).

- (10) Linguistic Causal Pluralism within the Event-Tokenization Theory of Causation
- Agentive Causation Type: → 2 Sub-Event Tokens
- Non-Agentive Causation Type: → 1 Sub-event Token



Let us now go back to our original questions we started with: why is non-culminating, zero CoS reading is possible in Indonesian with agentive subjects, but not with causer subjects? Look at Table 2 below, which summarizes the core ingredients of the Causal Pluralism Hypothesis.

	Agentive Causation Type	Non-Agentive Causation Type
sub-event tokens	Agent's action, Theme's CoS	Theme's CoS
target of negation	Theme's CoS	Theme's CoS
non-culminating zero CoS	YES	NO

Table 1: Linguistic Causal Pluralism and the Two Causation Types in Natural Language

Suppose that the negation marker *tidak* 'not' in the second clause in the examples of the agentive causation type in (2a, b) targets the theme's CoS sub-event token alone. It follows then that the agent's action is asserted but the intended result state did not obtain. This characterization of the non-culminating construal of causative accomplishment verbs with agent subjects comports with native speaker's intuitions that in (2a), for example, Budi did the action of killing that would cause Ali to die, but the intended result didn't obtain. Note that this 'partial negation' interpretation is impossible in the examples of the non-agentive causation type in (3a, b). By hypothesis, this causation type is tokenized only by the theme's CoS sub-event token. Accordingly, using the negation marker in the second clause to negate the theme's CoS token asserted in the first clause necessarily leads to contradiction in the same way that intransitive statements of the form shown in (11) does.

- (11) a. # Ali mati, tapi dia tidak mati.
 Ali die but he NEG die
 ‘Ali died, but he didn’t die.’
 b. # Pintu tertutup, tapi tidak tertutup.
 door close but NEG close
 ‘The door closed, but it didn’t close.’

To summarize, I have proposed that causation types are fundamentally different depending on the agentivity of the subject argument in causative accomplishment verbs. The agentive causation type is tokenized by two sub-event tokens – agent’s action and theme’s CoS – whereas the non-agentive causation is tokenized by only the latter sub-event token. I have shown how this type contrast correctly accounts for the agentivity-driven distribution of non-culminating CoS construals associated with this semantic class. In the next section, I will provide two independent arguments in favor of my proposed analysis.

4. Independent Evidence for the Causal Pluralism Hypothesis

There are two crucial ingredients of the analysis put forth in the previous section for the non-culminating CoS interpretation of causative accomplishment verbs in Indonesian. One is that the structured meanings of this lexical semantic class may contain two tokens which may map to the agent’s action and the theme’s CoS components at the conceptual interface. The other is that the agentive causation type has both sub-event tokens but the non-agentive causation type has only one sub-event token. I will provide evidence in favor of these crucial assumptions of my analysis in the rest of this section.

Tagalog has a well-known morphological distinction between the neutral (N) form and the ability/involuntary action (AIA) form. Dell (1983/1984) points out that the choice between these forms plays a crucial role in indicating the occurrence of the agent’s action and the theme’s intended result change lexically denoted by the main verb. Dell (1983/1984) thus writes:

- (12) “The lexical meaning of the root *tulak* (‘to push’ – YS) involves two distinct ideas. One has to do with the agent’s engaging in a certain action or “Manuever” (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)

Examples in (13, 14) illustrate Dell’s observation.

- (13) ITINULAK ni Ben ang bato.
 N-PERF-push GEN Ben NOM rock
 ‘Ben pushed the rock.’ (+**Manner**, ØResult) (Tagalog: Dell 1983/1984:179)
- (14) NAITULAK ni Ben ang bato.
 A-PERF-push GEN Ben NOM rock
 ‘Ben pushed the rock.’ (+**Manner**, +**Result**)
 (a) ‘Ben managed to move the rock by pushing it.’ (intentional)
 (b) ‘Ben accidentally moved the rock by pushing it.’ (non-intentional)
 (Tagalog: Dell 1983/1984:180)

In (13), the sentence-initial verb is marked with the N form. Dell observes that in this example,

Ben must have participated in the action of pushing the rock, but it does not have to be the case that the rock underwent any displacement; the rock may well be in exactly the same position it was before Ben's pushing action. In (14), on the other hand, the verb is marked with the AIA form. In this case, the rock Ben pushed must have been dislocated from its original position to some other position as the result of Ben's action, whether Ben's actions were intentional or not. Let us now see what happens when the verbs in (13, 14) is negated. The examples in (15, 16) are the cases in point.

(15) *hindi ITINULAK ni Ben ang bato.*
 NEG N-PERF-push GEN Ben NOM rock
 'Ben did not push the rock.' (–**Manner**, ØResult) (Tagalog: Dell 1983/1984:181)

(16) *hindi NAITULAK ni Ben ang bato.*
 NEG A-PERF-push GEN Ben NOM rock
 'Ben did not push the rock.' (ØManner, –**Result**) (Tagalog: Dell 1983/1984:181)

In (15), the negative marker *hindi* 'not' removes the specification of the Manuever or the agent's action which was manifested in (13). In (16), by contrast, the same marker removes the positive specification of the Result or the theme's CoS construal from its affirmative variant in (14). Dell's observation above, therefore, indicates that Tagalog has a fine-tuned morphological means of the structured meanings of accomplishment verbs into the agent's action component (what he calls the Maneuver) and the theme's CoS component (what he calls the Result). I take the existence of this type of language to provide independent support for the two-component analysis of the agentive causation type in other languages such as Indonesian.

Recall that a crucial analytical assumption of my proposed analysis for the non-culminating, zero CoS construal with causative verbs in Indonesian was that the number of sub-event tokens was different depending on the agentivity of the subject argument, as stated in Table 1. Below, I present two pieces of evidence for this assumption, drawing on Martin's (2015, 2019) tests developed on the basis of French/English data.

One piece of evidence for this assumption is concerned with the different pattern of interaction of the two causation types in construction with time-frame adverbials such as *in one hour*. Time-frame adverbials are known to measure the time span between the onset and the result state of a complete eventuality denoted by a verb. Keeping this point in mind, consider the examples in (17) and (18), which instantiate the agentive and non-agentive causation types, respectively.

(17) Pak Iwan mebunuh ayam dalam waktu sepuluh menit, tapi sebenarnya
 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.'

- (18) Gempa bumi mebunuh ayam dalam waktu sepuluh menit, # tapi sebenarnya
 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.’

The contrast between (17) and (18) is exactly what my proposed analysis predicts. The example in (17) can be truthfully uttered in the following context. At 8:00am on July 12, 2019, Iwan’s sequence of preparatory actions targeting the chicken started; for example, at 8:00am, Iwan put his decision to kill the chicken into action, brought some necessary instruments, stood up, and approached the chicken he was attempting to target on this particular morning for his breakfast. He finally put it to death at 8:10am. In other words, Iwan took a total of ten minutes to kill the chicken. On the other hand, the chicken itself took one minute to die; for example, it was alive at 8:09am but died a minute later at 8:10am as the result of Iwan’s killing actions. The reason the two apparently conflicting time-frame adverbials may occur in (17) is clear. By hypothesis, (17), an example of the agentive causation type, introduces two sub-event tokens – the agent’s action and the theme’s CoS. Consequently, the time span of the latter sub-event token may well be shorter than the time span of the whole causing event which also contains the former sub-event token. The anomaly of (18) shows that this reading is inaccessible to the non-agentive causation type. Again, this pattern receives a straightforward account. The non-agentive causation type is tokenized only by the theme’s CoS. Hence, (18) is interpreted such that the entire causing event would be completed in both ten minutes and one minute, giving rise to contradiction. Recall that the semantic interpretation of the non-agentive causation type is identical for all intends and purposes to that of the intransitive/inchoative construction type because both types introduce only one sub-event token related to the theme’s CoS component. Example (19) indeed confirms that the intransitive construction type also yields semantic anomaly just as (18) does.

- (19) Ayam mati dalam waktu sepuluh menit, # tapi sebenarnya ayam-nya
 chicken dead in time ten minute but actually chicken-the
 mati hanya dalam waktu satu menit.
 dead only in time one minute
 ‘The chicken died in ten minutes, but actually the chicken died only in one minute.’

The other piece of evidence in favor of the view that the agentive causation type has the agent-related token and the theme’s CoS token, unlike the non-agentive causation type, comes from different interpretational requirements on the two causative types when embedded under aspectual heads such as *mulai* ‘to start’. When a causative accomplishment VP is embedded under this aspectual verb, such a structure requires the CoS of the theme to start with a causer subject, but not necessarily with an agentive subject. Examples (20, 21) illustrate this point.

- (20) Pak Iwan mulai membakar ikan. (agentive causation)
 Mr Iwan start burning fish
 ‘Mr. Iwan started burning the fish.’

- (21) Api mulai membakar ikan. (non-agentive causation)
 fire start burn fish
 ‘The fire started burning the fish.’

For (20) to be truthfully uttered, some preparatory actions on the part of Iwan must have started. Crucially, however, no change developing toward the intended result has to happen yet at the utterance time; the fish may remain exactly in the same shape/color as before. This construal is possible in (20) because this example involves two sub-event tokens – the agent’s action and the theme’s CoS – as instantiating the agentive causation type. The aspectual verb *mulai* ‘to begin’, then, modifies the onset of the agent’s action alone (i.e., a series of actions that the subject referent may take to engage in the fish-burning event). The example in (21), by contrast, entails that the fish in question has already started undergoing some change(s) ultimately leading to the intended result at the utterance time: the fish, for example, already turned to change its surface color to brown in parts. This entailment is manifested in (21) because this example, as an instance of the non-agentive causation type, is tokenized only through the theme’s CoS component. Accordingly, the verb *mulai* ‘to start’ can only modify the onset of the theme’s CoS which would lead to the expected outcome (i.e., the burned state of the fish).

5. Conclusions

The proposed analysis has two important implications, each worthy of further in-depth future investigations and verifications. Firstly, the data reported here suggest that Indonesian behaves on a par with many other genetically unrelated languages, including Malagasy (Travis 2000, 2005), Tagalog (Dell 1983-1984), Salish (Bar-el et al. 2005; Jacobs 2011, Kiyota 2008), Chinese (Tai 1984), Japanese (Tsujimura 2003), Korean (Lee 2015), English (Oerhle 1976) and many other languages documented in Demirdache and Martin (2015) and Martin (2019), which are all reported to exhibit the non-culminating, zero CoS readings of causative verbs only when their subject is agentive. In other words, the results attained present new evidence from Indonesian for the Agent Control Hypothesis (Demirdache and Martin 2015) that the relevant reading is possible with causative verbs when the subject is an agent, but not a causer. Secondly, as noted by other lexical semantic works including Tsujimura (2003), it has been the perennial issue in the literature whether the notion of agentivity is linguistically represented. The results of this study show that the answer is resounding yes; agentivity has to be represented at some level of linguistic representation, either in the Lexical Conceptual Structure (Levin and Rappaport-Hovav 1995; Pustejovsky 1995) or in syntactic structures (Pylkkänen 2002; Harley 2009, 2013), because it has clear repercussions on the result entailment of causative accomplishment verbs.

Selected references

- Bar-El, Leora, Henry Davis and Lisa Matthewson. 2005. On non-culminating accomplishments. In Leah Bateman and Cherlon Ussery (eds.), *Proceedings of the 35th Annual Meeting of the North East Linguistic Society (NELS 35)* 1:87–102. Amherst, MA: GLSA, University of Massachusetts, Amherst.
- Alexiadou, Artemis, Elana Anagnostopoulou, and Florian Schäfer. 2006. The properties of

- anticausatives crosslinguistically. In Mara Frascareli (ed.), *Phases of interpretation*, 187–212. Berlin: Mouton de Gruyter.
- Dell, François. 1983-1984. An aspectual distinction in Tagalog. *Oceanic Linguistics* 22/23:175–206.
- Hamida, Demirdache, and Fabienne Martin. 2015. Agent control over non-culminating events. In Elisa Barrajón López, José Luis Cifuentes Honrubia and Susana Rodríguez Rosique (eds.), *Verb classes and aspect*, 185–217. Amsterdam/Philadelphia: John Benjamins.
- Harley, Heidi. 2009. The morphology of nominalizations and the syntax of vP. In Anastasia Ginnakidou and Monika Rathert (eds.), *Quantification, definiteness and nominalization*, 321–343. Oxford: Oxford University Press.
- Harley, Heidi. 2013. External arguments and the mirror principle: On the distinctness of voice and v. *Lingua* 125:34–57.
- Jacobs, Peter. 2011. *Control in skuwɔwɔmesh*. Doctoral dissertation, University of British Columbia.
- Kageyama, Taro. 1996. *Doosi imiron: Gengo to ninti no setten* [Verb semantics: At the interface of language and cognition]. Tokyo: Kurosio Publishers.
- Kageyama, Taro. 2002. *Kezime no nai Nihongo* [Japanese, a language without distinctions]. Tokyo: Iwanami Publishers.
- Kato, Atsuhiko. 2014. Event cancellation in Burmese. Paper presented at the 24th meeting of the Southeast Asian Linguistics Society. Yangon University, Myanmar.
- Kiyota, Masaru. 2008. *Situation aspect and viewpoint aspect: From Salish to Japanese*. Doctoral dissertation, University of British Columbia.
- Lee, Juwon. 2015. An intention-based account of accomplishments in Korean. Doctoral dissertation, University of Texas, Austin.
- Lee, Juwon. 2016. Intentionality and conative constructions in English. *Studies in Linguistics* 41:327–356.
- Lee, Juwon. 2018. The complementarity of intentionality and affectedness: Evidence from English verbs of killing. *Language and Information* 22:1–22.
- Martin, Fabienne. 2015. Explaining the link between agentivity and non-culminating causation. In Sarah D'Antonio, Mary Moroney and Carol Rose Little (eds.), *Proceedings of the 25th Semantics and Linguistic Theory Conference*, 246–266. Linguistic Society of America and Cornell Linguistics Circle.
- Martin, Fabienne. 2019. Aspectual differences between agentive vs. non-agentive uses of causative predicates. Ms., Humboldt-Universität zu Berlin.
- Martin, Fabienne, and Florian Schäfer. 2015. Sublexical modality in defeasible causative verbs. In Ana Arregui, María Luisa Rivero and Andrés Salanova (eds.), *Modality across syntactic categories*, 87–108. Oxford: Oxford University Press.
- Pylkkänen, Liina. 2002. *Introducing arguments*. Doctoral dissertation, MIT.
- Pustejovsky, James. 1995. *The generative lexicon*. Cambridge, MA: MIT Press.
- Sato, Yosuke. 2019. How can one kill someone twice in Indonesian? Ms., Seisen University.
- Tai, James H.-Y. 1984. Verbs and times in Chinese: Vendler's four categories. In David Testen, Veena Mishra and Joseph Drogo (eds.), *Papers from the parasession on lexical semantics*, 289–296. Chicago, IL: Chicago Linguistic Society.
- Tsujimura, Natsuko. 2003. Event cancellation and telicity. In William McClure (ed.), *Japanese/Korean Linguistics* 12: 388–399. Stanford, CA: CSLI Publications.