

DegP Movement Revisited: The View from Malay and Samoan

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1 Introduction

Broad Research Questions Behind This Talk:

1. How is the meaning of the comparative composed?
What is the analysis of the parameter marker and the standard marker?

- (1) The Comparative

Arnim is older than Sigrid.

[associate *Arnim*] is [parameter *old*] [parameter marker *-er*] [standard marker *than*] [standard *Sigrid*]
True if and only if Arnim's age exceeds Sigrid age.

2. How does this composition vary across languages?
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Preview:

1. A compositional puzzle from Malay (Austronesian, Malayo-Sumbawan; Malaysia) and Samoan (Austronesian, Oceanic; Independent State of Samoa, American Samoa) that invites us to re-think the analysis of the **standard marker** in those languages.
 2. Two different compositional strategies to establish the standard of the comparison: Direct composition versus **indirect manipulation** of a contextual standard through the presupposition introduced by locative framing adverbials.
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The Structure of This Talk:

Background

2 A Textbook Analysis of the English Comparative

Data

3 The Puzzle from Malay and Samoan

Analysis

4 Re-Thinking the Composition of Comparatives

Concluding Remarks

5 Towards a Typology

2 The English Comparative

Our starting point:

- (1) *Arnim is older than Sigrid.*
True if and only if $\exists d [\text{AGE}(\text{Arnim}) = \text{AGE}(\text{Sigrid}) + d]$

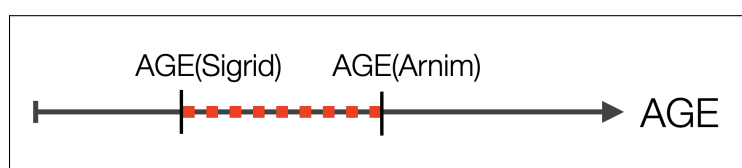


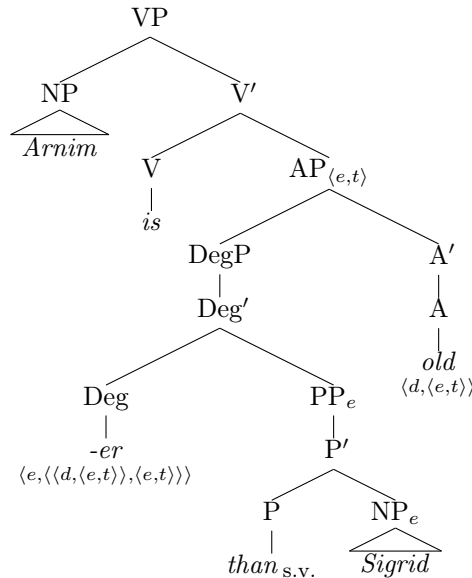
Figure 1: Comparison on the Age Scale

A textbook, phrasal analysis

(prominently, Heim 1985; Kennedy 1997; Bhatt & Takahashi 2011; Beck 2011):

(2) Logical Form

- Degree operators project a DegP, here realised in Spec,AP.
- The standard constituent is a phrasal complement of the degree operator.
- The standard marker is **semantically vacuous**.



(3) Lexical Entries

- Gradable predicates relate individuals to their degrees along some measurement scale.
 $\llbracket \text{old} \rrbracket = [\lambda d \in D_d. [\lambda x \in D_e. \text{AGE}(x) \geq d]]$
 $=_{\text{shorthand}} [\lambda d \in D_d. [\lambda x \in D_e. x \text{ is } d\text{-old}]]$
- The comparative operator encodes a comparison between two individuals on the scale provided by the gradable adjective.
 $\llbracket -er \rrbracket = [\lambda y \in D_e. [\lambda P \in D_{\langle d, \langle e, t \rangle \rangle}. [\lambda x \in D_e. \text{MAX}(\lambda d. P(d)(x) = 1) > \text{MAX}(\lambda d'. P(d')(y) = 1)]]]$
- For any set of degrees $D \in D_{\langle d, t \rangle}$, $\llbracket \text{MAX} \rrbracket(D) = \iota d [\forall d' \in D : d' \leq d]$.

(4) Composition

- $\llbracket \text{DegP} \rrbracket = [\lambda P \in D_{\langle d, \langle e, t \rangle \rangle}. [\lambda x \in D_e. \text{MAX}(\lambda d. P(d)(x) = 1) > \text{MAX}(\lambda d'. P(d')(\text{Sigrid}) = 1)]]$
- $\llbracket \text{AP} \rrbracket = [\lambda x \in D_e. \text{MAX}(\lambda d. \text{AGE}(x) \geq d) > \text{MAX}(\lambda d'. \text{AGE}(\text{Sigrid}) \geq d')]$
- $\llbracket \text{VP} \rrbracket = 1$ iff $\text{MAX}(\lambda d. \text{AGE}(\text{Arnim}) \geq d) > \text{MAX}(\lambda d'. \text{AGE}(\text{Sigrid}) \geq d')$
iff $\text{AGE}(\text{Arnim}) > \text{AGE}(\text{Sigrid})$ iff $\exists d [\text{AGE}(\text{Arnim}) = \text{AGE}(\text{Sigrid}) + d]$

– Note that this operator is **scopally mobile**, allowing for “**semantic ellipsis**” (Heim 2001), that is, for syntactically derived degree predicates to underlay the comparison (Heim 1985; Beck, Hohaus & Tiemann 2012; Berezovskaya & Hohaus 2015, inter alia).

(5) The External Reading of Attributive Comparatives:

Betty bought a better butter than Peter.

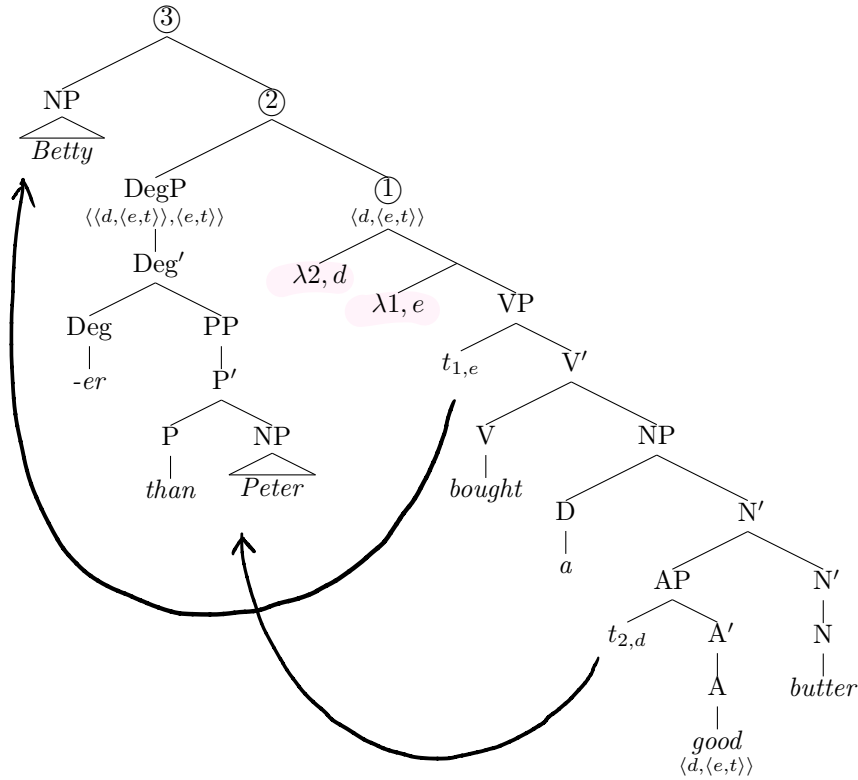
A comparison of Betty and Peter, along the quality of the butter they bought.

$[\lambda d \in D_d. [\lambda x \in D_e. x \text{ bought a } d\text{-good butter}]]$

(6) Logical Form

- **Parasitic movement** (Sauerland 1998)/ **tucking in** (Richards 1997) of the DegP between the moved subject, NP and its binder (Heim 1985; Beck, Hohaus & Tiemann 2012; Berezovskaya & Hohaus 2015; Hohaus 2015), under a view that ties lambda abstraction to movement (as in, e.g., Heim & Kratzer 1998).

- Setting aside any potential movement of the object NP (but see Hohaus & Zimmermann 2021).



(7) Composition

- $\llbracket ① \rrbracket^g = [\lambda d \in D_d. [\lambda x \in D_e. x \text{ bought a } d\text{-good butter}]]$
- $\llbracket ② \rrbracket^g = [\lambda x \in D_e. \text{MAX}(\lambda d. x \text{ bought a } d\text{-good butter}) > \text{MAX}(\lambda d'. \text{Peter bought a } d'\text{-good butter})]$
- $\llbracket ③ \rrbracket^g = 1 \text{ iff } \text{MAX}(\lambda d. \text{Betty bought a } d\text{-good butter}) > \text{MAX}(\lambda d'. \text{Peter bought a } d'\text{-good butter})$

Questions for the Analysis of Comparatives, in English and across languages:

- The lexical semantics of **gradable adjectives** (Beck et al. 2009):
Do they receive a degree-based analysis (going back to Russell 1905; Cresswell 1976) or a delineation-based analysis (notably, Klein 1980)?
- The syntactic analysis of the standard (Bresnan 1973, Hankamer 1973, and subsequent work):
Is the standard **phrasal** or underlyingly **clausal**?
Relatedly, what is the semantic type of the standard?
- **Schoenfinkelisation** (Beck, Hohaus & Tiemann 2012):
In which order does a phrasal comparative operator combine with its arguments?

- (8) $\llbracket -er \rrbracket = [\lambda P \in D_{\langle d, \langle e, t \rangle \rangle}. [\lambda x \in D_e. [\lambda y \in D_e. \text{MAX}(\lambda d. P(d)(x) = 1) > \text{MAX}(\lambda d'. P(d')(y) = 1)]]]$
(Kennedy 1997, p. 183, no. 123-c)

- **Variation:** Which operators are attested across languages (Merchant 2009, Berezovskaya & Hohaus 2015)?
- ⌚ Underlying assumption in much of the literature:
The standard constituent is an **argument** of the comparative operator (but see Alrenga, Kennedy & Merchant 2012; Schwarzschild 2014).

3 The Puzzle from Malay and Samoan

3.1 Language Profiles

– **Malay** is a member of the Austronesian language family, belonging to its Malayic branch. Malaysian and Indonesian are standard varieties of Malay and are the national languages of Malaysia and Indonesia respectively. A core grammar is shared by these varieties, although more significant differences can be found in their lexicon and phonology (Nomoto & Soh 2019). Additionally, Malay has the status of an official language in Brunei and Singapore, and different varieties of the language are also spoken in Southernmost Thailand. Malay is the first language of approximately 65% of the population of Malaysia, which means that it is the first language of around 20 million people in the country (Nomoto & Soh 2019). Standard word order is SVO. ES has been working on the language since 2019 (Suharwardy 2019).



Figure 2: The Malayic Languages (Adelaar 2018, p. 572, fig. 36.1)

– **Samoan** is a highly analytic verb-initial language from the Oceanic genus of the Austronesian language family. Approximately 175,000 speakers on the Samoan archipelago and an estimated 430,000 users worldwide (Simons & Fennig, eds. 2023). VH has been working on the language since 2009 (Hohaus 2012, 2015, 2017, 2018, 2019; Hohaus & Howell 2015; Howell et al. 2022).

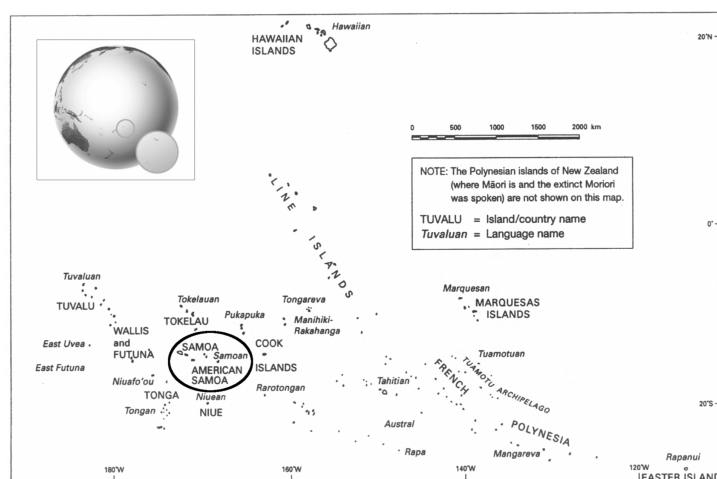


Figure 3: The Samoan Archipelago (Dragicevich & McLachlan 2009, Lynch 1998, p. 28)

– Unless otherwise indicated, the data here come from **elicitation** with native speakers relying on translation, acceptability judgment and targeted production tasks (see also Matthewson 2004, 2011 and Burton & Matthewson 2015).¹

¹The research presented here underwent ethical review and approval at the University of Manchester (review references #2022-15471-25986, 2021-11280-20326, 2019-6878-11144).

3.2 The Grammar of Comparison

- One morpho-syntactic strategy for the comparative in **Malay** (see Suharwardy 2019), with the parameter marker *lebih* and the standard marker *daripada* both obligatory.
- The preposition *daripada* is sometimes shorted to either *dari* ‘from’ or *pada* ‘in’ in less formal writing and speech. Both prepositions may occur outside of the comparative.

(9) The **morphological comparative** in Malay:

[associate (copula) LEBIH gradable predicate [preposition phrase DARIPADA standard]]

- (10) a. Comparing the heights of two women;
Mee Mee is around 170cm tall and Eve is around 160cm.
- b. *Mee Mee lebih tinggi [daripada Eve].*
NAME more tall from NAME
‘Mee Mee is taller than Eve.’
- c. A picture context with four different bags,
and their prices indicated below each one.
- d. *Beg hijau lebih mahal [daripada beg hitam].*
bag yellow more expensive from bag black
‘The yellow bag is more expensive than the black bag.’

- (11) *Mee Mee *(lebih) tinggi *(daripada) Eve.*
NAME more tall from NAME
Int. ‘Mee Mee is taller than Eve.’

- Only **phrasal** standards. Alternative strategies are used where a language like English would have clausal standards.

- (12) *Sharifah berlari lebih pantas daripada Amina (*berlari).*
Sharifah run more fast from Amina run
‘Sharifah runs faster than Amina (runs).’

- (13) **Eve membeli lebih banyak jaket daripada Leila menjual baju.*
Eve buy more many jacket from Leila sell top
Int. ‘Eve bought more jackets than Leila sold tops.’

- (14) *Saya mendapat keputusan yang lebih rendah daripada apa yang saya hendak.*
1SG earn result REL more low from what REL 1SG want
‘I earned a grade that is lower than what I wanted.’

- Evidence for an English-like, **degree-based**, rather than delineation-based analysis (e.g., Klein 1980) from differential measure phrases and comparison with a degree, following Stechow (1984) and Beck et al. (2009).

- (15) $\llbracket \text{tinggi ‘tall’ (Malay)} \rrbracket = \llbracket \text{tall (English)} \rrbracket =$
 $\llbracket \lambda d \in D_d. [\lambda x \in D_e. \text{HEIGHT}(x) \geq d] \rrbracket$

- (16) *Mee Mee adalah 10cm lebih tinggi daripada Eve.*
NAME COP 10cm more tall from NAME
‘Mee Mee is 10cm taller than Eve.’

- (17) *Saya lebih tinggi daripada 120cm.*
1SG more tall from 120cm
‘I’m taller than 120cm.’

- Two morpho-syntactic strategies for the comparative in **Samoan**, one syntactic, one morphological (see also Villalta 2007a,b; Beck et al. 2009; Hohaus 2012, 2015, 2018).

- (18) a. The **conjoined comparative** in Samoan:
 $\llbracket [\text{TAM gradable predicate}^+ \text{ associate}] [\text{gradable predicate}^- \text{ standard}] \rrbracket$

- b. The **directional comparative** in Samoan:
 [TAM gradable predicate ATU associate [preposition phrase NAI L \bar{O} standard]]
- (19) a. A set of Playmobil figures, consisting of mother, father, a boy and a girl.
 Mary is three years old. John is five years old.
- b. [*E matua Ioane*] [*ae laitiiti Malia*].
 TAM old NAME but young NAME
 ‘John is old but Mary is young.’
- c. *E matua atu Ioane nai l \bar{o} Malia.*
 TAM old more NAME from COMP NAME
 ‘John is older than Mary.’

– Standard marker may vary as to the preposition used, with *nai* ‘from’ as well as *i* ‘at’. The particle *l \bar{o}* is not attested outside of comparison constructions (see also Milner 1966). Only overtly **phrasal** standards, no evidence for ellipsis (Beck et al. 2009; Villalta 2007a,b).

- (20) a. **E mafanafana nei i lo sa faapea au.*
 TAM warm today at COMP TAM.PAST.PFV think I
 Int. ‘Today, it is warmer than I thought.’
- b. *E mafanafana atu nei i lo le mea na ou faapea e i ai.*
 TAM warm more today at COMP [the thing
 na ou faapea e i ai.
 [TAM.PAST.PFV I think PART at ANAPH]]
 Lit. ‘Today is warmer than the thing which I thought.’
 (Villalta 2007a, p. 4, no. 9)

– Evidence for a **degree-based** analysis from differential measure phrases and measure phrases as standard (see also Beck et al. 2009; Hohaus 2018; Hohaus 2015).

- (21) [*matua* ‘old’ (Samoan)] = [*old* (English)] =
 $[\lambda d \in D_d. [\lambda x \in D_e. \text{AGE}(x) \geq d]]$
- (22) *E umi atu Malia i le lua inisi nai l \bar{o} Falani.*
 TAM tall more NAME at the two inch from COMP NAME
 ‘Compared to Frank, Mary is two inches taller.’
- (23) *E umi atu Malia i le lima futu.*
 TAM tall more NAME at the five foot
 ‘Mary is taller than five feet.’

– Both languages good candidates for the **textbook phrasal analysis** of the comparative sketched above, adopting a no-variation null hypothesis (see also Matthewson 2001).

– While the DegP may undergo movement under this analysis, it is expected to obey **island constraints** (see also Kennedy 2002; Bacskai-Atkari 2014). This prediction is not borne out for Malay and Samoan.

3.3 Apparent Out-of-Island Readings

– **Malay** allows for out-of-island readings with relative clauses (see also Suharwardy 2019) and other complex noun phrases, which constitute islands for movement.

- (24) Relative clauses
- a. A family is moving house, the two daughters (Sharifah and Amina) need to pick their rooms. Amina doesn’t mind what her room is like, but Sharifah wants the biggest one possible.
- b. *Sharifah hendak bilik yang lebih besar daripada Amina.*
 NAME want room REL more big from NAME
 Lit. ‘Sharifah wants a room that is bigger than Amina.’
- c. $[\lambda d \in D_d. [\lambda x \in D_e. x \text{ wants a room which is } d\text{-big}]]$

- (25) a. Microsoft has decided to hire younger employees following a review of its workforce. Google completed a similar review recently, but age didn't stand out as a significant factor, so they aren't looking to hire particularly young employees.
 b. *MS merancang untuk mengupah perkerja yang lebih muda daripada Google.*
 NAME plan for employ employee REL more young from NAME
 Lit. 'Microsoft plans to hire employees that are younger than Google.'
 c. $[\lambda d \in D_d. [\lambda x \in D_e. x \text{ plans to hire employees which are } d\text{-old}]]$
- (26) a. Discussing the risk of becoming infected with Covid-19.
 b. *Lelaki memiliki risiko di-jangkit-i covid-19 yang lebih tinggi daripada perempuan.*
 man have risk PASS-infect-APPL Covid-19 REL more tall
 from woman
 Lit. 'Men have a risk of being infected by Covid-19 that is higher than women.'
 c. $[\lambda d \in D_d. [\lambda x \in D_e. x \text{ has a risk of catching Covid-19 which is } d\text{-high}]]$
- (27) a. A picture context depicting a flight taken by Mary to Rio de Janeiro that took 11hr 50min and a flight taken by John to Kuala Lumpur that took 13hr 05min.
 b. *John mengambil penerbangan yang lebih panjang daripada Mary.*
 NAME take flight REL more long from NAME
 Lit. 'John took a flight that is longer than Mary.'
 c. $[\lambda d \in D_d. [\lambda x \in D_e. x \text{ took a flight which was } d\text{-long}]]$
- (28) a. A family moved house. One of the daughters, Sharifah, picked the biggest room for herself because the other daughter, Amina, didn't care about the size.
 b. *Bilik yang Sharifah pilih lebih besar daripada Amina.*
 room REL NAME choose more big from NAME
 Lit. 'The room that Sharifah chose is bigger than Amina.'
 c. $[\lambda d \in D_d. [\lambda x \in D_e. \text{SIZE}(\text{the room which } x \text{ chose}) \geq d]]$

– Relative clauses are indeed island for overt movement in Malay (see also Cole & Hermon 1998), that is, overt extraction is not possible.

- (29) a. A comic strip with two pictures, one introducing Mary, who is in love with Peter. The other picture shows John talking to Peter.
 b. *John sedang bercakap dengan budak lelaki yang Mary cinta.*
 John PROG talk with child man REL Mary love
 'John is talking to the boy that Mary loves.'
 c. **Siapa-kah yang John sedang bercakap dengan budak lelaki yang ____ cinta?*
 who-Q REL John PROG talk with child man REL love
 Lit. 'Who is John talking with the boy that ____ loves?'
-

(30) Complex Noun Phrases

- a. The net worth of two very rich men:
 Elon Musk \$262BIL & Jeff Bezos \$165BIL.
- b. *Kekayaan Elon Musk lebih banyak daripada Jeff Bezos.*
 wealth NAME more many from NAME
 Lit. 'Elon Musk's wealth is greater than Jeff Bezos.'
 c. $[\lambda d \in D_d. [\lambda x \in D_e. \text{AMOUNT}(x\text{'s wealth}) \geq d]]$
- (31) a. Discussing the risk of becoming infected with Covid-19.
 b. *Risiko lelaki men-jangkit-i covid-19 adalah lebih tinggi daripada perempuan.*
 risk man ACT-infect-APPL covid-19 COP more tall from woman
 Lit. 'The risk of men catching Covid-19 is higher than women.'
 c. $[\lambda d \in D_d. [\lambda x \in D_e. x \text{ has a risk of catching Covid-19 which is } d\text{-high}]]$

(32)

a.



- b. *Perjalanan dari England lebih panjang daripada Itali.*

journey from NAME more long from NAME

Lit. 'The journey from England (to Kuala Lumpur) is longer than Italy.'

- c. $[\lambda d \in D_d. [\lambda x \in D_e. \text{LENGTH}(\text{the journey from } x) \geq d]]$

(33)

- a. TED Talks are videos "that present a great idea in 18 mins or less". They discuss a variety of topics, e.g. technology, politics, psychology, linguistics, etc. Typically, TED Talks about technology receive the most views.

- b. *TED Talks tentang teknologi lebih populer daripada linguistik.*

TED Talks about technology more popular from linguistics

Lit. 'Ted Talks about technology are more popular than linguistics.'

- c. $[\lambda d \in D_d. [\lambda x \in D_e. \text{POPULARITY}(\text{TED Talks about } x) \geq d]]$

– A note on nominal **possessive constructions** in Malay: Malay does not mark case morphologically; genitive case must be indicated by the syntax (Lewis 1968; Mintz 1994). Specifically, the possessee appears first, with the possessor appearing post-nominally. It is not possible to elide the possessee and still get an interpretation in which it is present.

(34)

- a. You're talking to your friend about Amina and Sharifah's daughters; they're both super sweet! You have this dialogue...

- b. *Kamu: Anak perempuan Amina sanget comel.*

2SG child woman Amina very cute

You: 'Amina's daughter is very cute.'

- c. *Kawan kamu: Ya betul! Anak perempuan Sharifah juga sangat comel!*

friend 2SG yes right child woman NAME also very cute

Your friend: 'Yeah, that's right! Sharifah's daughter is also very cute!'

- d. *#Kawan kamu: Ya betul! — Sharifah juga sangat comel!*

friend 2SG yes right NAME also very cute

Lit. 'Your friend: 'Yeah, that's right! Sharifah is also very cute!'

Int. 'Your friend: 'Yeah, that's right! Sharifah's daughter is also very cute!'

(35)

- a. You and your friend go out for lunch. The food that you ate looked and tasted delicious, but the food that your friend ordered didn't look or taste as nice. You say to your friend...

- b. *Makanan saya sangat lezat, tetapi makanan kamu tidak.*

food 1SG very delicious but food 2SG NEG

'My food was delicious, but your food wasn't.'

- c. *#Makanan saya sangat lezat, tetapi — kamu tidak.*

food 1SG very delicious but 2SG NEG

Lit. 'My food was delicious, but you weren't.'

Int. 'My food was delicious, but yours wasn't.'

– **Overt extraction** is however not possible from Malay complex NPs. (Malay allows for Wh-movement, partial WH-movement and WH-in-situ; see also Cole & Hermon 1998).

- (36) *Perjalanan dari England panjang.*
 journey from England long
 ‘The journey from England is long.’
- (37) a. **Mana-kah yang perjalanan dari panjang?*
 where-Q REL journey from long
 Lit. ‘Where was the journey from long?’
 b. **Dari mana perjalanan panjang?*
 from where journey long
 Lit. ‘From where is the journey long?’
 c. *Perjalanan dari mana panjang?*
 journey from where long
 ‘The journey from where is long?’
- (38) *Buku tentang sintaks menarik.*
 book about syntax interesting
 ‘The book about syntax is interesting.’
- (39) a. **Apa-kah yang buku tentang menarik?*
 what-Q REL book about interesting
 Lit. ‘What is the book about interesting?’
 b. **Tentang apa buku menarik?*
 about what book interesting
 Lit. ‘About what is the book interesting?’
 c. *Buku tentang apa menarik?*
 book about what interesting
 ‘The book about what is interesting?’

– **Samoan** also robustly allows for readings that seem to be blocked by syntactic islands in English, including with relative clauses (see also Villalta 2007a,b) and other complex noun phrases.

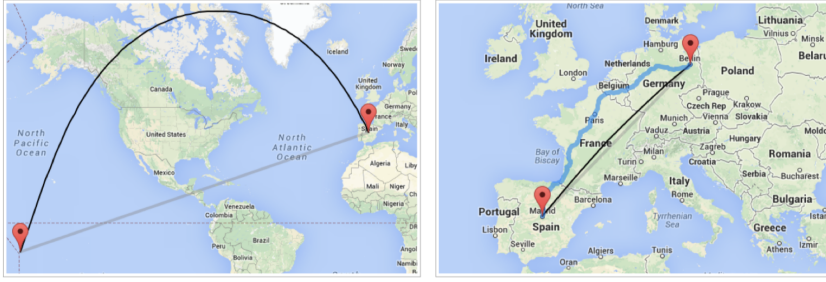
- (40) **Relative Clauses**
 a. A picture context depicting Mary reading a book with 335 pages and Temukisa with a book that has 120 pages.
 b. *E umi atu le tusi na faitau e Malia i lo Temukisa.*
 TAM long more the book TAM.PAST.PFV read ERG NAME at COMP NAME
 Lit. ‘The book which Mary read is longer than Temukisa.’
 c. $[\lambda d \in D_d. [\lambda x \in D_e. \text{LENGTH}(\text{the book which } x \text{ read}) \geq d]]$
- (41) a. Malia prepared a big dish of really nice palusami and taro for Tupe. For Telesia, she heated up some soup from a can that she bought at a store.
 b. *E lelei atu le mea'ai na fai e Malia mo Tupe nai lo Telesia.*
 TAM good more the thing+eat
 TAM.PAST.PFV make ERG NAME for NAME from COMP NAME
 Lit. ‘The food which Mary made for Tupe is better than Theresa.’
 c. $[\lambda d \in D_d. [\lambda x \in D_e. \text{QUALITY}(\text{the food which Mary made for } x) \geq d]]$
- (42) a. A picture context depicting Pika and Telesia with the books they are reading. Pika bought *Tala o le Vavau* for WST 125. Telesia bought *Tusi o Maufaufauga o Moana* for WST 19.
 b. *'O le tusi e taugata atu 'o lo'o faitau e Pika i lō Telesia.*
 FOC the book TAM expensive more TAM.IPFV read ERG NAME at COMP NAME
 Lit. ‘Pika is reading the book which is more expensive than Theresa.’
 c. $[\lambda d \in D_d. [\lambda x \in D_e. x \text{ is reading the book which is } d\text{-expensive}]]$

– Relative clauses are however islands for *wh*-movement in Samoan. (On the syntax and semantics of questions in Samoan, see also Hohaus & Howell 2015; Howell et al. 2022.)

- (43) a. A comic strip with two pictures, one introducing Telesia, who is in love with Pita. The other picture shows Malia talking to him.
 b. *‘O lo‘o talanoa Malia i le tama e alofa i ai Telesia.*
 TAM.IPFV talk NAME at the boy TAM love at ANAPH NAME
 ‘Mary is talking to the boy whom Theresa loves.’
 c. **‘O ai ‘o lo‘o Malia i le tama e alofa i ai ____?*
 FOC who TAM.IPFV NAME at the boy TAM love at ANAPH
 Lit. ‘Who is Mary talking to the boy that _ loves?’

(44) Complex Noun Phrases

- a. A picture context depicting Mary and Frank running across a school yard. Mary is well ahead of Frank.
 b. *E saosaoa le momo‘e a Malia i lo Falani.*
 TAM fast the run of NAME at COMP NAME
 Lit. ‘Mary’s running is faster than Frank.’
 c. $[\lambda d \in D_d. [\lambda x \in D_e. \text{SPEED}(x\text{'s running}) \geq d]]$

- (45) a. 
 b. *E umi atu le malaga mai Samoa i lo Siamani.*
 TAM long more the journey from NAME at COMP NAME
 Lit. ‘The journey from Samoa (to Spain) is longer than Germany.’
 c. $[\lambda d \in D_d. [\lambda x \in D_e. \text{LENGTH}(\text{the journey from } x) \geq d]]$

– Overt extraction is not possible from these types of complex noun phrases.

- (46) *E fiafia le tama i le ta‘avale o Pita.*
 TAM like the boy at the car of NAME
 ‘The boy likes Peter’s car.’
 (47) a. **‘O ai e fiafia le tama i le ta‘avale o ____?*
 FOC who TAM like the boy at the car of
 Lit. ‘Who does the boy like the car of?’
 b. **‘O o ai e fiafia le tama i le ta‘avale ____?*
 FOC of who TAM like the boy at the car
 Lit. ‘Of whom does the boy like the car?’
 c. *‘O le ta‘avale o ai e fiafia ai le tama?*
 FOC the car of who TAM like the boy ANAPH
 ‘Whose car does the boy like?’
 (48) *Sa umi le malaga mai Samoa.*
 TAM.PAST.PFV long the journey from NAME
 ‘The journey from Samoa was long.’
 (49) a. **‘O fea sa umi le malaga mai ____?*
 FOC where TAM.PAST.PFV long the journey from
 Lit. ‘Where was the journey long from?’

- b. *‘*O mai fea sa umi le malaga* ____?’
 FOC from where TAM.PAST.PFV long the journey
 Lit. ‘From where was the journey long?’
- c. ‘*O le malaga mai fea sa umi* ____?’
 FOC the journey from where TAM.PAST.PFV long
 ‘The journey from where was long?’

– While similar examples can be constructed with clausal subjects, these do not constitute islands for movement in the language (see Hohaus 2015).

3.4 Explaining the Puzzle

- In all of the relevant examples, the degree predicate underlying the comparison appears to be **syntactically derived**, that is, not identical to the denotation of the gradable predicate.
- Deriving the degree predicate would involve movement that violates **island constraints**, either movement of the DegP or of the associate NP.

- (24) *Sharifah hendak bilik yang lebih besar daripada Amina.*
 NAME want room REL more big than NAME
 Lit. ‘Sharifah wants a room that is bigger than Amina.’
 A comparison between Sharifah and Amina,
 along the size of the respective rooms they each want.

- (50) Degree predicate underlying the comparison:
 $[\lambda d \in D_d. [\lambda x \in D_e. x \text{ wants a room which is } d\text{-big}]]$

Moving the associate:

[[Sharifah want a room [relative clause $\lambda 1, e \ t_{1,e}$ [DegP more [PP than Amina]] big]]]
 \uparrow ____ \downarrow

Parasitic movement of the DegP out of the relative clause:

[Sharifah $\lambda 2, e \ [t_{2,e} \text{ want a room } [\text{RC } \lambda 1, e \ t_{1,e} \ [\text{DegP more [PP than Amina]] big]]]$
 \uparrow ----- \downarrow

[Sharifah [DegP more [PP than Amina]]
 $[\langle d, \langle e, t \rangle \rangle \lambda 3, d \lambda 2, e \ [t_{2,e} \text{ want a room } [\text{RC } \lambda 1, e \ t_{1,e} \ t_{3,d} \text{ big}]]]$
 $[[\text{more}]](\text{Amina})([\lambda d \in D_d. [\lambda x \in D_e. x \text{ wants a room which is } d\text{-big}])(\text{Sharifah})$

- (40) *E umi atu le tusi na faitau e Malia i lo Kisa.*
 TAM long more the book TAM.PAST.PFV read ERG NAME at COMP NAME
 Lit. ‘The book which Mary read is longer than Kisa.’
 A comparison between Mary and Kisa,
 along the length of the respective book they each read.

- (51) $[\lambda d \in D_d. [\lambda x \in D_e. \text{LENGTH}(\text{the book which } x \text{ read}) \geq d]]$

Moving the associate out of the relative clause:

[[the book [relative clause $\lambda 1, e \text{ Mary read } t_{1,e}$]] [[DegP more [PP than Kisa]] long]]
 \uparrow ----- \downarrow

Parasitic movement of the DegP:

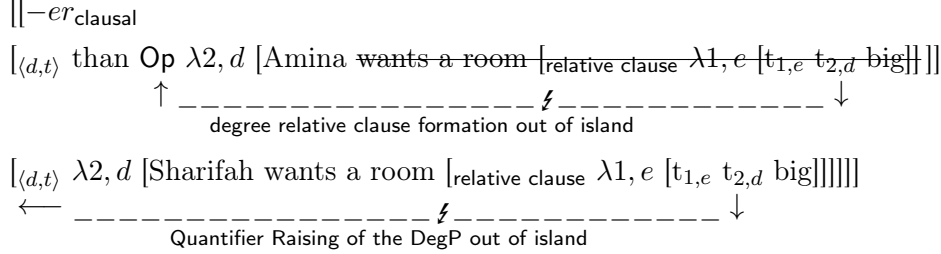
[Mary $\lambda 2, e \ [\text{the book } [\text{RC } \lambda 1, e \ t_{2,e} \text{ read } t_{1,e}]] \ [[\text{DegP more [PP than Kisa]] long]]$
 \uparrow ----- \downarrow

[Mary [DegP more [PP than Kisa]] $[\langle d, \langle e, t \rangle \rangle \lambda 3, d \lambda 2, e \ [\text{the book } [\text{RC } \lambda 1, e \ t_{2,e} \text{ read } t_{1,e}]] \ [t_{3,d} \text{ long}]]]$
 $[[\text{more}]](\text{Kisa})([\lambda d \in D_d. [\lambda x \in D_e. \text{LENGTH}(\text{the book which } x \text{ read}) \geq d]])(\text{Mary})$

– **Nota bene:** While a phrasal analysis is plausible for both Malay and Samoan, the puzzle is ultimately independent of the internal syntactic structure of the standard.

(52) $\llbracket -er_{\text{clausal}} \rrbracket = [\lambda D_2 \in D_{\langle d,t \rangle}. [\lambda D_1 \in D_{\langle d,t \rangle}. \text{MAX}(D_1) > \text{MAX}(D_2)]]$
(see also Heim 2001; Beck 2011)

(53) *Sharifah wants a room that is bigger
than Amina ~~wants a room that is big~~.



– If we were to assume a clausal analysis, the Logical Form required would still rely on movement out of a relative clause island (see also, for English, Kennedy 2002).

4 Re-Thinking the Composition of Comparatives

First View:

Despite the otherwise robust parallels between **overt and covert movement** (see, for instance, Tanaka 2019), a difference between the two, under which at least some LF movement does not have to obey island constraints. Relative clauses and complex NPs in Malay and Samoan inhibit only overt movement, but not all types of covert movement.

Second View:

The puzzle can inform our understanding of the composition underlying the comparative and invites us to re-think the syntactic status of the **standard phrase** as an argument of the comparative operator in Malay and Samoan.

– Additional **distributional evidence** for this view: Use of the standard marker outside of comparatives in both Malay and Samoan. Allows for attachment outside of relative clause islands that contain the DegP.

(54) *Saya menerima poskad daripada Eve.* – Malay –
1SG receive postcard from NAME
‘I received a postcard from Eve.’

(55) *Apple merancang untuk mengupah pekerja daripada pelbagai kaum dan jantina.*
NAME plan for employ employee from various tribe and gender
‘Apple plans to hire employees from various ethnicities and genders.’

(56) *E fafia Malia i Aukilani i lo Telesia.* – Samoan –
TAM like NAME at NAME at COMP NAME
Lit. ‘Mary likes Auckland than Theresa.’
‘Mary likes Auckland, compared to Theresa.’

(57) *I le tausaga e 2013 na lipoti mai ai e Falani le siitia o*
at the year TAM 2013 TAM.PAST.PFV report DIR ANAPH ERG Frank the rise of
le numera o tagata asiasi mai i Samoa i lo le tausaga e 2012.
the number of person visit DIR at Samoa at COMP the year TAM 2012
Lit. ‘For the year 2013, Frank reported a rise in the number of visitors to Samoa
than the year 2012.’
‘For the year 2013, Frank reported a rise in the number of visitors to Samoa
compared to the year 2012.’

- (42) [‘O le tusi [e taugata atu]] ‘o lo’o faitau e Pika i lō Telesia.
 FOC the book TAM expensive more TAM.IPFV read ERG NAME at COMP NAME
 Lit. ‘It is the book which is more expensive that Peter is reading, than Theresa.’

The Proposal: The comparative in Malay and Samoan is a comparative with a contextual standard. The preposition phrase is not an argument of the comparative operator but rather a framing adjunct (Chafe 1976, Bellert 1977, Maienborn 2001, Krifka 2007), which adds a restriction on the minimal situations that make the sentence true (Hohaus 2015).

- (10) Mee Mee lebih tinggi daripada Eve. – Malay –
 NAME more tall from NAME
 Lit. ‘Mee Mee is taller, from Eve.’
 ‘Mee Mee is taller, compared to Eve.’
- (58) E umi atu Mee Mee nai lo Eve. – Samoan –
 TAM tall more NAME from COMP NAME
 Lit. ‘Mee Mee is taller, from the comparison with Eve.’

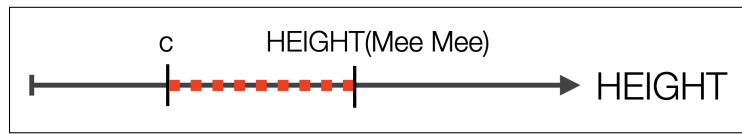
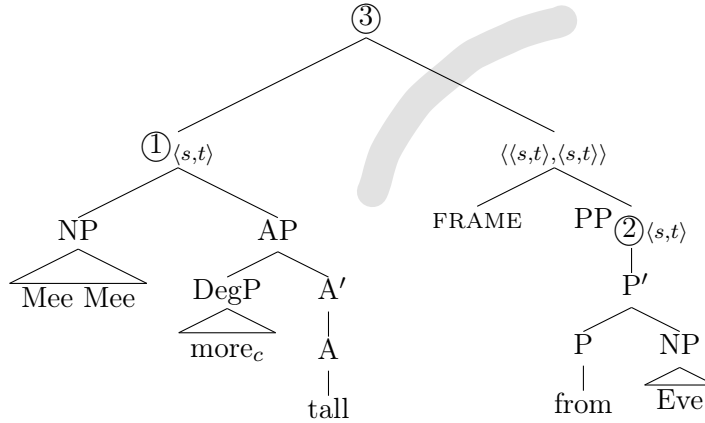


Figure 4: Contextual Comparison on the Height Scale

Informally:

- Restriction from the framing adverbial:
 The set of minimal situations in which Eve is the standard of a comparison.
- Truth-conditional contribution of the contextual comparative:
 The set of situations in which Mee Mee is taller than the contextual standard.
- The restriction can only be met if the standard of the comparison is set to Eve’s height.

- (59) Logical Form



- (60) The Interpretation of the Contextual Comparative

- a. $\llbracket \text{tall} \rrbracket = [\lambda d \in D_d. [\lambda x \in D_e. [\lambda s \in D_s. \text{HEIGHT}(s)(x) \geq d]]]$
- b. $\llbracket \text{more} \rrbracket = [\lambda c \in D_d. [\lambda R \in D_{\langle d, \langle e, \langle s, t \rangle \rangle} \cdot [\lambda x \in D_e. [\lambda s \in D_s. \exists I [\text{beg}(I) = c \ \& \ \text{end}(I) = \text{MAX}(\lambda d. R(d)(x)(s) = 1)]]]]]]]$
- c. $\llbracket \textcircled{1} \rrbracket^g = [\lambda s \in D_s. \exists I [\text{beg}(I) = c \ \& \ \text{end}(I) = \text{HEIGHT}(s)(\text{Mee Mee})]]]$
 ‘The set of situations in which there is a proper degree interval whose left boundary is the contextual standard and whose right boundary is Mee Mee’s height.’
 ‘The set of situations in which Mee Mee is taller than the contextual standard.’

(61) The Interpretation of Frames

- a. $\llbracket \text{FRAME} \rrbracket = [\lambda p \in D_{\langle s, t \rangle}. [\lambda q \in D_{\langle s, t \rangle}. [\lambda s \in D_s \ \& \ \text{MIN}(p)(s) = 1. \ q(s) = 1]]]$
'Evaluation situations have to minimally satisfy the content of the frame.'
- b. $\llbracket \text{MIN} \rrbracket = [\lambda p \in D_{\langle s, t \rangle}. [\lambda s \in D_s. \ p(s) = 1 \ \& \ \neg \exists s' [s' \prec s \ \& \ p(s') = 1]]]$,
where \prec is the proper-part relation between situations

(62) The Interpretation of the Standard Marker

- a. $\llbracket \text{from} \rrbracket = [\lambda x \in D_e. [\lambda s \in D_s. \ \exists I, \mu [\text{beg}(I) = \mu(s)(x)]]]$
A source prepositions across scalar domains from paths to degree scales.
- b. $\llbracket \textcircled{2} \rrbracket = [\lambda s \in D_s. \ \exists I, \mu [\text{beg}(I) = \mu(s)(\text{Eve})]]]$
'The set of situations in which a proper degree interval
whose left boundary is some measure of Eve's.'
'The set of situations in which Eve is the standard of a comparison.'

(63) Sentence Interpretation

For any evaluation situation s^* ,
 $\llbracket \textcircled{4} \rrbracket^g(s^*)$ is defined iff s^* is a minimal situation such that $\exists I, \mu [\text{beg}(I) = \mu(s^*)(\text{Eve})]$.
Only if defined, $\llbracket \textcircled{4} \rrbracket^g(s^*)$ is true iff $\exists I [\text{beg}(I) = c \ \& \ \text{end}(I) = \text{HEIGHT}(s^*)(\text{Mee Mee})]$.

Apparent Out-of-Island Readings:

- (32) *Perjalanan dari England lebih panjang daripada Itali.* – Malay –
journey from NAME more long from NAME
Lit. 'The journey from England is longer than Italy.'

- (45) *E umi atu le malaga mai Samoa i lo Siamani.* – Samoan –
TAM long more the journey from NAME at COMP NAME
Lit. 'The journey from Samoa is longer than Germany.'

(64) Interpretation, informally:

- Restriction from the framing adverbial:
The set of minimal situations in which Germany is the standard of a comparison.
 - Truth-conditional contribution of the contextual comparative:
The set of situations in which the journey from Samoa
is longer than the contextual standard.
- The restriction can only be met if the standard of the comparison is set
to the duration of the journey from Germany.

(65) Interpretation, more formally:

For any evaluation situation s^* , $\llbracket (45) \rrbracket^g$ is defined
iff s^* is a minimal situation such that $\exists I, \mu [\text{beg}(I) = \mu(s^*)(\text{Germany})]$.
Only if defined, $\llbracket (45) \rrbracket^g$ is true
iff $\exists I [\text{beg}(I) = c \ \& \ \text{end}(I) = \text{DURATION}(s^*)(\text{the journey from Samoa})]$.

– Interpretation of the DegP in situ, no movement out of the island required.
A case of “**pragmatic ellipsis**”, rather than syntactic or semantic ellipsis.

5 Towards a Typology

In Summary:

- An interesting puzzle for the textbook analysis of comparatives,
from **apparent out-of-island readings** in Malay and Samoan.
- Framing as an indirect, independent **pragmatic mechanism**
of determining the standard of the comparison.
- A case study on how research on **under-represented languages**
can inform our theory building in syntax and semantics.

A Typology:

- Three related **points of variation** in the syntax and semantics of standards across languages:
 1. The internal syntax of the standard: Is it phrasal or clausal?
 2. The syntax and semantics of the standard marker:
What is its contribution to the meaning of the comparative?
 3. Compositional status of the standard constituent:
Is the standard an argument of the comparative operator or not?

Abbreviations Used in Glosses

1, 2 = first, second person, ACT = active, ANAPH = anaphoric pronoun, APPL = applicative, COMP = standard marker, COP = copula, DIR = directional particle, ERG = ergative, FOC = marker of focus alternatives, IPFV = imperfective, NEG = negation, PART = particle, PASS = passive, PAST = past, PFV = perfective, PROG = progressive, Q = question marker, REL = relativiser, SG = singular, and TAM = tense-aspect marker.

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