

A Fringe Case of Perfect from Mee

Christine Marquardt, Marie-Luise Schwarzer, Sören E. Tebay
University of Leipzig

TripleA 5 Konstanz 27-29 June 2018

1 Contribution

1. We describe the morpho-semantics of the perfect and the graded past tense system in Mee (Trans-New-Guinea).
2. We show that Mee exhibits a resultative perfect, lacking one of the core readings usually ascribed to the perfect (experiential reading).
3. An analysis needs to make explicit reference to the result state in the denotation.

2 Introduction

- Mee (aka Ekari), Trans-New-Guinea
- 100.000 speakers (1985, Simons and Fenning 2018)
- spoken in the West Central Highlands of Papua (Indonesia)
- our data: Lake Paniai dialect
- All data were elicited with a native multilingual speaker in Leipzig, Germany from 07/2017 – 05/2018 and checked with a second native speaker.
- contact language: German
- tasks used: translation, acceptability and grammaticality judgments, storyboard (*Miss Smith's Bad Day*, Matthewson 2014)
- All verbal predicates in Mee contain an obligatory tense/aspect morpheme.

- (1) *Verbal morphology*
(object agreement) – verbal root – TAM – subject agreement – (Mood)
 - (2) Okai-ki okai e-doo-p-i-gaa.
3SG-M 3SG 3SG.OBJ-see-PERF-3SG.M-HYP
“Maybe he saw him.”
 - (3) *Anteriority markers:*
• *-eteg/ -emeg* REM.PST (intraspeaker variation)
• *-eg* REC.PST
• *-p* PERF
- Most tense/aspect morphemes are not compatible with one another.
- (4) Ani-ki kou gaa kou buku ebate-ete-(e)g-a.
1SG-M DET.F moment DET.F book read-PROG-REC.PST-1SG
“Yesterday when you called) I was reading a book.”
 - (5) *Ani nota bonai te-igi-p-a.
1SG sweet.potato hide do-HAB-PERF-1SG
intended: “I always used to hide the sweet potato.”

3 Graded past tense

Languages vary in how they encode temporal relations.

- tenseless languages (like Paraguayan Guarani, where tense is encoded through adverbs and context, Tonhauser 2011)
- binary or ternary systems (like German past/non-past)
- graded tense systems (like Gikūyū where the grade of temporal distance is encoded additional to anteriority/posteriority, Cable 2013)

- In Mee, *-eg* is usually used for more recent events, and *-eteg* for distant ones.

(6) Geto ko, Robert ki pasar uwe-eg-i/ #uwe-eteg-i.
yesterday DET Robert DET.M market go-REC.PST-3SG/ go-REM.PST-3SG
“Robert went to the market yesterday.”

(7) Context: Robert went to the market three days ago.
Robert ki pasar uwe-eteg-i/ #uwe-eg-i.
Robert DET market go-REM.PST-3SG/ go-REC.PST-3SG
“Robert went to the market.”

But the *-eteg* REM.PST can also be used in the following context:

- (8) Context: Robert went to the market at 4pm. Now it is still the afternoon. You say:
Robert ki pasar uwe-eg-i/ uwe-eteg-i/ uwi-p-i.
Robert DET market go-REC.PST-3SG.M go-REM.PST-3SG.M go-PERF-3SG.M
“Robert went to the market.”

-p is not a past tense

- *-p* has previously been described as recent past in Doble 1987.
 - *-p* can be used to refer to an event anterior to a future time, as in (34-a)
- ⇒ *-p* is not restricted to past
- (9) Context: You talk about what you want to do when you are an old man.
- a. Ani adama ki-p-a ko, ani uno umina ta-it-a.
1SG old become-PERF-1SG C 1SG sleep much AUX-FUT-1SG
“When I will have gotten old, I will sleep a lot.”
 - b. *Ani adama ke-eg-a ko, ani uno umina ta-it-a.
1SG old become-REC.PST-1SG C 1SG sleep much AUX-FUT-1SG
- A past tense would be predicted to combine with progressive aspect to yield a past progressive reading. *-p* cannot combine with the progressive marker *-ete*.

(10) Context: What were you doing when I called you yesterday?

a. *Ani-ki kou gaa kou buku ebate-ete-p-a.
1SG-M DET.F moment DET.F book read-PROG-PERF-1SG
“(Yesterday when you called) I was reading a book.”

b. Ani-ki kou gaa kou buku ebate-ete-(e)g-a.
1SG-M DET.F moment DET.F book read-PROG-REC.PST-1SG
“(Yesterday when you called) I was reading a book.”

But: Note that different TAM morphemes are generally not easily combinable in Mee.

4 The Perfect

4.1 Perfect properties (Bertrand et al. 2017)

- The perfect is a heterogeneous category.
- Many semantic studies have focused on the English Present Perfect (i.a. Klein 1994; Mittwoch 1995; Portner 2003).
- Cross-linguistic studies reveal its diverse properties (i.a. Bybee et al. 1994; Dahl and Velupillai 2011; Bertrand et al. 2017).

(11) *Properties of the perfect* (i.a. Bertrand et al. 2017; McCawley 1971; Comrie 1976; McCoard 1978)

- experiential reading and repeatability effects (dead subjects)
- universal or continuous reading
- resultative reading and cancellability of result state
- recent past
- restrictions on use with definite time adverbials
- interaction with lexical aspectual classes (*Aktionsarten*)

- Based on a sample of 17 languages, Bertrand et al. (2017) propose 3 types of perfects:

1. Experiential perfect: allows experiential reading (no dead subjects) and adverbials, disallows all else
2. Resultative perfect: disallows experiential reading, allows resultative reading, variation on other points
3. Hybrid strategy: allows both experiential and resultative readings, variation on other points

⇒ Mee -p shows a resultative strategy

- Resultative perfect is a very heterogeneous group. We want to enrich the typology to uncover more commonalities between its members.

Experiential reading

- An event occurred at least once in an interval prior to RT, is not necessarily ongoing at RT (based on Mittwoch 2008).

(12) Verry has been to Paniai (and he is still there).

- -p is not felicitous with this reading:

(13) Context: The teacher asks the children ‘Have you ever been to the forest?’ Child answers:

Ani aiko buguwa uwe-eteg-a/ *uwi-p-a.
1SG there forest go-REM.PST-1SG go-PERF-1SG

“I have been to the forest.”

from storyboard (Matthewson, 2014)

(14) (Tika miyo-ka tawani wii ko) ani-ki ani weneekane-ido-ma Ugida
earlier previous-OBL year four DET 1SG-M 1SG.POSS little.sibling-PL-with Ugida
dimi-(e)pa uwe-eteg-e/ *uwi-p-e.
summit-LOC go-REM.PST-1PL go-PERF-1PL
“Four years ago, me and my siblings went up mount Ugida.”

Universal reading

- A state induced by an event at some point prior to RT holds from that point until RT (Bertrand et al., 2017).

(15) Verry has been living in Paniai (#and he is still there).

(16) Context: You moved to Paniai in 2002 and you still live there.

Ani-ki (tawani 2002 make ko) Paniai umi-p-a/ ume-eg-a.
1SG-M year 2002 since DET Paniai live-PERF-1SG live-REC.PST-1SG

“I have lived in Paniai since 2002.”

(17) Ani-ki (tawani 2002 make) didi to-p-a.
1SG-M year 2002 since ill stay-PERF-1SG
“I have been sick since 2002.”

Resultative reading

- A state caused by the occurrence of an event obtains at RT (Iatridou et al., 2001; Mittwoch, 2008).

(18) Sally has bought a new dress #but she gave it away.
(Tallman and Stout, 2016)

- Contrast this with the simple past, where a result state is not required to hold.

(19) Sally bought a new dress, but she gave it away.

- The resultative reading is obligatory for *-p*. *-p* is infelicitous when the result state ceases to hold, compare (20) and (21).

(20) Context: I lost my glasses 2-3 weeks ago. They're still gone.

Ana dou-peka kou iga-**p-a/** iga-**ateg-a**.
1SG.POSS see-eye DET.F lose-PERF-1SG/ lose-REM.PST-1SG

"I lost my glasses."

(21) Context: I lost my glasses 2-3 weeks ago. I found them again some time later.

Ana dou-peka kou #iga-**p-a/** iga-**ateg-a**.
1SG.POSS see-eye DET.F lose-PERF-1SG/ lose-REM.PST-1SG

"I lost my glasses."

Culmination is cancellable

In a sentence like (22), the culmination of an event (a finished house) is understood to hold.

- (22) Miyoka tawani ko, inii-ke inii-ya owaa migi-p-e...
previous year DET 1PL-FEM 1PL-GEN house build-PERF-1PL
"Last year, we have built our house..."

This culmination can be cancelled by a sentence like (23). There is no contradiction.

- (23) ... kodoya ito too ko migi-doke tai beu.
but now until DET build-INTRANS.ACCOM do *neg*
"... but until now, it is not finished yet."

Recent past

-p is also used in recent past contexts.

- (24) a. Okai-ki kiyai ti-p-i.
3SG-M laugh do-PERF-3SG.M
"He just laughed."
b. Robert ki pasar uwi-p-i.
Robert DET market go-PERF-3SG.M
"Robert went to the market (context: he went to the market this morning, now it is evening)."

Adverbials

- English present perfect is reported to be incompatible with definite time adverbials (Bertrand et al. 2017)

(25) # Pat has climbed Mount Everest last year.

- In Mee, definite time adverbials are compatible with *-p*:

- (26) a. Geto ko, ani pasar uwi-p-a.
yesterday DET 1SG market go-PERF-1SG
"Yesterday I went to the market."
b. Ani-ki geto amaya daki ti-p-a.
1SG-M yesterday twice arrive do-PERF-1SG
"I arrived two days ago."
(27) Ani-ki wanee woya kou wiyani to ti-p-a.
1SG-M night long DET sing only do-PERF-1SG
"I sang all day today."

Narrative progression

English present perfect may not be used to express progression in a narrative.

- (28) #Mary has arrived. She has sat down and has called her mother.

Mee *-p* may be used in that context.

- (29) Maria kou daki ti-p-a, okai-ko anima ki-p-a, koudamake kou
Maria DET arrive do-PERF-3SG.F 3SG-F sit make-PERF-3SG.F then DET
ukame mana e-ti-p-a.
mother voice 3OBJ-do-PERF-3SG.F
"Maria arrived. She sat down and called her mother."

Lexical aspectual classes

- In English, present perfect yields anteriority reading for all *Aktionsarten*.
- In other languages like Niuean and Javanese, perfect-marked stative verbs receive an inchoative reading, (30).

- (30) kua lalahi (tei) e tau tama haau
PRF big recent ABS PL child 2SG.POSS
"Your children have grown."
(Niuean, Matthewson et al. (2015))

- individual level statives yield a change-of-state/inchoative reading

- (31) a. Kou api kou dege ki-p-a.
DET girl DET blond make-PERF-3SG.F
"The girl became blond."
b. Kou api kou dege to-p-a.
DET girl DET blond stay-PERF-3SG.F
"The girl is blond right now (but won't be soon)."

- stage level statives yield an in-progress reading

- (32) Damo kou digimita to-p-a.
door DET dark stay-PERF-3SG.F
“The door is black.”

- activities yield a recent past reading (action is completed at RT)

- (33) Ani-ki kiyai ti-p-a.
1SG-M laugh do-PERF-1SG
“I have laughed (not laughing anymore).”

- Accomplishments yield a resultative reading, but the culmination is cancellable (recall example (22) and (23)).

Summary: Characteristics of the perfect

	English PRES PERF	Mee -p	Mandarin <i>le</i>
Experiential reading	✓	✗	✗
Universal reading	✓	✓	(✓)
Resultative reading	✓	✓	✓
Adverbials possible	✗	✓	✓
Narrative progression	not possible	possible	not possible
Aktionsarten	no interaction	interaction	?

(English and Mandarin data from Bertrand et al. (2017))

5 Analysis & Discussion

Alternative analyses

- Previous analyses have tried to group either experiential and universal or resultative and experiential, or otherwise all three readings of perfect (cf. Nishiyama and Koenig 2010).
 - An analysis only requiring ET to precede RT (i.a. Klein 1994) is not sufficient, since it does not exclude experiential perfect. Current relevance (i.a. Inoue 1979) cannot save the analysis (cf. example (13)).
 - A perfect time span analysis easily groups experiential and resultative perfect (existential quantification) vs. universal perfect (cf. Iatridou et al. 2001).
- ⇒ Therefore, to derive the Mee data, it would have to make a tripartite distinction for all three perfect readings. (cf. Pancheva 2003).
- An extended now analysis (i.a. Portner 2003) cannot explain the absence of lifetime effects.

Temporal Relations

- -p does not refer to the UT, since it can also be used in future contexts.
- Instead it refers to a contextually given reference time.

- (34) Context: You talk about what you want to do when you are an old man.

- a. Ani adama ki-p-a ko, ani uno umina ta-it-a.
1SG old become-PERF-1SG C 1SG sleep much AUX-FUT-1SG
“When I will have gotten old, I will sleep a lot.”

Resultative Semantics

- The relation between the event and the caused state is explicitly encoded in the lexical entry (written as ‘R(e,s)’, Bohnemeyer 2014; McDermott 1982; Moens and Steedman 1988; Smith 1997; Nishiyama and Koenig 2010)
 - The resultative perfect relates the time of the result state ST to a reference time RT.
 - The reference time RT has to be included in the result state time ST.
 - I.e. the state has to hold at the reference time.
- This already derives the resultative meaning directly.

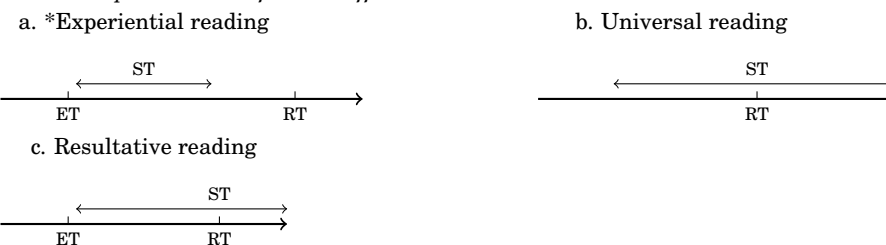
Denotation of -p

- (35) Denotation of -p

$$\llbracket -p \rrbracket^{g,c} = \lambda P. \lambda t. \exists e [P(e) = 1 \ \& \ \exists s [R(e,s) \ \& \ t \subseteq ST]]$$

- For some event there is some state, such that:
 - The state s is the result (R) of the event e.
 - The state s holds at the reference time RT.

- (36) Schematic representation of ST in different contexts



Example derivation

- (37) Example for resultative perfect

Ana dou-peka kou iga-p-a
1SG.POSS see-eye DET.F lose-PERF-1SG

‘I lost my glasses.’

- (38) Derivation
combination of perfect marker with the sentence

$$\text{lose}(I, \text{glasses}) [\lambda P. \lambda t. \exists e [P(e) = 1 \ \& \ \exists s [R(e,s) \ \& \ t \subseteq ST]]]$$

substitution

$$\lambda t. \exists e [\text{lose}(I, \text{glasses})(e) = 1 \ \& \ \exists s [R(e,s) \ \& \ t \subseteq ST]]$$

default substitution of t with UT

$\exists e [lose(I, glasses)(e) = 1 \ \& \ \exists s [R(e, s) \ \& \ UT \subseteq ST]]$

i.e. ‘There is an event such that this event of me losing my glasses is true and there is a state such that it is a result state of me losing my glasses and this state holds at the utterance time’ = ‘My glasses are still lost.’

No experiential perfect

- **The experiential reading can be excluded, because the result state does not hold at the reference time anymore.**
- **In the below example: the children are not in the forest anymore, when the teacher asks.**

(39) Context: The teacher asks the children ‘Have you ever been to the forest?’ Child answers:

Ani aiko buguwa uwe-eteg-a/ #uwi-p-a.
1SG there forest go-REM.PST-1SG go-PERF-1SG
‘I have been to the forest.’

Universal perfect or on the nature of the R relation

- The universal perfect reading can be derived, if we assume that the R relation is reflexive for states.
- Therefore, -p can be used if the state itself is true at RT.

(40) R relation

Input	Output
state _{<i>i</i>}	state _{<i>i</i>}
achievement _{<i>i</i>}	result state _{<i>j</i>}
accomplishment _{<i>i</i>}	result state _{<i>j</i>} (culmination only implied)
activity _{<i>i</i>}	posttime (Klein, 1994)

(41) Context: You moved to Paniai in 2002 and you still live there.

Ani-ki tawani 2002 make ko Paniai umi-p-a.
1SG-M year 2002 since C Paniai live-PERF-1SG
‘I have lived in Paniai since 2002.’

Discussion: Presupposition or Denotation

- Under negation, activities do not yield a universal reading.
- Therefore, we can assume that the result state condition does not project through negation.
- The result state condition therefore is part of the denotation.

(42) Context: You were on a party last week and met Gusti there. You are asked how Gusti is, but you did not talk to him.

Ani-ki okai ma mana te-ewega-pa.
1SG-M 3SG with voice NEG-talk-PERF
Ich habe nicht mit ihm geredet (at the party / *since).

Discussion: Kobepa (2015)

- Kobepa (2015) (in a paper on the recent past) analyzes the difference between past tense -g and perfect -p as a difference in verbal definiteness, i.e. evidentiality.
- -p is analyzed as expressing that the speaker has not witnessed the event and only infers from the result state.
- This is not necessarily incompatible with our analysis.
- In our case the result states relation to the reference time is encoded in the lexical entry, in Kobepa’s account it is the inference from the result state (cf. Nishiyama and Koenig 2010).
- Perfect is known to influence evidentiality in other languages (e.g. Lindstedt 2000)

6 Conclusion

- The Mee perfect is a relevant addition to the typology of perfect.
- It combines resultative and universal perfect but excludes experiential perfect.
- An analysis has to make explicit reference to the result state.

Thanks

We thank our consultants Antonius Zaverius ‘Verry’ Agapa and Agustinus ‘Gusti’ Giyai and three anonymous reviewers.

References

- Bertrand, A., Andreotti, B., Burge, H., Chen, S., Gambarage, J., Guntly, E. A., Heins, T. J., Huijsmans, M., Kassam, K., Matthewson, L., McClay, E. K., Reisinger, D., Rullmann, H., Salles, R., Schwan, M. D., and Klok, J. V. (2017). Nobody’s perfect. *Talk presented at the workshop on the Semantics of Verbal Morphology in Underdescribed Languages*. University of Gothenburg, Sweden.
- Bochnak, M. R. and Klecha, P. (2015). Temporal remoteness and vagueness in past time reference in luganda. In *Proceedings of 45th annual conference on African linguistics (ACAL)*.
- Bohnemeyer, J. (2014). Aspect vs. relative tense: The case reopened. *Natural Language & Linguistic Theory*, 32(3):917–954.
- Bybee, J. L., Perkins, R. D., and Pagliuca, W. (1994). *The evolution of grammar: Tense, aspect, and modality in the languages of the world*, volume 196. University of Chicago Press Chicago.
- Cable, S. (2013). Beyond the past, present, and future: towards the semantics of ‘graded tense’ in gikūyū. *Natural Language Semantics*, 21(3):219–276.
- Comrie, B. (1976). *Aspect: An introduction to the study of verbal aspect and related problems*. Cambridge University Press.
- Dahl, Ö. and Velupillai, V. (2011). The past tense. *The World Atlas of Language Structures online*.
- Doble, M. (1987). A description of some features of Ekari language structure. *Oceanic Linguistics*, 26(1/2):55–113.
- Iatridou, S., Anagnostopoulou, E., and Izvorski, R. (2001). Observations about the form and meaning of the perfect. In *In: Kenstowicz, M. (Ed.), Ken Hale: A life in language*. MIT Press.

- Inoue, K. (1979). An analysis of the English present perfect. *Linguistics*, 17:561–589.
- Klein, W. (1994). *Time in Language*. Routledge, London.
- Kobepa, N. (2015). Kala lampau terdekat dalam bahasa mee [recent past tense in the mee language]. *Paramasastra*, 2(1).
- Lindstedt, J. (2000). The perfect-aspectual, temporal and evidential. In Dahl, Ö., editor, *Tense and Aspect in the Languages of Europe*, pages 365–384. Mouton de Gruyter.
- Matthewson, L. (2014). Miss Smith's bad day. *Totem Field Storyboards*, page Retrieved from <http://www.totemfieldstoryboards.org> on 23 January 2018.
- Matthewson, L., Quinn, H., and Talagi, L. (2015). Inchoativity meets the Perfect Time Span: The Niuean perfect. *Lingua*, 168:1–36.
- McCawley, J. (1971). Tense and time reference in English. In Fillmore and Langendoen, editors, *Studies in Linguistic Semantics*, pages 96–113. Holt Rinehart and Winston, New York.
- McCoard, R. W. (1978). *The English perfect: Tense-choice and pragmatic inferences*. Elsevier Science Ltd.
- McDermott, D. (1982). A temporal logic for reasoning about processes and plans. *Cognitive Science*, 6(2):101–155.
- Mittwoch, A. (1995). The English perfect, past perfect and future perfect in a neo-Reichenbachian framework. *Temporal reference, aspect and actionality*, 2:255–267.
- Mittwoch, A. (2008). The English resultative perfect and its relationship to the experiential perfect and the simple past tense. *Linguistics and philosophy*, 31(3).
- Moens, M. and Steedman, M. (1988). Temporal ontology and temporal reference. *Computational linguistics*, 14(2):15–28.
- Nishiyama, A. and Koenig, J.-P. (2010). What is a perfect state? *Language*, 86(3):611–646.
- Pancheva, R. (2003). The aspectual makeup of perfect participles and the interpretations of the perfect. In Alexiadou, A., Rathert, M., and von Stechow, A., editors, *Perfect explorations*, pages 277–306. Walter de Gruyter, Berlin.
- Portner, P. (2003). The (temporal) semantics and (modal) pragmatics of the perfect. *Linguistics and Philosophy*, 26(4):459–510.
- Simons, G. F. and Fenning, C. D., editors (2018). *Ethnologue: Languages of the World*, volume Twenty-first edition. SIL International, Dallas, Texas. Online version: <http://www.ethnologue.com>.
- Smith, C. S. (1997). The parameter of aspect. *Studies in linguistics and philosophy (Vol. 43)*.
- Tallman, A. and Stout, T. (2016). The perfect in Chacobo (Pano) from a crosslinguistic perspective. *Proceedings of SULA 9*, pages 197–212.
- Tonhauser, J. (2011). Temporal reference in Paraguayan Guaraní, a tenseless language. *Linguistics and Philosophy*, 34(3):257–303.

Appendix

Vagueness (Bochnak and Klecha, 2015)

- Temporal remoteness in Mee appears to be somewhat **vague**.
 - Vagueness (Bochnak and Klecha, 2015): remoteness is not absolute (e.g. a marker is constrained to *yesterday* or *1 month ago*), but varies with the context.
- (43) Context: You plant your crops every February. It is now April, and I ask you what you planted this year.
- Nsimbye kasooli.
1SG.plant.REC.PST maize
“I planted maize.”
Luganda, Bochnak & Klecha (2015)
- (44) Context: We are at a party. I ask you why you're not dancing to the song that's playing. You say, you danced a few songs ago.
- Nazina luli.
1SG.dance.DIST.PST another.time
“I danced a while ago (to another song).”
Luganda, Bochnak & Klecha (2015)
- But when we tested vagueness systematically (following Bochnak and Klecha 2015), all tests failed.
- (45) Context: You reap your crops every year in January. Now it is March and I ask you what you reaped.
- Ani-ki nota kega-ateg-a/ #kega-ag-a.
1SG-M sweet.potato reap-REC.PST-1SG/ reap-REM.PST-1SG
“I reaped sweet potatoes.”
- (46) Context: I ask you why you are not dancing to the song that's playing. You say, you danced a few songs ago.
- Ani-ko yukuma-ka wiyani kou mogi wainei ti-p-a/ #wainei
1SG-F few-OBL song DET skirt dance AUX-PERF-1SG dance
te-eg-a/ #wainei te-emeg-a.
AUX-REC.PST-1SG dance AUX-REM.PST-1SG
“I danced a few songs ago.”