Duality and phasal polarity in Oceanic languages

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My thesis

Tense, mood, and aspect expressions in Nafsan (South Efate) from a typological perspective The perfect aspect and the realis/irrealis mood



Nafsan: Fieldwork

- grammar (Thieberger, 2006), corpus (Thieberger, 1995–2018)
- storyboards (von Prince, 2017; Krajinović, 2018)
- questionnaires (Dahl, 2000b; Olsson, 2013; Veselinova, 2018)
- data archived in PARADISEC (Krajinović, 2017)



Figure 1: Efate with locations where Nafsan is spoken

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- When the realis/irrealis mood is expressed by portmanteau subject markers, as in Nafsan, one of the two paradigms can be semantically underspecified.
 - this reanalysis explains some of the "unexpected" behavior of this category, e.g. occurrence of "realis" in contexts otherwise associated with irrealis

• duality of aspectual particles 'already' and 'still' (Löbner, 1989): the external negation of 'already' is equivalent to the internal negation of 'still' and *vice versa*

Duals

- (1) Are the lights already on? No. \equiv the lights are still off
- (2) Are the lights still on? No. \equiv the lights are already off

Introduction Duality and phasal polarity Oceanic duality patterns Change of state Additional 'still' markers Conclusion

Duality and phasal polarity



Figure 2: Duality schema with English particles, based on Löbner (1989)

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Duality and phasal polarity



Figure 3: Duality schema with English and Portuguese particles, based on Löbner (1989)

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- criticism by van der Auwera (1993, 2018) and van Baar (1997)
 - not all duality relationships are equally transparent formally while 'still not' is fairly common for the meaning of 'not yet', we don't find 'not already not' for 'still' (van der Auwera, 1993; van Baar, 1997)
 - duality hypothesis does not account for additional aspectual particles, e.g. "counterexpectational" 'still' markers, found in van Baar's (1997) typological study

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 many Oceanic languages express the meaning of change of state in their TMA systems, through particles that have often been analyzed as perfect aspect or 'already'

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- many Oceanic languages have very rich inventories of aspectual particles
 - anguages can have additional particles which are not a part of the duality system

Languages in this study



Figure 4: Four languages featured in this study











Change of state



The meaning of change of state: PRF (CoS)

(3) [Toqabaqita] Fanua e rodo naqa. place 3SG.NFUT be.dark PRF 'It is dark now. / It has gotten dark.' (Lichtenberk, 2008:712)
(4) [Nafsan] Malfane nal-u-k ki=pe taar. now hair-v-1SG.DP 3SG.PRF=PRF be.white

'My hair is blond now.' (AK1-146-03, 00:03:31.991-00:03:33.853)



PRF (CoS) + NEG: 'not anymore'

(5) [Toqabaqita]

Kera araqi naqa. Kesi talaqa-na naqa raa-laa [...] 3PL.NFUT be.old. PRF 3PL.NEG fit-3.OBJ PRF work-NMLZ 'They [the speaker's parents] had grown old. They were **no longer** able to work [...]' (Lichtenberk, 2008:1283)

(6) [Nafsan]

totur ntau i=nru nal-u-k ga i=miel me malfane during year 3sG=two hair-v-1sG.DP 3sG 3sG=be.red but now nal-u-k ki=**pe** ta miel mau. hair-v-1sG.DP 3sG.PRF=PRF NEG1 be.red NEG2 'During these two years my hair was red, but it's **not** red **anymore**.' (AK1-154-03, 00:03:36.645-00:03:52.483)

Negation of perfect with bounded events

(7) [Toqabaqita] Wane baa qe=aqi si fula naqa. man that 3SG.NFUT=NEGV 3SG.NEG arrive PRF 'The man has not arrived.' (Lichtenberk, 2008:180)

(8) [Nafsan]

Malen pa=lerkai=petamtirnatus mau.when 2sg.IRR=back 1sg.PRF=PRF NEG1 write letter NEG2'When you come back, I will not have written the letter.' (by LionelEmil, 19/06/2018)

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Malen pa=ler kai=**pe** ta mtir natus **mau**. when 2sg.IRR=back 1sg.PRF=PRF NEG1 write letter NEG2 'When you come back, I will not have written the letter.' (by Lionel Emil, 19/06/2018)

The negation of the **meaning** of change of state creates a duality relationship, not the negation of the perfect form!

Additional 'still' markers



Additional markers in Nêlêmwa: 'still'

- in Nêlêmwa at least two different markers can be translated as 'still' (Bril, 2016:93):
 - *baa* DUR (durative)
 - gaa persist (persistive)
- (9) Baa maaxa. DUR be.raw 'It's still raw.' (Bril, 2016:94)
- (10) Xam **gaa** pânaat.

ASS PERSIST stone 'It is **still** stone.' (as a persistent state of things, but a different one is expected) (Bril, 2016:93)

Additional markers in Nêlêmwa: 'still'

- (11) Gaa nabak=du kua-n.
 PERSIST sink=down foot-POSS.3SG
 'Her feet keep on sinking down.' (Bril, 2016:93)
- (12) Kio < i baa mago gat >.
 NEG 3SG DUR sleep CONT 'He's not/no longer sleeping.' (Bril, 2016:94)
- (13) Baa < kio i mago gat >. DUR NEG 3SG sleep CONT 'He's still not asleep.' (Bril, 2016:94)

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The meaning of 'still' for *gaa* is only a translational equivalent in some contexts. Its meaning does not interact with duality!

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- languages can have additional particles that might resemble 'already' or 'still', but they might have different semantics altogether, outside of the duality system
 - the existence of additional markers does not invalidate the duality hypothesis
- Löbner's (1989) proposal for duality between 'already' and 'still' can explain different relationships between aspectual particles in Oceanic languages

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Krifka (2000): focus-sensitive particles

- (14) Lydia is 3 months old. (Krifka, 2000:405)
 Alternatives considered: 1 2 3 4 5 months old
 Alternatives asserted: 3 months old
- (15) Lydia is already 3 months old. (Krifka, 2000:405)
 Alternatives considered: 1 2 3 months old
 Alternatives asserted: 3 months old
- (16) Lydia is still 3 months old. (Krifka, 2000:405)
 Alternatives considered: 3 4 5 months old
 Alternatives asserted: 3 months old

Additional markers in Nêlêmwa: gat

- glossed as continuous, it has the meaning of contradictory expectation (Bril, 2016)
- (17) Fwâ kio i uya (gat).
 yet NEG 3SG arrive CONT
 'He (still) hasn't arrived yet.' [gat rendered here as 'still' suggests that he should be here.] (Bril, 2016:98)
- (18) **Baa** kia-e **gat**. DUR not.be.there-3sG CONT 'He's **still** not there.' [but he should be] (Bril, 2016:94)

Unua: 'not yet'

- (19) Xamru mur-seb-rex rrobb? I-jxe rrobb.
 2DU 2DU-NEG-marry still 3sG-not still
 'Aren't you married yet? Not yet' [SS.04,05] (Pearce, 2015:334)
- (20) Naus ngo b-i-mirr ju go i-jxe tin.
 papaya the IRR-3sG already FOC 3sG-not very
 'The papaya will not be very ripe yet.' (Pearce, 2015:352)

Unua: 'not anymore'

- (21) no-berax ju be-re mur-b-ngar ien.
 1sG-not.want already IRR-1sG-feel 2DU-IRR-cry here
 'I don't want to hear you crying here anymore.' (Pearce, 2015:282)
- (22) Go mokiki i-ter, i-seb-ngar rre mu rre and boy 3sG-strong 3sG-NEG-cry NEG again NEG 'And the boy grew strong, he didn't cry anymore' (Pearce, 2015:329)
- (23) No-seb-xa mu rre. No-non, no-rex ien.
 1sg-Neg-go again Neg 1sg-stay 1sg-marry here
 'I've never been back. I live here, I married here,' (Pearce, 2015:328)
- (24) *I-vase ru-seb-matur mu rre*,
 3sg-make 3DU-NEG-sleep again NEG
 'So they didn't sleep at all,' (Pearce, 2015:328)

Additional markers in Nêlêmwa: 'not anymore'

- (25) Io ha(x)a top na mwena.
 FUT PERM rot LOC there.Dx2
 'It will just remain rotting away there.' (Bril, 2016:99)
- (26) Kio i ha(x)a mago.
 NEG 3SG PERM sleep
 'He never sleeps anymore.' [due to insomnia or disease] (Bril, 2016:100)
- (27) Xu kio mwa na âlô gat.
 PRF NEG SEQ 1SG child CONT
 'I'm no longer young.' (Bril, 2016:95)

Additional meanings: Expectations in Nafsan

- (28) (Talking about a teenager who didn't come home on time) Max CALL (YET)? (Veselinova, 2018:NQ 51)
 Max ki=pe ring ko?/ Max i=po ring? Max 3sg.PRF=PRF call or Max 3sg=PSP.REAL ring
 'Did Max call yet?' (AK1-156)
- (29) A=preg nanrik soksokien i=skei na ka=fo welu-a 1sG=make say promise 3sG=one COMP 1sG.IRR=PSP.IRR help-TR me kai=pe ta preg mau. but 1sG.PRF=PRF NEG1 make NEG2
 'I made a promise I would help him, but I haven't done it after all/in the end.' (AK1-083-01)

Structure of Nafsan

Table 1: Exemplified verbal complex in Nafsan, based on Thieberger (2006)

SBJ=	ТМА	AUX	neg1	BEN	V	PFV	neg2
rui= (3pl.prf)	pe (prf)	<i>mer</i> ('again')	ta(p)	ga (3sG)		su	mau

Subject proclitics in Nafsan

	General (realis)	Irrealis	Perfect-agreeing (perfect)
1sg	<i>a</i> =	ka=	kai=
2sg	ku=	<i>p̃a</i> =	kui=
3sg	<i>i</i> =	ke=	ki=
1du.incl	ta=	tak=	takai=, tai=
1du.excl	ra=	rak=	rakai=
2du	ra=	rak=	rakai=
3du	ra=	rak=	rakai=, rai=
1pl.incl	tu=	tuk=	tui=, tukoi=
1pl.excl	<i>u</i> =	ko=	ui=, koi=
2pl	<i>u</i> =	ko=	koi=
3pl	ru=	ruk=	rui=, rukui=

Table 2: Reanalyzed subject proclitics in Nafsan, based on Thieberger (2006)

Introduction: perfect, *already*, iamitives

- recent interest in typology in the connection between *already* and the perfect aspect (Olsson, 2013; Dahl & Wälchli, 2016)
- iamitives are a new gram proposed by Olsson (2013) that aims at describing a perfect-like category with the additional meaning of change of state
- I argue that the categories of perfect and *already* are sufficient to describe the range of meanings found in languages these categories also have semantic tools in place to describe different kinds of behavior related to their meanings:
 - aspectual coercion
 - paradigmatic blocking
 - meaning compatibility

Readings of the English perfect

- (30) a. resultative (perfect of result)
 - b. experiential (existential)
 - c. universal (perfect of persistent situation)
 - d. 'hot news' (perfect of recent past)
 - e. anteriority readings: past/future perfect



Figure 8: Representation of the present perfect (Klein, 1994)

Already

Vander Klok & Matthewson (2015) argue that, in contrast to the perfect, *already* can be identified through:

- change-of-state meaning
- presence of "earlier than expected"

Perfect and *already*



Figure 9: Semantic map of the English Perfect in blue and the English *already* in yellow (full outline: core meanings, dotted outline: perfect meanings with which it can combine)

The problem

There are two problems for the cross-linguistic validity of the perfect aspect:

- perfects in some languages lack some of the "core" functions of perfect
- perfects in some languages have additional functions (in comparison to the prototype)
- this prompted the creation of the iamitive category (Olsson, 2013; Dahl & Wälchli, 2016) that can be identified by
 - lack of experiential, universal, and anteriority functions
 - presence of an additional change-of-state meaning (*My hair is long now* vs. *My hair has been long*)

Iamitives

- (31) [Jakarta Indonesian] Kamu tidak bisa memakan-nya. Itu sudah busuk.
 2sg NEG can eat-3 it IAM rotten 'You can't eat this one. It is rotten.' (Olsson, 2013:18)
- (32) [Mandarin Chinese]
 nĭ bù néng chī zhè-ge. tā làn le
 2sg NEG can eat this-CL 3sg rotten IAM
 'You can't eat this one. It is rotten.' (Olsson, 2013:18)

Iamitives



Figure 10: Semantic map of the proposed iamitive functions (Olsson, 2013)

Perfect in Nafsan

- (33) [Experiential] Question: You MEET my sister (at any time in your life up to now)? (Dahl, 2000b:801, PQ4)
 kui=pe paatlas kore-k te-mal?
 2sG.PRF=PRF meet sister-1sG.POSS one-time 'Have you met my sister?' (AK1-115-01)
- (34) [Resultative]

Kineu kai=pe maa ntal su. 1sg 1sg.prf=prf grate taro pfv 'I have grated the taro.' (AK1-146-02, 00:02:32.335-00:02:41.410)



Perfect in Nafsan: temporal adverbs

(35) Context: A question asked at 9 o'clock a.m.: Why do you look so tired? Answer: I WAKE UP at 4 o'clock this morning (TT). (Dahl, 2000b:TMAQ 16)

**kai=pe/ a=pilo 4 oklok p̃ulp̃og.* *1sg.prF=prF 1sg=wake.up 4 o'clock morning 'I woke up at 4 o'clock this morning.' (AK1-119-01)

(36) Context: If your alarm is set for 5 a.m. (TT), but by chance you woke up at 4 a.m. (TSit).

Kai=pepilo4 oklokp̃ulp̃og.1SG.PRF=PRFwake.up4 o'clock morning'I had woken up at 4 o'clock in the morning.' (AK1-119-01)

Temporal adverbs: Storyboards

Matthewson et al. (2017) highlight this example as eliciting temporal adverb **restrictions**:



Figure 11: A: The pet rat has just died! B: He is lying, **he died yesterday**. (Matthewson, 2014)

Temporal adverbs: Storyboards

(37) *i=to* psir, ga ki=pe mat nanom su.
3SG=PROG lie 3SG 3SG.PRF=PRF die yesterday COMPL
'He is lying, he had died yesterday.' (AK1-146-04, 00:04:03.626-00:04:10.640)

Ga ki=pe mat nanom su.



Figure 12: Representation of example (37)

Perfect functions in Nafsan

Table 3: Occurrence of different functions of *pe* in 3 empirical methods (+ attested, ? unclear, - not attested, -/+ restricted to certain environments, perfect=blue, iamitive/perfect=purple, iamitive/*already*=red)

Method	Univ.	Exper.	Ant.	Result.	Adv.	CoS	Dual.	Expect.
Corpus	?	?	+	+	+	+	?	?
Storyb.	+	+	+	+	-/+	-/+	-/+	-/+
Quest.	+	+	+	+	-/+	-/+	-/+	-/+

The spread of perfect-like functions in Melanesia

Table 4: Perfect values in Nafsan and other Oceanic languages (+ attested, ? unclear, - not attested, -/+ restricted to certain environments, e.g. needing to occur with another marker)

Meanings	Nafsan pe	Toqabaqita <i>naqa</i>	Unua ju/ goj nu	Niuean <i>kua</i>	Maori <i>kua</i>
Resultative	+	+	+	+	+
Anteriority	+	+	+	+	+
Experiential	+	+	+	+	+
Universal	+	+	+	-	+
Hot news	-	-	-	+	+
Change of state	+	+	+	+	+
Expectedness	-/+	-	-/+	-	?
Duality	-/+	-/+	-/+	?	?
Temp. adverb	-/+	+/?	?	-	?

The spread of perfect-like functions in Melanesia

Table 5: Perfect values in Nafsan and other Oceanic languages (+ attested, ? unclear, - not attested, -/+ restricted to certain environments, e.g. needing to occur with another marker)

Meanings	Nafsan pe	Toqabaqita <i>naqa</i>	Unua ju/ goj nu	Niuean <i>kua</i>	Maori <i>kua</i>
Resultative	+	+	+	+	+
Anteriority	+	+	+	+	+
Experiential	+	+	+	+	+
Universal	+	+	+	-	+
Hot news	-	-	-	+	+
Change of state	+	+	+	+	+
Expectedness	-/+	-	-/+	-	?
Duality	-/+	-/+	-/+	?	?
Temp. adverb	-/+	+/?	?	-	?

Change of state in Nafsan

- (38) Malfane nal-u-k ki=pe taar. now hair-v-1sG.DP 3sG.PRF=PRF white 'My hair is blond now.' (AK1-146-03, 00:03:31.991-00:03:33.853)
- (39) ku=lek faat ne faat nen i=top
 2sg=look stone this stone that 3sg=big
 'You look at that stone. That stone is big.' (015.033)
 - Koontz-Garboden (2007) notes the meaning of change of state easily arises with the perfect in languages without any change-of-state morphology
 - property concepts denoting states can be aspectually coerced into changes of states in languages which do not distinguish adjectives from verbs in the predicate position (Koontz-Garboden, 2005)
Change of state in Nafsan

- (40) Context: all the kids in the classroom are misbehaving: *Teplaksok i=maet pelpel.* teacher 3sG=angry quickly 'The teacher got angry quickly.' (Lionel Emil, 28/11/2018)
- (41) teplaksok **ki=pe** maet. teacher 3sg.prF=prF angry 'The teacher got angry.' (Lionel Emil, 28/11/2018)



Blocking principles



Figure 14: Semantic map of the perfect in red for Nafsan, Toqabaqita, and Unua and the markers expressing hot news in blue

Blocking principles: Nafsan

 (42) (Talking about a teenager who didn't come home on time) Max JUST COME (Veselinova, 2018:NQ 53)
 Max i=po mai kia. Max 3sg=PSP.REAL come DET 'Max has just come.' (AK1-156)

Maori



Figure 15: Semantic map of the perfect kua in Maori

Meaning compatibility in Nafsan



Figure 16: Semantic map of the Nafsan Perfect in red and the perfective *su* in dashed yellow outline signalizing the perfect functions with which it combines

Meaning compatibility in Nafsan

- (43) Kineu kai=pe pag-ki ntaf i=skei su.
 1sg 1sg.PRF=PRF climb-TR mountain 3sg=one PFV
 'I have climbed a mountain.' (AK1-147-04, 00:00:57.590-00:01:01.796)
- (44) Kineu kai=pe maa ntal su.
 1sg 1sg.PRF=PRF grate taro PFV
 'I have grated the taro.' (AK1-146-02, 00:02:32.335-00:02:41.410)

Perfect: Conclusion

- based on the data from Nafsan and other Oceanic languages I argued that iamitives do not have an operational semantic definition
- aspectual coercion in languages with underspecified verbal aspect can explain the presence of change of state
- paradigmatic blocking can explain the lack of some perfect functions
- compatibility in meaning can explain certain overlaps in distribution between perfect and *already*

Introduction

Is realis/irrealis a meaningful cross-linguistic category? (Bybee, 1998; de Haan, 2012; Cristofaro, 2012)

- I take up the idea by Cristofaro (2012) that subject marking can be semantically and/or morphologically distinguished from the realis/irrealis category even when it is classified as "portmanteau"
- I argue that one of the two categories (realis or irrealis) is not necessarily semantically expressed by the subject markers
- the TMA interpretations of subject markers underspecified for mood are derived from a **competition** with true portmanteau subject markers, which are specified for mood

Realis/irrealis: a definition



Figure 17: Braching-times model by von Prince (2018b); Krifka (2016), based on Thomason (1984)

Realis/irrealis debate

Problematic categories in typology and description:

- Irrealis
 - "polifunctionality" of modal markers: irrealis is often interrelated with other TAM categories, such as **future** tense (see Velupillai, 2016)
- 2 Realis
 - problematic classifications: "realis" is often found in modal contexts, such as future (Chafe, 1995), directives (Mauri & Sansò, 2012), or **counterfactuals**

Problematic portmanteau markers: Wogeo

-

Table 6: Subject markers in Wogeo (Exter, 2012:181), in their forms as they would appear with the verb *lako* 'go'

	Realis	Irrealis	
1sg	0-	g 0-	
2sg	go-, ko-	g0-	
3sg	e-	de-	
1du	to-	to g-	
2du	kad-		
3du	do-	do g -	
1pc	to-	to g-	
2pc	koi	to-	
3pc	doto-		
1pl	ta-		
2pl	ka-		
3pl	da-		

Problematic portmanteau markers: Wogeo

- (45) a. *m-o-lako* FUT-1sG.REAL-go
 b. *mo-go-lako* FUT-1sG.IRR-go 'I will/can/may go.' (Exter, 2012:182)
- (46) s-e-vá iko sa-k-lako, katé
 CF-3SG.REAL-happen you CF-2SG.REAL-go thus
 mo-la-moet
 FUT.2SG.REAL-INCH-disappear
 'If you had gone, you would have been lost.' (Exter, 2012:186)

Nafsan subject markers

	General (realis)	Irrealis	Perfect-agreeing
1sg	<i>a</i> =	ka =	ka i =
2sg	ku=	<i>p̃a=</i>	ku i =
3sg	<i>i</i> =	ke =	k i =
1du (incl)	ta=	ta k =	ta kai =
1du (excl)	ra=	ra k =	ra kai =
2du	ra=	ra k =	ra kai =
3du	ra=	ra k =	ra kai =, ra i =
1pl (incl)	tu=	tu k =	tu i =, tu koi =
1pl (excl)	<i>u</i> =	k o=	u i =, ko i =
2pl	<i>u</i> =	k o=	ko i =
3pl	ru=	ru k =	ru i =, ru kui =

Table 7: Subject proclitics in Nafsan by Thieberger (2006:150)

Realis/irrealis in Nafsan

- (47) Komam rak=tap fam mau me rak=to. 1PL.EXCL 1DU.IRR=NEG eat.IRR NEG2 but 1DU.IRR=stay We won't eat, but we'll stay. (Thieberger, 2006:164)
- (48) Nanom pog, u=mai praktis.
 yesterday night 1PL.EXCL=come practice
 Yesterday evening we came to practice. (Thieberger, 2006:151)



Distribution of subject proclitics in Nafsan



Figure 19: Co-occurrences of subject proclitics and TMA markers in two Nafsan corpora

General (realis) in Nafsan

- (49) Malnen pa=ler, a=pe mtir natus su.
 when 2sg.IRR=return 1sg=PRF write letter PFV
 'When you come back, I will have finished writing the letter.'
 (AK1-083-01, based on Dahl 2000a:FQ 17)
- (50) If it BE COLD tomorrow, we STAY at home. (Dahl, 2000a:FQ 67) Naor i=fla tok mlanr matol, ka=fo tok esuñ. place 3sg=might stay cold tomorrow 1sg.IRR=PSP.IRR stay house 'If it's cold tomorrow, I will stay at home.' (AK1-103-01)

Conditional clauses

Table 8: Storyboard results for conditional clauses

Conditional type	Gen/irr ratio
Past counterfactual	general 31%, irrealis 69%
Present counterfactual	general 100%
Future counterfactual	general 22%, irrealis 78%
Present possibility	general 100%
Future possibility	general 25%, irrealis 75%

Interchangeability of general and irrealis proclitics

- (51) a=f mer mes matol, go nfag nen kin a=tai
 1sG=COND CF play tomorrow and sore REL COMP 1SG.REAL=cut
 nakn-i-k ke=fo mer makot
 finger-v-1sG.POSS 3SG.IRR=PSP.IRR again break
 'If I played tomorrow, the sore I cut on my finger would bleed again.'
 (AK1-098-01, 00:03:39.185-00:03:57.063)
- (52) ka=f mer mes volibol matol, nakn-i-k
 1SG.IRR=COND CF play volleyball tomorrow finger-v-1SG.POSS ke=fo mra
 3SG.IRR=PSP.IRR bleed
 'If I played volleyball tomorrow, my finger would bleed.' (AK1-004-01,

00:03:27.921-00:03:33.286)

Frame from the story "Competitions" (von Prince, 2018a)



Phonological restrictions

	General	Irrealis
1sg	a=f	ka=f
2sg	ku=f	<i>p̃a=f</i>
3sg	i=f	ke=f
1du (incl)	ta=f	*tak=f
1du (excl)	ra=f	*rak=f
2du	ra=f	*rak=f
3du	ra=f	*rak=f
1pl (incl)	tu=f	*tuk=f
1pl (excl)	u=f	ko=f
2pl	u=f	ko=f
3pl	ru=f	*ruk=f

Table 9: Combinations of f with proclitics

Interchangeability of general and irrealis proclitics

- (53) [Context: Why did you bring a hat yesterday?] Nlaken i=sa kin nlag i=fuu. because 3sg=bad COMP wind 3sg=blow 'It would be bad if wind had blown.' (AK1-039-01, 00:05:33.556-00:05:35.681)
- (54) [Context: the same as (53)] *I=sa kin nlag ke=sisi.*3sg=bad comp wind 3sg.IRR=blow
 'It would be bad if wind had blown.' (AK1-018-01, 00:13:13.680-00:13:19.216)





The mechanism of deriving realis meanings

How can we account for the appearance of "realis" in non-actual contexts?

- I propose that "realis" in Nafsan is only a person and number marking semantically unmarked for TMA values.
- Realis and irrealis are interchangeable in non-actual contexts with other modal markers, such as the conditional *f* or counterfactual *mer* in Nafsan. Thus, these elements determine the modal interpretations.
- the modal expressions can either agree with the irrealis subject markers in modal features, or simply attach to the unmarked subject markers

The mechanism of deriving realis meanings

If the "realis" paradigm is underspecified for TMA, how can we explain that the unmarked subject marking in the absence of modal marking has realis interpretations?

- I argue that the realis meaning in sentences with past/present reference is derived pragmatically by contrasting the underspecified subject markers with the specified irrealis subject marking category.
- (55) Maximize Presupposition: Make your contribution presuppose as much as possible! (Heim, 1991)
- (56) [There are black clouds in the sky.] It RAIN in the evening. (Dahl, 2000a:FQ 46)
 Us i=fla wo kotfan./us *i=wo kotfan.

rain 3sG=might rain evening rain 3sG=rain evening 'It might rain in the evening.' (AK1-086-01)

Irrealis



Figure 21: The domain of meaning expressed by irrealis proclitics in Nafsan)

Modal flavors in Nafsan

Table 10: Occurrences of auxiliary and proclitic combinations in storyboards

Meaning	TMA/Auxiliary	Irrealis procl.	General procl.
Circumstantial	tae	0	9
possibility	kano	2	6
Ability	kano	1	7
	tae	6 (100%)	0
	kano	5 (63%)	3 (37%)
Epistemic	mas	2	0
possibility	lakor	4	7
	Irrealis with <i>fo</i>	5	
Deontic	tae	5 (83%)	1 (16%)
	kano	14 (61%)	9 (39%)
	mas	5	0
	Irrealis (other markers)	8	

Modal flavors in Nafsan

(57) [Context: Mary's friends come and ask her to go play with them, but her mom ordered her to wash the dishes, so she says:, from TFS (2011a)]

Kineu ka=fokano,ka=feiwaskiplet.1sg1sg.IRR=PSP.IRR cannot1sg.IRR=first.IRRwash:BIPREPplate:BI'I can't go, I have to wash the dishes first.'(20170816-AK-094,00:00:57.995-00:01:07.171)

(58) [Context: Mary's friends come and ask her to go play with them, but she broke her leg, so she says:, from TFS (2011b)]

Kineu **a=kano**, Mary i=tl-i-ø, nlaken a=pakot 1sg 1sg=cannot Mary 3sg=say-ts-3sg.obj because 1sg=break *natu-o-k*. leg-v-1sg.DP

'I can't, says Mary, because I broke my leg.' (20170731-AK-016, 00:01:04.545- 00:01:17.645)

56/63

Ma*v*ea

(59) **imte ka**-v **ka**-ṽa ṽalu-na ro me [...] m̃auri rarua if.CF 1SG.IRR-say 1SG.IRR-go to-3SG.POSS then FUT life 3DU *i-isaṽai*

3sg.irr-how

'Suppose I had stayed with him [...] how would our life have been?" (VG20171047.056-058, von Prince et al. 2019:197)

(60) *ka-mo-lo-to tuan me m̃auri-ku i-pal sa* 1sg.IRR-COND-IPFV-stay with FUT life-1sg.POSS 3sg.IRR-like what 'if I had stayed with Peri how would my life have been?' (VG20171060.031-032, von Prince et al. 2019:198)

Mavea and Nafsan



Figure 22: The irrealis domain in Nafsan and Mavea, solid outline: irrealis subject proclitics; dashed outline: optional counterfactual *mer* and *imte*, from von Prince et al. (2019:198)

North Ambrym

(61) Jon, bone fo ktu, lo mwen-amro teere nyer e-ve John time 2SG.IRR take then GEN.CL-2DU.POSS child PL POT-COP.IRR lol.

plenty

'If you marry John, you will have many children.' (ib1-fortune-na.35, von Prince et al. 2019:198)

- (62) He e-na-ø plei, lo ge rrang e-b gurr mol mon if POT-1SG-IRR play then SUB blood POT-IRR.3SG flow back again 'If I played then the blood would flow again.' (ib1-lafet-na.27, von Prince et al. 2019:198)
- (63) ō to yene Adam lo mwena-mrō mane te lam.
 2sg CF marry Adam then POSS.CL-2DU.POSS money NREC.PST.3sg big 'If you had married Adam, you two would have been rich.' (at1-fortune-na.24, von Prince et al. 2019:198)

North Ambrym



Figure 23: The irrealis domain in North Ambrym, Solid outline: irrealis; dashed outline: counterfactual (past/present); dotted outline: non-recent past, from von Prince et al. (2019:200)

Irrealis domains



Figure 24: Semantic areas of past counterfactual PST.CF, present counterfactual PRS.CF, future counterfactual FUT.CF, and possible future meaning FUT.POSS, based on von Prince et al. (2019)

Irrealis and future



Figure 25: The domain of meaning expressed by future tense on the left and irrealis mood on the right

Conclusion

The study of perfect and realis/irrealis in Nafsan and comparison with other Oceanic languages made contributions to the semantics and typology of these categories:

- there are semantic explanations for additional functions or the lack of functions associated with the perfect
- it is not necessary to postulate the iamitive category
- the realis/irrealis distinction is a valid linguistic category whose debated features can be resolved by:
 - semantic underspecification
 - inherent meanings of irrealis related to other categories, e.g. future