The future is what the universe wants

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From directives to future assertions in three easy steps

(1) \textit{ko=p swave wotop en-tak!}
\hspace{1cm}2SG=POT throw breadfruit DEF-PROX
\hspace{1cm}“Throw this breadfruit down!” (1214)

(2) \textit{nye kyun na=m ka [na=p sikya nya wa maga]}
\hspace{1cm}1S just 1S-REAL want 1S=POT touch 3D POT be.fast
\hspace{1cm}“Only I, I wanted to reach them quickly.” (0103)

(3) \textit{ki=t me a-tak [ka na w=ane kimim]}
\hspace{1cm}2P=DIST come LOC.DEM-PROX ASR 1S POT=eat 2P
\hspace{1cm}“…if you come here, I will eat you!” (3135)
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\{h|\exists i \in h : i \in R, i_j < i.\phi(i)\}

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Structure of the talk

1. Background
2. Directives in Daakaka
3. Directives and futures
4. To-Do-List vs. Modal assertion
5. Futures and embedded clauses
6. Outlook
Daakaka

- Daakaka is an Oceanic language of Vanuatu, spoken by about one thousand people on the island of Ambrym.
- The basic sentence structure is SVO.
- The core of a finite sentence consists of a subject pronoun, a TAM clitic and the verb:

\[(4) \quad na=m \quad vyan \quad etes\]
\[1SG=REAL \quad go \quad at\text{-}sea\]

a. “I went to the sea.”

b. “I am going to the sea.”
Daakaka: the TAMP system

Table: Structure of the verbal complex in Daakaka

<table>
<thead>
<tr>
<th>SBJ.AGR</th>
<th>(=)TAM</th>
<th>(AUX)</th>
<th>(REDUP-)</th>
<th>Verb</th>
<th>(-RES)</th>
<th>(=TR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>na, ...</td>
<td>=m, ...</td>
<td>du,pwer</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>=ne</td>
</tr>
</tbody>
</table>

Table: List of TMA markers in Daakaka

<table>
<thead>
<tr>
<th></th>
<th>enclitic</th>
<th>proclitic</th>
<th>monosyllabic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pos. Realis</td>
<td>=m</td>
<td>mw=</td>
<td>mwe/mV</td>
</tr>
<tr>
<td>Neg. Realis</td>
<td>=p</td>
<td>w=</td>
<td>to</td>
</tr>
<tr>
<td>Pos. Potential</td>
<td>=p</td>
<td>w=</td>
<td>wV</td>
</tr>
<tr>
<td>Neg. Potential</td>
<td>=n</td>
<td>w=</td>
<td>nV</td>
</tr>
<tr>
<td>Distal</td>
<td>=t</td>
<td>t=</td>
<td>tV</td>
</tr>
<tr>
<td>Open Polarity</td>
<td></td>
<td></td>
<td>doo</td>
</tr>
<tr>
<td>Change of State</td>
<td></td>
<td></td>
<td>bwet</td>
</tr>
</tbody>
</table>
Daakaka imperatives

• As in many other languages, bare verb roots can be used in Daakaka to utter an imperative:

(5)  \textit{Me!}
    come
   “Come!”

• The more verbose directives with the potential mood marker also require a subject-agreement marker:

(6)  \textit{ko=p}  \textit{swave!}
    2SG=POT throw
   “Throw it down!” (1218)
Potential mood prohibitives

(7) *saka*  
*ki=n*  
*tiye nye*  
MOD.NEG 2P=NEG.POT kill 1s  
“don’t kill me” (3183)

(8) *ka*  
*na=n*  
*me*  
*kyun, s-ok*  
*gyesan mwe pwer.*  
ASR 1S=NEG.POT come just  
CL3-1S.Poss work  
REAL stay  
“I should have come, I had work to do.”

(9) *ko=n*  
*peten!*  
2S=NEG.POT true  
“you have to keep your word” (in a story where the promise will be broken)
Potential mood directives

- The subject of a directive in potential mood does not have to refer to a second person:

\[(10)\] Te mwe kye ge-kerase ka-ka: ‘E, ko=p me disc real call redup-lie redup-say hey 2s=pot come da=p vyan’
1D.IN=pot go
“So he called him and said to him, lying: ‘Hey, come, let’s go’”
(6164)

\[(11)\] eye we me
knife pot come
“The knife shall come / give me the knife.”

- The directive is then still addressed to a second person.

- The best way to translate these directives into English might involve “let” (“let’s go”, “let the knife come”).
“By ‘imperative’ we mean a verb form that is typically used to convey directive force, and is not typically used in subordinate roles (distinct from infinitives and subjunctives)” (von Fintel & Iatridou, submitted)

– there is probably a lesson here about the difficulty of applying labels cross-linguistically in general (cf. Haspelmath, 2012), and specifically when it comes to infinitives and subjunctives (Landau, 2004; Nikolaeva, 2007; Quer, 2009).
Potential mood in future assertions

Assertions are structurally more complex than directives:

(12) ‘\(Ki=p\) du \(a\)-tak, [\(na=p\) kueli vyan liye ok \(bosi.\)]’
\(2p=POT\) stay \(LOC.DEM-PROX\) \(1s=POT\) return go take \(1s.PASS\) chisel
“You stay here, I will go back (let me go back) and take my chisel” (5118)

(13) (\(ka\)) nye \(ka\) \(na=p\) \(ka\)
\(ASR\) \(1s\) \(ASR\) \(1s=POT\) fly
“I will fly away” (4994)

(14) yaapu \(ka\) \(we\) seling \(me\)
god \(ASR\) \(POT\) descend come
“[…\] God will come down to us” (0369)
(15) \( yaapu \textit{ka we seling me} \)
god ASR POT descend come
“[...] God will come down to us” (0369)

(16) \( \textit{eye we me} \)
knife POT come
“The knife shall come / give me the knife.”
(15) \[ \text{yaapu } \textit{ka we seling me} \]
\[ \text{god ASR POT descend come} \]
“[...] God will come down to us” (0369)

\[
\forall h : h \in R_H. \exists i \in h, i \in R_I, i_j < i. \phi(i)
\]

(16) \[ \textit{eye we me} \]
\[ \text{knife POT come} \]
“The knife shall come / give me the knife.”

Directive = assertion - \( x \)
(15)  \(yaapu \textit{ka we seling me}\)

\[
\forall h : h \in R_H. \exists i \in h, i \in R_I, i_j < i.\phi(i)
\]

“[...] God will come down to us” (0369)

(16)  \(eye \textit{ we me}\)

\[
\lambda h : h \in R_H. \exists i \in h, i \in R_I, i_j < i.\phi(i)
\]

“The knife shall come / give me the knife.”
In contrast to previous work (Thomason & Gupta, 1980; Tedeschi, 1981; Placek & Müller, 2007; Ippolito, 2003, 2013), I assume that quantification over branches/histories is not restricted to those branches that pass through the actual present $i_c$. 

\[ \forall h : h \in R_H. \exists i \in h, i \in R_I, i_j < i. \phi(i) \]
If the assumptions made so far are correct, then which side does the Daakaka data come down on in the debate about the nature of imperatives?

I will argue that it is compatible with more than one view, but I favor the to-do-list view.
Adding sets of histories to to-do-lists

(cf. Portner, 2005, 2007)
Adding sets of histories to to-do-lists

\[ \langle s, t \rangle \]

\[ \langle s, \langle e, t \rangle \rangle, \langle \langle s, t \rangle, t \rangle \]

Common Ground

To-Do List

(cf. Portner, 2005, 2007)
Consequences of a to-do-list approach

• How are the types of discourse objects restricted?
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- How language-specific are the structures of to-do-lists and the types they can accommodate?
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- How are the common ground and the to-do list synchronized (Condoravdi & Lauer, 2012)?
Consequences of a to-do-list approach

• How are the types of discourse objects restricted?
• How language-specific are the structures of to-do-lists and the types they can accommodate?
• How are the common ground and the to-do list synchronized (Condoravdi & Lauer, 2012)?
• ...

such that IMP implies that the speaker has a preference for histories in $H$,
and where the speaker has to believe that some continuations of the actual history $h_c$ are in $H$ and some are not, IMP involves a preference-related ordering source, ...(Kaufmann, 2012; Condoravdi & Lauer, 2012)
• What restricts the range of meanings a mood head can have?
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• We might expect a much wider range of variation between languages in terms of their speech acts than we actually see.
Problems for an assertion-based approach

• What restricts the range of meanings a mood head can have?
• We might expect a much wider range of variation between languages in terms of their speech acts than we actually see.
• The difference in complexity between directives and future assertions, which appears to be consistent cross-linguistically (if there is a difference in complexity, the directive is usually the less complex category), would not be accounted for.
• Judging from their forms, potential mood directives in Daakaka are just like future assertions minus $x$. 
Interim conclusions

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- I suggested that $x$ was a universal quantifier over histories and that potential mood directives were just sets of histories.
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- Judging from their forms, potential mood directives in Daakaka are just like future assertions minus $x$.
- I suggested that $x$ was a universal quantifier over histories and that potential mood directives were just sets of histories.
- I have argued that this assumption is compatible with different views on imperatives but that a to-do-list approach was preferable for architectural reasons.
(17) *tomo mwe ka nge wuk ka we vyan nii*
rat REAL say 3s already MOD POT go hide
“Rat said he wanted to hide first.” (1454)

(18) *mwe ka we pwer kuon*
REAL want POT sleep just
“He just wanted to sleep” (1614)

(19) *nye kyun na=m ka na=p sikya nya wa maga*
1s just 1s=REAL want 1s=POT touch 3D POT be.fast
“Only I, I wanted to reach them quickly.” (0103)
The assertion marker *ka* can be preceded by a realis marker. However, the realis marker only ever precedes a predicate.

(20) \[ \text{te timy-an t-en yas-en ma ka} \]
Disc father.of-3s.poss and-3s.poss mother.of-3s.poss REAL want
ye=p tiye tyu swa
3D=POT kill chicken one
"the father and the mother will kill a chicken." (1643)

(21) \[ \text{te pyaavep kevene ngok a vyanten ke-kevene ma ka} \]
Disc afternoon every 2s and man REDUP-every REAL want
ki=p du nyur-nyur-ane nye bili na ka yaa te vyan
2p=POT stay REDUP-think-trans 1s time COMP MOD sun DIST go
every afternoon you and every man you will think of me when the sun goes down (2548)
Whose wishes determine the future?

(22) te pyaavep kevene ngok a vyanten ke-kevene ma ka
disc afternoon every 2s and man REDUP-every REAL want
ki=p du nyur-nyur-ane nye bili na ka yaa te vyan
2P=POT stay REDUP-think-TRANS 1s time COMP MOD sun DIST go
every afternoon you and every man you will think of me when the
sun goes down (2548)

∀h' : h' ∈ WANTx,i1, i1 < ic.h' ∈ \{ h|∃i ∈ h : i ∈ RI, i1 < i.\phi(i)\}
Expletive subjects in Daakaka: otherwise absent

(23)  
*[or mwe myaek], mwe pwer te ma ka na w=esi apyang place REAL be.night REAL stay DISC REAL say 1s POT=see fire en-te bwe mwe me ma ge=vi DEF-MEDIAL CONT REAL come REAL like=what
“It was night, he stayed and said: ‘I want to see how this fire is coming [about].’” (3594)

(24)  
ko=m ongane ma ge myane uli-sye te pwer, ko=m 2s=REAL hear REAL be.like with skin-3s.poss DIST stay 2s=REAL doko-ne mwe yas na mwe yas pull-TRANS REAL strong COMP REAL strong
“it feels as if it had a skin, you pull it, it’s very strong” (6011)
- Potential mood directive:
  \[ \lambda h : h \in R_H. \exists i \in h, i \in R_I, i_j < i.\phi(i) \]
- *ka* “want” with complement clause:
  \[ \forall h' : h' \in \text{WANT}_{a,i_1}, i_1 < i_c. h' \in \{ h | \exists i \in h : i \in R_I, i_1 < i.\phi(i) \} \]
- Future assertion:
  \[ \forall h : h \in R_H. \exists i \in h, i \in R_I, i_j < i.\phi(i) \]
there is also a complementizer/ serial verb \( ka \), which is probably not a universal quantifier over histories, because it is essential in statements about possibilities:

(25) \( ko=m \ kuowilye \ ka \ ko=p \ kuo \ a-te \)

2S=REAL know COMP 2S=POT run LOC.DEM-MEDIAL

“You can go there” (0111)

(26) \( ka \ \ldots kuli \ vis \ en-te \ wa \ wese \ ka \ w=i \)

ASR edible.part.of weapon DEF-MEDIAL POT be.enough COMP POT-

lim

cop five

“there might be five bullets” (6361)


Haspelmath, Martin. 2012. How to compare major word-classes across the world’s languages. Pages 109–130 of: *Ucla working papers in linguistics, theories of everything*, vol. 16. UCLA.


