

Some remarks on agent exclusivity in nominalization

Yusuke Imanishi

Kwansei Gakuin University
yimanishi@kwansei.ac.jp

KLS 47
June 12th, 2022

1. Introduction

2. Previous approaches

Deficiency in event structure

Selectional restriction

Deficiency in syntactic structure

3. Agent exclusivity

4. Total absence of EAs

5. Conclusion

Agent exclusivity in nominalizations

- ▶ In transitive nominalizations of English, external arguments (EAs) are exclusively agentive: **agent exclusivity (AE)**
- ▶ Facilitators or indirect causers are disallowed (Lakoff, 1970; Grimshaw, 1990; Pesetsky, 1995; Marantz, 1997; Harley and Noyer, 2000, among others)

(1) The Allies' / #The Cold War's separation of E. and W. Germany

- ▶ The corresponding verbs allow these external arguments

(2) The Allies / The Cold War separated E. and W. Germany.

(based on Harley and Noyer 2000 and Ahdout 2020)

- ▶ Other languages displaying the AE effect include Hebrew and German

Hebrew

- (3) a. haʃmadat ha-jevulim al-jedej
 the.destruction.CAUS.ACT(of) the-crops.GEN by
 ha-xakl'aim
 the-farmers
 'the destruction of the crops by the farmers'
- b. ?haʃmadat ha-jevulim al-jedej
 the.destruction.CAUS.ACT(of) the-crops.GEN by
 ha-ʃarav
 the-heat
 'the destruction of the crops by the heat'

(adapted from Ahdout 2020)



Total absence of EAs in nominalizations

- ▶ Nominalizations of Kaqchikel exclude the EA and only contain the internal argument (IA): the only argument inside a derived nominal must be interpreted as the IA, but not the EA: **total absence of EAs (TAE)**

- (4) ru-k'at-ik ri a Juan x-ø-xib'i-n.
A3s-burn-NOML DET CL Juan PRFV-B3s-scary-AP
'Juan's burning was scary.'
= Juan was burned.
≠ Juan burned something.

(Imanishi, 2014, 2019, 2020)

Total absence of EAs in nominalizations

- ▶ Unergative nominalizations, which only contain an EA, are disallowed in Kaqchikel

- (5) a. *nu-b'iyin-ik
A1SG-walk-NMLZ
'(intended) my walking'
- b. ?*ru-tzopin-ik ri xta Maria
A3SG-jump-NMLZ DET CL Maria
'(intended) Maria's jumping

(Imanishi, 2019, 2020)

- ▶ The type of nominalizations discussed in this talk are so-called *complex event nominals* (Grimshaw, 1990) or *argument structure nominals* (ASNs) (Borer, 2013), in opposition to *result nominals* (RNs)

ASNs

- (6) John's examination of the patients took a long time.

RNs

- (7) The examination was long/on the table.

(Grimshaw, 1990)

Questions to address:

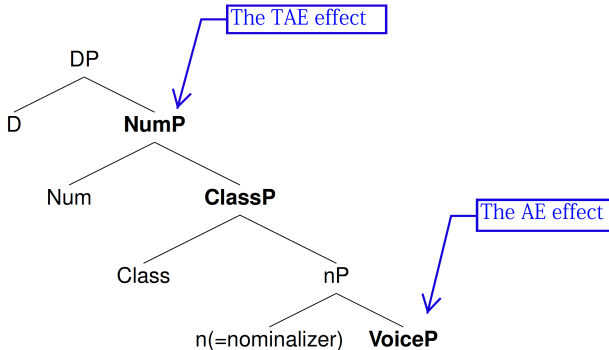
- ▶ Are the AE and TAE effects related to each other?
- ▶ What syntactic/semantic factors correlate with the AE and TAE effects?
- ▶ Can we state any universal about ASNs, based on the comparative syntax of nominalizations: Germanic, Romance, Mayan, Semitic?

Proposals at a glance

- ▶ The properties and syntax of ASNs vary both across and within languages
- ▶ ‘Verby’ nominalizations show the AE effect, whereas ‘nouny’ ones show the TAE effect
- ▶ The aspectual properties and plurality of ASNs interact with the presence/absence of the TAE effect
- ▶ The TAE effect can only be found with telic ASNs

The proposed universal about ASNs

ASNs induce the TAE effect iff they can be pluralized.



1. Introduction

2. Previous approaches

Deficiency in event structure

Selectional restriction

Deficiency in syntactic structure

3. Agent exclusivity

4. Total absence of EAs

5. Conclusion

Deficiency in event structure

- ▶ Sichel (2010)
 - English derived nominals (= *-(a)tion*) such as *destruction* are **deficient** in terms of event structure
 - They are restricted to single, simple events or *co-temporal* complex events (Levin and Rappaport-Hovav, 1999), unlike accomplishment verbs whose event structure consists of two sub-events (i.e., activity and resulting state) in the sense of Grimshaw (1990) among others
 - The nominalization of accomplishment verbs and lexical causatives calls for a participant in *both* sub-events (see Levin and Rappaport-Hovav 1999 for details)

- **The derived condition:** The EA of transitive nominalizations must be a **direct participant**, which directly brings about the event
 - A natural force like *hurricane* can only be a causing event for *justify* as in (8-b), whereas it can be interpreted as the force which brings about the results associated with *devastate* (= a direct participant), as seen in (8-a)
- (8) a. The hurricane's devastation of ten coastal communities in Nicaragua
- b. #The approaching hurricane's justification of the abrupt evacuation of the inhabitants

(Sichel, 2010)

- In addition, as can be clearly seen in the Kaqchikel nominalization, the account based on the requirement of event structure cannot capture the TAE effect, either

(10) ru-k'at-ik ri a Juan x-ø-xib'i-n.
A3s-burn-NOML DET CL Juan PRFV-B3s-scary-AP
'Juan's burning was scary.'
= Juan was burned.
≠ Juan burned something.

(Imanishi, 2014, 2019, 2020)

A selectional restriction

- ▶ Alexiadou et al. (2013)
- Contra Sichel (2010), it is shown that *ing-of* nominals (or nominal gerunds) rather than derived nominals show the AE effect

- (11)
- *the justifying of the evacuation by the approaching hurricane
 - ?/?the justification of the evacuation by the approaching hurricane
 - the justification/justifying of the evacuation by the mayor

Alexiadou et al. (2013)

- *ing-of* nominals display an anti-telicity effect (= aspectual shift), as noted by Alexiadou (2001) and Borer (2005): *ing-of* nominals are atelic, whereas derived nominals are telic

- (12)
- Pat's forming of a complex event for three minutes/*in two minutes/??twice
 - Pat's formation of a complex event twice/ in 2 minutes

Borer (2005)

- Given the anti-telicity effect of *ing-of* nominals, the nominalizer *-ing* tends to **select atelic events** (see Alexiadou et al. 2010a for somewhat different observations)

- While Alexiadou et al.'s (2013) findings about the AE effect contradict Sichel's, they adopt Sichel's intuition about the relationship between indirect causers and event complexity
- Developing the analysis of inanimate subjects by Folli and Harley (2008), Alexiadou et al. suggest that indirect causers require the **bi-eventive** structure syntactically encoded as follows:

- (13) a. [ProcessP/vP] *mono-eventive structure*
b. [ProcessP/vP [ResultP]] *bi-eventive structure*

- Since *ing-of* nominals are atelic and thus lack a result state, a stronger AE effect arises

- The nominalizations of other languages pose a challenge for the selectional account
- Aspectual shift cannot be found in Hebrew and Kaqchikel
- Hebrew: Nominalizations can be formed from achievement verbs (=telic), but display the AE effect

(14) hagaa' pit'omi-t jelo l-a-mesiba
arrival.CAUS.ACT sudden-F.SG his to-the-party
tahiye bilti-svira
be.FUT.F.3SG NEG-probable
'His sudden arrival at the event is improbable'

(adapted from Ahdout 2020)

- Kaqchikel: The *in*- phrase is compatible with nominalizations, suggesting that they are telic

(15) ri ru-choy-ik ri che' pa wo'o' ch'uti ramaj
DET A3s-cut-NOML DET tree P_{REP} five minute
k'ayew
difficult
'Cutting the tree(s) in five minutes is difficult.'

(Imanishi, 2014, 2019)

- Aspectual shift is not the source of either the AE or TAE effects

Deficiency in syntactic structure: Lack of Voice

- ▶ Harley (2009) mentions that the possibility of a causer EA in nominalizations correlates with the size of a nominalized structure
- ▶ In particular, it is suggested that a **VoiceP layer**, which introduces an EA and assigns accusative case, must be present in order for a causer DP to appear in nominalizations

- ▶ However, a subset of nominalizations in Hebrew (= *OBJ-ACC nominalizations*) only marginally allow causers, although they arguably contain Voice: they assign accusative case to the object

- (16) a. harisat
the.destruction.SMPL.ACT(of)
ha-'irija et ha-mivne
the-municipality.GEN ACC the-building
'the destruction of the building by the municipality'
- b. ?harisat ha-ʃemeʃ et
the.desruction.SMPL.ACT(of) the-sun.GEN ACC
ha-rehitim
the-furniture
'the destruction of the furniture by the sun'

(adapted from Ahdout 2020) 

- ▶ Some nominalized forms of Kaqchikel overtly show voice morphemes such as passive and antipassive suffixes: they are likely to contain Voice

- ▶ Nevertheless, nominalizations exclude the EA

Passive

(17) röj y-oj-ajin che ki-q'ete-x-ik ri ak'wal-a'.
we IMPF-B1P-PROG PREP A3P-hug-PAS-NOML DET child-PL
'We are hugging the children.'

(Imanishi, 2014, 2019)

Antipassive

- (18) x-ø-u-chäp q'et-e-n-ik r-ichin ri ak'wal
PRFV-B3s-A3s-begin hug-BV-AP-NOML A3s-RN DET child
'He began to hug the child.'

(García Matzar and Rodríguez Guaján, 1997, :457)

Recap

The deficiency in size of a nominalized structure or its event structure is irrelevant to the AE and TAE effects

1. Introduction

2. Previous approaches

Deficiency in event structure

Selectional restriction

Deficiency in syntactic structure

3. Agent exclusivity

4. Total absence of EAs

5. Conclusion

Verb-like nominalizations and AE

- ▶ The comparison between English and other languages reveals that **'more' verb-like nominalizations with Voice** display a stronger AE effect (Alexiadou et al., 2013)
- ▶ This contrasts sharply with works like Sichel (2010) and Harley (2009), which suggest that 'less' verb-like nominalizations show the AE effect

English

- ▶ Alexiadou et al. (2013): *ing-of* nominals are more verbal than derived nominals, based on the (un)availability of a **reflexive interpretation**
 - ▶ a self-action interpretation = **VoiceP** (Kratzer, 1996)
 - Th = Ag: The children registered themselves
 - Th \neq Ag: The children were registered by someone
- (19) The children were being registered (*Th = Ag/Th \neq Ag)
- (20) The report mentioned the painfully slow registering of the children. (*Th = Ag/Th \neq Ag)
- (21) The report mentioned the painfully slow registration of the children. (Th = Ag/Th \neq Ag)

German

- ▶ *-ung* nominals do not show the AE effect, while nominal infinitives do
-ung nominals

(22) Die Bestätigung der ursprünglichen Diagnose
the confirmation the.GEN initial diagnosis
durch die Ergebnisse des Tests
through the results the.GEN test.GEN
'the confirmation of the initial diagnosis by the results of
the test'

(Alexiadou et al., 2013)

nominal infinitives

- (23) Um ein Zerstoren der Stadt durch die
in.order.to a destruction the.GEN city through the
Soldaten/?*den Sturm zu verhindern
soldiers/the storm to prevent
'in order to prevent a destruction of the city by the
soldiers/the storm'

(Alexiadou et al., 2013)

- ▶ The diagnostic test of a reflexive action interpretation suggests that nominal infinitives contain Voice , whereas *-ung* nominals do not

- (24) a. die Anmeldung der Gäste
the registration.UNG the.GEN guests
'the registration of the guests' (Ag = Th/Ag ≠ Th)
- b. das Anmelden der Gäste
the register.INF the.GEN guests
'the registering of the guests' (Ag = Th/*Ag ≠ Th)

(Alexiadou et al., 2013)

- ▶ Adverbial modification is possible with nominal infinitives, while it is not with *-ung* nominals
- ▶ The possibility of adverbial phrases points to the existence of a VoiceP and/or AspectP (Cinque, 1999; Alexiadou, 2001) within a nominal

(25) das dauernde laut Singen der Marseillaise
the constant loudly sing.INF the.GEN Marseillaise
'the constant singing of Marseillaise loudly'

Alexiadou (2020)

(26) *die Spaltung des Holzes in zwei Tagen/mit der Axt
the split.UNG the wood in two days/with the axe
'the splitting of the wood in two days/with the axe'

Bauke and Roeper (2011)

Hebrew

- ▶ Hebrew nominalizations, which show the AE effect, may occur with adverbial phrases
- see Borer (2013) and Ahdout (2020) for details about different types of nominals in Hebrew, particularly the Construct State vs. the Free State

(27) ha.hokaxa fel ha.te'ana (be-haclaxa) (be xodfayim)
the.proof of the.theorem (successfully) (in two
months)
'the proof of the theorem (successfully) (in two months)'

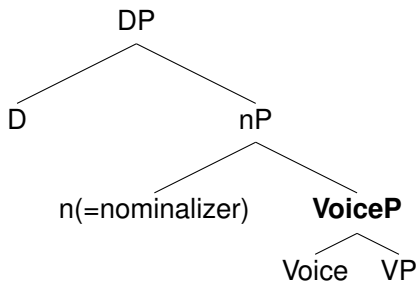
(slightly adapted from Borer 2013)

'Verbiness' and agent exclusivity

- ▶ The ASNs with more verbal properties display a strong AE effect
- ▶ What makes ASNs more verbal is the presence of VoiceP inside a nominalized structure
- ▶ Following one of the syntactic approaches to ASNs in that nominal functional projections dominate verbal projections containing arguments (Abney, 1987; Borsley and Kornfilt, 2000; Alexiadou, 2001; Fu et al., 2001; Coon, 2010, 2013; Kornfilt and Whitman, 2011, among others), the structure of nominalizations displaying the AE effect would look like the one shown in (28)

The structure of AE-inducing nominalizations

(28)



Summary: the verbiness of ASNs and AE

	VoiceP	AE
English <i>ing-of</i> nominals	✓	✓
English derived nominal	✗	✗
German nominal infinitives	✓	✓
German <i>-ung</i> nominals	✗	✗
Hebrew	✓	✓
Kaqchikel	✓	N/A

1. Introduction

2. Previous approaches

Deficiency in event structure

Selectional restriction

Deficiency in syntactic structure

3. Agent exclusivity

4. Total absence of EAs

5. Conclusion

Noun-like nominalizations and TAE

- ▶ Kaqchikel nominalizations also allow adverbial modification and **exclude EAs entirely**, a *stronger* effect than AE

(29) ru-pax-ik ri läq aninäq k'ayew
A3s-break-NOML DET plate quickly difficult
'Breaking the plate quickly is difficult.'

(30) ri ru-choy-ik ri che' pa wo'o' ch'uti ramaj
DET A3s-cut-NOML DET tree PREP five minute
k'ayew
difficult
'Cutting the tree(s) in five minutes is difficult.'

(Imanishi, 2014, 2019, 2020)

Plurality of ASNs

- ▶ What distinguishes TAE-inducing nominalizations from others, then?
- ▶ A closer look at the targeted languages shows that Kaqchikel nominalizations may be **pluralized**, while those nominalizations without TAE cannot
- ▶ Recent crosslinguistic research on nominalizations has cast doubt on Grimshaw's (1990) observation that ASNs cannot be pluralized, while result nominals can (Alexiadou et al. 2010a and the references cited therein)

- (31) a. The assignments were long.
b. *The assignments of the problems took a long time.

- ▶ As shown in (32), ASNs in Kaqchikel optionally trigger plural agreement

(32) **k'iy** ru-choy-**ik** che' y-at-**r/ki**-kosir-saj
lots.of A3SG-cut-NMLZ tree IPFV-B2SG-A3SG/A3PL-tire-CAUS
'Lots of cutting trees make you tired.'

Telicity/boundedness and TAE

- ▶ Based on Romanian nominalizations, Cornilescu (2001) proposes that **the IA is required for telic ASNs** since it contributes to measure out the event and identifies the culmination of the event in the sense of Tenny (1987) (see also Verkuyl 1996 and Borer 2005 among others)
- ▶ **The external argument cannot be included** in a structure where only one argument can appear: e.g., transitive and unergative nominalizations
- ▶ Therefore, the TAE effect can only be found with nominalizations whose aspectual property (or inner aspect) is **telic**

Universal about ASNs

- ▶ Developing the semantic literature on nominals (Mourelatos, 1978; Jackendoff, 1991, among others), Alexiadou et al. (2010a) suggest that **telic or bounded ASNs can be pluralized**, whereas atelic or unbounded ones cannot
- ▶ With these combined, we can state the following universal:

The proposed universal about ASNs

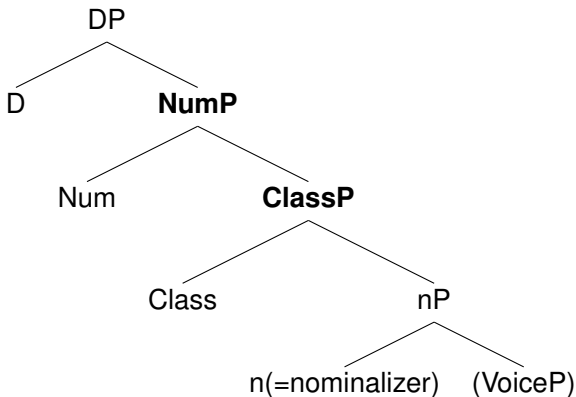
ASNs induce the TAE effect iff they can be pluralized.

'Nouniness' and TAE

- ▶ Picallo (2006)
 - **Num(ber)P** hosts a plural marker
 - The presence of a **Class(ifier)P**, which encodes gender features, is a precondition for Number
- ▶ Alexiadou et al. (2010a)
 - ASNs with telic (inner) aspect project $\text{ClassP}[+\text{count}]$ and NumP , whereas those with atelic (inner) aspect have $\text{ClassP}[-\text{count}]$
 - This can capture the similarity between mass/count nouns and atelic/telic ASNs (see also Borer 2013)
- ▶ The structure of TAE-inducing ASNs can be shown as in (33), building on Alexiadou et al. (2010a)

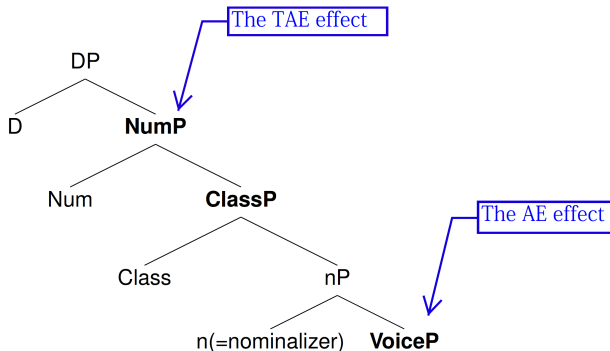
The structure of TAE-inducing ASNs

(33)



Gradual properties of nominalizations

- ▶ The properties of nominalizations across languages are *gradual* in the sense of Ross (1972) and Alexiadou (2001, 2020)



TAE in Kaqchikel

- ▶ The nominalizing suffix *-i'k* (= nominalizer) selects for a telic verb as its base
- ▶ Since it is telic, the nominalized verb requires the IA, excluding the EA
- ▶ These explain the lack of EAs in transitive nominalizations and the ungrammaticality of unergative (=atelic) nominalizations (see Imanishi 2014, 2019 for a different analysis building on Alexiadou 2001)

- (34) ru-k'at-ik ri a Juan x-ø-xib'i-n.
A3s-burn-NOML DET CL Juan PRFV-B3s-scary-AP
'Juan's burning was scary.'
= Juan was burned.
≠ Juan burned something.
- (35) a. *nu-b'iyin-ik
A1SG-walk-NMLZ
'(intended) my walking'
b. ?*ru-tzopin-ik ri xta Maria
A3SG-jump-NMLZ DET CL Maria
'(intended) Maria's jumping

(Imanishi, 2019, 2020)

- ▶ However, some unaccusative nominalizations whose base appears to be semelfactive (= atelic) can be found: *tzaq* ‘to fall’

(36) *ri ru-tzaq-ik ri a Juan üt.*
 DET A3SG-fall-NMLZ DET CL Juan good
 ‘Juan’s falling is good.’

(Imanishi, 2019, 2020)

- ▶ On closer inspection, the AS nominal *tzaq-ik* is probably derived from the transitive verb *tzäq*, which can mean ‘to knock over’ (= **telic**) (Brown et al., 2006)
- ▶ In Kaqchikel, lax vowels such as *ä* contained in some transitive verbs (*root transitives*) are turned into tense vowels such as *a* in passivization

- ▶ As I have shown elsewhere, transitive nominalizations in Kaqchikel involve passivization (Imanishi, 2014, 2015, 2019, 2020)
- ▶ ASNs such as the one in (36) should thus be interpreted as *the knocking over of Juan* (= **transitive and telic**)

Plurality and TAE in other languages

- ▶ Romanian
- two productive deverbal nominals (ASNs): infinitives (suffixed by *-re*) and supines (suffixed by *-Vt* and *-(V)s*) (Cornilescu, 2001)
- **Only infinitives** can be pluralized

(37) **demolă-r-i-le**/***demola-t-uri-le** frecvente ale
demolish-INF-PL-the/demolish-SUP-PL-the frequent.PL of
cartierelor vechi de către comuniști
quarters.GEN old by to communists
'the frequent demolitions of old quarters by the
communists'

(Alexiadou et al., 2010a)

- ▶ Cornilescu (2001)
 - Unergative nominalizations can only be formed by **supines**
 - **Infinitives**, which can be pluralized, exclude EAs, displaying the TAE effect, when they function as ASNs
 - Infinitives generally form **telic** nominalizations, while supines form **atelic** ones (see Alexiadou et al. 2010a for some complications)

- (38) *a dormi* ‘to sleep’
- **dormirea* lui (infinitive)
 - dormitul* lui (supine)

- (39) *a munci* ‘to work’
- **muncirea* (infinitive)
 - muncitul* (supine)

- ▶ German (Alexiadou et al., 2007, 2010a)
 - *-ung* nominals may select for either telic or atelic verbs as their base: the suffix simply *inherits* the aspectual properties of the base
 - With an atelic base, either an IA or an EA may be projected
 - The pluralization of such a nominal yields a result reading (= an RN)

(40) die Beobachtung des Verdächtigen_{Th} / der
the observe-Ung the-Gen suspect / the-Gen
Polizei_{Ag}
police

(Alexiadou et al., 2007)

- By contrast, *-ung* nominals formed with telic verbs **obligatorily project the IA**, excluding the EA
- These nominals can be **pluralized** and maintain an event reading (= ASNs)

- (41) a. die Tötung des Feindes / des
the kill-Ung the-Gen enemy-Gen / the-Gen
Verbrechers_{Th/*Ag}
criminal-Gen
- b. die gezielten Tötungen der politischen Führer
the targeted kill-Ung-Pl the-Gen political leaders
durch die Armee
via the army
'the targeted killings of political leaders via the army'

Summary: the nouniness of ASNs and TAE

	NumberP	TAE
English <i>ing-of</i> nominals	X/?	X
English derived nominal	X/?	X
German nominal infinitives	X	X
German <i>-ung</i> nominals	✓/X	✓/X
Kaqchikel	✓	✓
Romanian infinitives	✓	✓
Romanian supines	X	X

- ▶ see Alexiadou et al. (2010b) and Alexiadou (2020) for German nominal infinitives
- ▶ see Alexiadou et al. (2010a), Borer (2013) and Lieber (2016) for the varying, unstable status of plural ASNs in English
- ▶ Hebrew ASNs may pose a challenge for the proposed universal: pluralization appears to be possible with some ASNs, and they do not appear to show the TAE effect (let's discuss!)

1. Introduction

2. Previous approaches

Deficiency in event structure

Selectional restriction

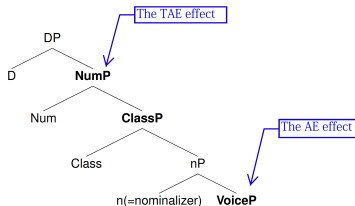
Deficiency in syntactic structure

3. Agent exclusivity

4. Total absence of EAs

5. Conclusion

- ▶ The AE effect is connected to the verb-like properties of ASNs, whereas the TAE effect is connected to the noun-like properties of ASNs
- ▶ The properties and syntax of ASNs vary both across and within languages, in accordance with Abney (1987) and Alexiadou (2001) among many others
- ▶ Our results support the view that the properties of nominalizations across languages are *gradual* (Ross, 1972; Alexiadou, 2001, 2020)



- ▶ The TAE effect is tightly connected to the aspectual properties (or inner aspect) and plurality of ASNs
- ▶ Given that the type of nominalization we looked at is sensitive to the inner properties of a base or syntactic environments on which it can operate, it is likely to be a **syntactic** process rather than a **lexical** one (Chomsky, 1970, 2020; Marantz, 1997; Newmeyer, 2009; Bruening, 2018, among others)

Acknowledgements

- ▶ I am very grateful to Ana López de Mateo and Hadas Kotek for their expertise on Kaqchikel and Hebrew, respectively. Any mistakes are my own responsibility.
- ▶ This research has been funded by the JSPS Grant-in-Aid for Young Scientists (No. 18K12388).

- Abney, Steven. 1987. The English noun phrase in its sentential aspect. Doctoral Dissertation, MIT, Cambridge, MA.
- Ahdout, Odelia. 2020. "agent exclusivity" effects in Hebrew nominalizations. In *Perspectives on causation*, 319–348. Springer.
- Alexiadou, Artemis. 2001. *Functional structure in nominals: Nominalization and ergativity*. Amsterdam/Philadelphia: John Benjamins.
- Alexiadou, Artemis. 2020. D vs. N nominalizations. In *Nominalization: 50 years on from Chomsky's Remarks*, ed. Artemis Alexiadou and Hagit Borer, 87–109. Oxford: Oxford University Press.
- Alexiadou, Artemis, Gianina Iordăchioaia, Mariángeles Cano, Fabienne Martin, and Florian Schäfer. 2013. The realization of external arguments in nominalizations. *The Journal of Comparative Germanic Linguistics* 16:73–95.
- Alexiadou, Artemis, Gianina Iordăchioaia, and Elena Soare. 2007. Plural marking in argument support-ing nominalizations. International Workshop on Nominal and Verbal Plurality.
- Alexiadou, Artemis, Gianina Iordăchioaia, and Elena Soare. 2010a. Number/aspect interactions in the syntax of nominalizations: A distributed morphology approach. *Journal of Linguistics* 46:537–574.

- Alexiadou, Artemis, Gianina Iordăchioaia, and Elena Soare. 2010b. Syntactic realization of plural in Romance and Germanic nominalizations. *Romance Linguistics 2008* 107–24.
- Bauke, Leah, and Tom Roeper. 2011. How phase-based interpretations dictate the typology of nominalizations. In *Grammar and discourse: From sentence types to lexical categories*, 289–320. De Gruyter Mouton.
- Borer, Hagit. 2005. *Structuring sense: The normal course of events*, volume 2. Oxford University Press.
- Borer, Hagit. 2013. *Structuring sense: Taking form*, volume 3. Oxford University Press.
- Borsley, Robert D., and Jaklin Kornfilt. 2000. Mixed extended projections. In *Syntax and semantics: The nature and function of syntactic categories*, ed. Robert D. Borsley, volume 32, 101–131. San Diego: Academic Press.
- Brown, McKenna R., Judith M. Maxwell, and Walter E. Little. 2006. *La ützwäch?*. Austin: University of Texas Press.
- Bruening, Benjamin T. 2018. Word formation is syntactic: Raising in nominalizations. *Glossa: a journal of general linguistics* 3.

- Chomsky, Noam. 1970. Remarks on nominalization. In *Readings in English transformational grammar*, ed. Roderick A. Jacobs and Peter S. Rosenbaum, 184–221. Waltham, MA: Ginn and Company.
- Chomsky, Noam. 2020. Remarks on nominalization: Background and motivation. In *Nominalization: 50 years on from Chomsky's Remarks*, ed. Artemis Alexiadou and Hagit Borer, 25–28. Oxford University Press.
- Cinque, Guglielmo. 1999. *Adverbs and functional heads: A cross-linguistic perspective*. Oxford University Press.
- Coon, Jessica. 2010. Complementation in Chol (Mayan): A theory of split ergativity. Doctoral Dissertation, MIT, Cambridge, MA.
- Coon, Jessica. 2013. *Aspects of split ergativity*. Oxford: Oxford University Press.
- Cornilescu, Alexandra. 2001. Romanian nominalizations: Case and aspectual structure. *Journal of linguistics* 37:467–501.
- Folli, Raffaella, and Heidi Harley. 2008. Teleology and animacy in external arguments. *Lingua* 118:190–202.
- Fu, Jingqi, Thomas Roeper, and Hagit Borer. 2001. The VP withing process nominals: Evidence from adverbs and the VP anaphor do-so. *Natural Language and Linguistic Theory* 19:549–582.

- García Matzar, Lolmay Pedro, and José Obispo Rodríguez Guaján. 1997. *Rukemik ri Kaqchikel Chi': Gramática Kaqchikel*. Guatemala City: Cholsamaj.
- Grimshaw, Jane. 1990. *Argument structure*. Cambridge, MA: MIT Press.
- Harley, Heidi. 2009. The morphology of nominalizations and the syntax of vP*. In *Quantification, definiteness and nominalization*, 320–342. Oxford University Press.
- Harley, Heidi, and Rolf Noyer. 2000. Formal versus encyclopedic properties of vocabulary: Evidence from nominalisations. In *The lexicon-encyclopedia interface*, 349–374. Brill.
- Imanishi, Yusuke. 2014. Default ergative. Doctoral Dissertation, MIT, Cambridge, MA.
- Imanishi, Yusuke. 2015. Default ergative: A view from Mayan. In *Proceedings of the 32nd West Coast Conference on Formal Linguistics (WCCFL)*. Somerville, MA: Cascadilla Press.
- Imanishi, Yusuke. 2019. Parameterizing split ergativity in Mayan. *Natural Language & Linguistic Theory*. doi.org/10.1007/s11049-018-09440-9.
- Imanishi, Yusuke. 2020. *Gengo-no nookakusei [Ergativity: Its puzzles and prospects]*. Tokyo: Hituzi.

- Jackendoff, Ray. 1991. Parts and boundaries. *Cognition* 41:9–45.
- Kornfilt, Jaklin, and John Whitman. 2011. Afterword: Nominalizations in syntactic theory. *Lingua* 121:1297–1313.
- Kratzer, Angelika. 1996. Severing the external argument from its verb. In *Phrase structure and the lexicon*, ed. Johan Rooryck and Laurie Zaring, 109–137. Dordrecht, The Netherlands: Kluwer Academic Publishers.
- Lakoff, George. 1970. *Irregularity in syntax*. New York: Holt, Rinehart and Winston.
- Levin, Beth, and Malka Rappaport-Hovav. 1999. Two structures for compositionally derived events. In *Semantics and linguistic theory*, volume 9, 199–223.
- Lieber, Rochelle. 2016. *English nouns: The ecology of nominalization*. Cambridge: Cambridge University Press.
- Marantz, Alec. 1997. No escape from syntax: Don't try morphological analysis in the privacy of your own lexicon. In *Proceedings of the 21st Annual Penn Linguistics Colloquium*, Pennsylvania Working Papers in Linguistics 4.2., 201–225. Philadelphia, PA: Penn Linguistics Club.

- Mourelatos, Alexander P.D. 1978. Events, processes, and states. *Linguistics and philosophy* 2:415–434.
- Newmeyer, Frederick J. 2009. Current challenges to the Lexicalist Hypothesis. *Time and again: Theoretical perspectives on formal linguistics* 91–117.
- Pesetsky, David. 1995. *Zero syntax*. Cambridge, MA: MIT Press.
- Picallo, M. Carme. 2006. Some notes on grammatical gender and I-pronouns. In *Proceedings of the workshop Specificity and the evolution/emergence of nominal determination systems in Romance*, 107–121.
- Ross, John R. 1972. The category squish: Endstation hauptwort. In *Chicago Linguistic Society*, volume 8, 316–328.
- Sichel, Ivy. 2010. Event structure constraints on nominalization. *The syntax of nominalizations across languages and frameworks* 159–198.
- Tenny, Carol Lee. 1987. Grammaticalizing aspect and affectedness. Doctoral Dissertation, Massachusetts Institute of Technology, Cambridge, MA.
- Verkuyl, Henk J. 1996. *A theory of aspectuality: The interaction between temporal and atemporal structure*. Cambridge University Press.