1.0 Introduction

- Sentences with the particle *daats’i* seem to have illocutionary and propositional variability, on the basis of the translations offered by consultants and Young and Morgan (1987).

  o Apparently interrogative (a) and non-interrogative (b) (statements of wondering, uncertainty statements, and modal statements).

(1) Nahałtin daats’í
   it.is.raining DAATS’ì
   a. ‘Is it raining?’
   b. ‘I wonder if it’s raining.’
      ‘Maybe it’s raining, or maybe not.’
      ‘I don’t know if it’s raining or not.’
      ‘It might be raining.’

- Constructions similar to (1) reported in many languages: St’át’imcs (Lillooet Salish) and Gitksan (Tsimshianic) (Littell et al. 2010, Matthewson 2010); Tzeltal (Mayan) (Shklovsky 2011); German (Truckenbrodt 2006); Greek (Rouchota 1993); Japanese (Matsugu 2005), *inter alia*.

- Central Question: What is the source – and status – of the different interpretations in (1)?

  o First possibility: Perhaps each of the different translations in (1) maps onto different structures.

    ▪ While they look string identical, the structures associated with (a) vs. (b)-type meanings are fundamentally distinct (see AnderBois 2010 on disambiguation between interrogatives and questions).

    ▪ But: No evidence that different translations are linked to prosodic or other structural differences. Furthermore, speakers can provide both (a) and (b)-type translations for the same sentence (keeping context and prosody constant).

  ⇒ Second possibility: The meaning of *daats’i* (1) is constant and occupies semantic ground held in common (if only approximately) by the different English translations.

    ▪ The variation in speaker translations reflects consultants’ attempt to translate a Navajo construction without an exact English counterpart.

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1 I am very grateful to Navajo consultants Ellavina Perkins, Louise Kerley, Leroy Morgan, Louise Ramone, and Fern Seaton. Work reported here was conducted at the 2011 Navajo Language Academy and in subsequent interviews. Research funded by a National Science Foundation Graduate Research Fellowship. This work has benefitted from discussion with Angelika Kratzer, Seth Cable, Henry Davis, Kai von Fintel, Judith Tonhauser, and audiences at the SSILA 2012 poster session in Portland, Oregon. Any remaining errors are my own.
Roadmap

§2: Comparison with modals
§3: Comparison with interrogatives
§4: Daats’i as an alternatives generator
§5: Conclusions and future directions

Note on Methodology

Interviews were conducted using truth/felicity judgment tasks (Matthewson 2004). Speakers were presented with detailed scenarios (presented in written and oral form) and asked to translate English sentences paired with each scenario. Speakers were also asked to judge the goodness of constructed Navajo sentences within each scenario.

2.0 Comparison with Modals

- Willie (1996) classifies daats’i as a modal that expresses a fairly weak notion of probability. We can take this as our null hypothesis. I assume the following semantics for possibility modals (Kratzer 1981, von Fintel and Heim 2010).

\[
[[\text{might}]]^{g,w} = \lambda p. \exists w' \in \text{MAX}_{g(w)}(\cap f(w)) \rightarrow p(w') = 1
\]

- I will assume that modals, unlike illocutionary act operators, operate within the propositional dimension.

  - Modals are infelicitous where the prejacent is known to be true or false. Illocutionary act operators are not necessarily infelicitous (Faller 2002). See (3).


- I will compare daats’i both with English weak modal might and with an element that I hypothesize to be an epistemic modal in Navajo, shįį. Shįį passes both of the tests for presence in the propositional dimension:

(3)  
\begin{enumerate}
  \item Context: You look outside and see that it is raining. You say:
  
  # Nahałtín daats’í / shįį
  
  it.is.raining DAATS’Í MODAL

  \item Context: You look outside and see that the sun is shining.
  
  # Nahałtín daats’í / shįį
  
  it.is.raining DAATS’Í MODAL
\end{enumerate}

(4) Context: Your friend Mary is complaining about the dogs that her neighbor has in front of his house. Every day, the dogs run after her, snapping like they’re going to bite her. Mary [íęęčąą’į shįį shidoolhash ] nízin.

Mary dog MODAL they.will.bite.her she.thinks

‘Mary thinks that the dogs will probably bite her.’
Aside on shįį

The force of shįį appears to be contextually determined (Rullmann et al. 2008). Shįį is an epistemic modal compatible with varying degrees of certainty that $p$:

(5) a. Context: You work indoors in a windowless office. You see people walking in with wet clothing and dripping umbrellas. You say:
   Tl’oodi  shįį  nahałtin
   outside  modal  it.is.raining
   ‘It must be raining.’

   b. Context: You look at tomorrow’s forecast. There is a 30% chance of rain. You say:
   Nahoodoolįįl  shįį
   it.will.rain  modal
   ‘There’s a possibility it’s going to rain tomorrow.’

2.1 Only daats’i can form embedded questions

- Both daats’i and shįį can be embedded beneath clause-selecting predicates.

  o Following diagnostics summarized in Matthewson et al. (2004), this suggests that both contribute to the propositional, rather than illocutionary, content of an utterance

- However, the two particles produce different semantic results when they are embedded.

- Daats’i is a primary mechanism in Navajo of forming embedded (non-wh) questions beneath clause-embedding predicates.

  o nizin is a general mental attitude predicate; it is variably translated as think (when it takes an embedded proposition) and wonder (when it takes an embedded question).

(6) Context: Your friend Mary is complaining about the dogs that her neighbor has in front of his house.
   Mary  łéé cháq’i  daats’i  shidoolhash  nizin.
   Mary  dog  daats’i  they.will.bite.her  she.thinks
   ‘Mary wonders if the dogs will bite her.’
   Comment: “It’s best if she doesn’t know [if they’ll bite her] yet. It’s just a possibility.”

- Without daats’i, the embedded question meaning does not arise:

(7) Context: Your friend Mary is complaining about the dogs that her neighbor has in front of his house. Every day, the dogs run after her, snapping like they’re going to bite her.
   Mary  łéé cháq’i  shįį  shidoolhash  nizin.
   Mary  dog  modal  they.will.bite.her  she.thinks
   ‘Mary thinks that the dogs will probably bite her.’
   Comment: “Maybe it’s happened before, so she has evidence it might happen again.”
The same comparison can be drawn between *daats’í* and *might*, which does not give rise to an embedded question interpretation.

- Sentence (8) is infelicitous given a context requiring an embedded question meaning.²

(8) Context: You don’t know if your father ate bread or not. You weren’t there. But Mary was there with your dad when he ate and she saw what he ate. #Mary knows that my father might have eaten bread…

2.2 **Only *daats’í* is felicitous where the context biases ¬p**

- *Daats’í* can be used when context biases ¬p (a). *Shįį* cannot be (b):

(9) Context: You went to school before your sister Mary. She was still in bed when you left. You know she had a stomachache this morning.

a. Mary bibid diniih. ‘Ólt’a’góó *daats’í* doogááł.
   Mary her.stomach it.hurts school-to *DAATS’Í* she.will.go
   ‘Mary has a stomachache. I wonder if she’ll go to school…maybe she will go to school, or not.’

b. # Mary bibid diniih. ‘Ólt’a’góó *shįį* doogááł.
   Mary her.stomach it.hurts school-to MODAL she.will.go
   ‘Mary has a stomachache. She’ll probably go to school.’
   Comment: “Sounds more positive that Mary will go to school. Sounds weird unless you have ‘áko ndi’ (‘but’) before the second sentence.”

- Again, the same contrast exists in English. Unlike *daats’í*, English *might* is not possible where the context biases ¬p.

  - Negating the prejacent improves the utterance (10b), suggesting that polarity of the prejacent is important: *p* and ¬*p* are not judged to be likely to comparable degrees.

(10) a. # Mary has a stomachache. She might go to school.
   b. Mary has a stomachache. She might not go to school.

2.4 **Section summary**

- *Daats’í* does not seem to be creating the type of semantic object usually taken to be produced by a modal.

- The type of semantic object seems closer to the semantic object created by interrogatives (Hamblin 1973).

---

² I use *know* here since it can take either an embedded question or proposition. *Daats’í* can also be embedded beneath Navajo bi béehozin ‘s/he knows it’, where it receives an embedded question interpretation.
3.0 Comparison with Interrogatives

- I follow Caponigro and Sprouse (2007) in taking normal interrogative utterances ("ordinary questions," OQs) to have the following properties:
  
  i. Ordinary questions are requests by the speaker for information from the Addressee.
  ii. The Speaker doesn’t know the answer, but thinks the Addressee may know.
  iii. An answer is required from the Addressee in order for the dialogue to be felicitous.

- Navajo has a question enclitic =ísh:

(11) Nahaltin=ísh
  it.is.raining=Q
  ‘Is it raining?’

- In the discussion below, we will see that =ísh patterns like an OQ marker. Daats’í does not.

3.1 Only daats’í is felicitous in contexts of established mutual ignorance

- In contexts where the Speaker knows that the Addressee does not know the answer (i.e., in contexts of mutual ignorance), daats’í is licensed but =ísh is not.

(12) Context: You don’t know if it is raining or not. Your coworker has been in your windowless office with you all day so you know she doesn’t know. You say to her,

  a. Nahaltin  daats’í
     it.is.raining  DAATS’í
     ‘I wonder if it’s raining.’

  b. # Nahaltin-ísh
     it.is.raining-Q
     ‘Is it raining?’

- Where the Addressee is known to have more information than the Speaker (e.g., she has been outside and knows the weather conditions), =ísh is preferred over daats’í.

  o Consultants suggested that either might be possible, but =ísh is preferred.

(13) Context: You don’t know if it is raining or not. Your coworker has just been outside so you know she knows what the weather is like. You say to her,

  a. ? Nahaltin  daats’í
     it.is.raining  DAATS’í
     ‘I wonder if it’s raining.’

  b. Nahaltin-ísh
     it.is.raining-Q
     ‘Is it raining?’
An exception?
The only context in which daats’i is readily used where the Addressee is known to know the answer is where you are inquiring about the Addressee herself. Here, consultants had a strong intuition that the Speaker is asking a question of the Addressee.

(14) Dichin daats’í nínízin
hungry DAATS’í you.feel
‘Are you hungry? I’m wondering if you’re hungry.’ Comment: “You’re politely asking.”

3.2 Only daats’i can function as a response
- Another attribute of OQs is that they require a response from the Addressee.
  o An OQ is not a felicitous response (in Navajo or English).
  o Daats’i was judged to be a felicitous response to an OQ (a), as were simple declarative statements (b), and modal statements with shįį

(15) Context: You (Speaker) and a friend (Addressee) are discussing who’ll come to a party.

Speaker says:
Ted=ish yiighah
Ted-Q he.will.come
‘Will Ted come?’

Addressee says:
a. Ted daats’i yiighah       c. Ted shįį yiighah
   Ted DAATS’í he.will.come  Ted MODAL he.will.come

b. ‘Aoo, Ted yiighah        d.# Ted=ish yiighah
   Yes Ted he.will.come      Ted=Q he.will.come

- In addition, sentences with daats’i (and shįį) are sufficiently informative such that action can be taken on their basis:

(16) Context: You (Speaker) and a friend (Addressee) are discussing what food to make for the party on the basis of which guests might come.

Speaker:
a. Ted daats’í yiighah
   Ted DAATS’í he.will.come

b. Ted shįį yiighah
   Ted MODAL he.will.come

Addressee:
’Akó shįį, dah diniilghazh ła’ ’adeeshliish.
okay.then frybread some I.will.make.it
‘Okay then, I will make some frybread (…because Ted likes frybread).
- By contrast, the following dialogue is not possible.

(17) **Context:** You (Speaker) and a friend (Addressee) are discussing what food to make for the party on the basis of which guests might come.

Speaker:
Ted=ish yiighah
Ted=q he.will.come
‘Will Ted come?’

Addressee:
# ’Akó shíí, dah diniilghazh lá’ ’adeeshliish.
okay.then frybread some I.will.make.it
‘Okay then, I will make some frybread (…because Ted likes frybread).’

### 3.3 *Daats’i* as a Conjectural Question marker?

- The failure of *daats’i* to be analyzed as an ordinary question marker does not mean that an interrogative-based analysis should be ruled out completely.

- Littell et al. (2010), Matthewson (2010), and Peterson (2010) discuss Conjectural Questions (CQs) in St’át’ímcets (Lillooet Salish), Nleʔkepmxcín (Thompson Salish), and Gitksan (Tsimshianic). Murray (2012) presents a similar facts from Cheyenne.

(18) a. sدين=iما=hl ُxbiist
    be.heavy=INFER=CND  box
    ‘The box might be heavy.’

b. نئ=hl  sدين=hl ُxbiist=a
   YNQ=CND be.heavy=CND  box=INTERROG
   ‘Is the box heavy?’

c. نئ=iما=hl  sدين=hl ُxbiist=a  ← Conjectural Question
   YNQ=INFER=CND be.heavy=CND  box=INTERROG
   ‘I wonder if the box is heavy.’

- They are argue that CQs are semantically and syntactically equivalent to questions given their ability to embed under question-selecting predicates (*know, ask*) (similar to *daats’i*).

  - However, CQs are different from OQs in their pragmatic conditions: CQs are felicitous in contexts of mutual ignorance while OQs are not (also similar to *daats’i*).

---

3 As noted in the introduction, CQ-like meanings have been reported in many languages. Disparate grammatical resources seem to give rise to similar meanings. Accounts of CQs in other languages can be found in Shklovsky (2011), Truckenbrodt (2006); Rouchota (1993), *inter alia.*
The analyses of CQs in these languages make use of the (overt) question and modal morphology shown in (18).

Littell et al. (2010): CQ denotes Hamblin-style question set. Inferential modal introduces presupposition of inferential evidence. Presupposition is conjoined to each possible answer in the question set.

\[
\text{[[ (18c) ]] = \{ \text{the box is heavy (and there is inferential evidence for this claim), the box is not heavy (and there is inferential evidence for this claim)} \}}
\]

Speaker indicates with CQ that s/he believes evidence to be contradictory. This results in reduced interrogative force.

⇒ **However, this account of CQs faces several problems for the Navajo data.**

- First: Navajo daats’í is not obviously decomposable into a modal and an interrogative morpheme.

- Second: The account deals well with CQs formed from wh-questions. However, Navajo does not seem to permit daats’í ever to appear with a wh-word. The account of daats’í should predict this restriction.
  
  o Consultants substitute wh-indefinites (e.g., háágóóšį́į́ ‘somewhere’) for the simple wh-word (háágóó ‘where’, haa ‘what’, etc.).

(20) **Context:** You are going to go on a hike with a friend later today. You don’t know where you’ll hike. You are talking to your mother, who doesn’t know any more than you do. You say to your mother, I wonder where we’ll go.

  a. Háá=góó=shį́į́ diikai ḥóla’
     somewhere we.will.go I.don’t.know
     *Translation*: ‘We’re going somewhere, I don’t know.’

  b. Háá=góó=shį́į́ daats’í deekai
     somewhere DAATS’Í we.go
     *Translation*: ‘Maybe we’re going somewhere.’
     *Not*: ‘I wonder where we’re going.’

  c. *Háá=góó daats’í deekai
     WH-to DAATS’Í we.go
     (*’I wonder where we’re going.’*)

---

4 For general problems with the account – and possible solutions – see Matthewson (2010).
- More generally, the interrogative morpheme =ísh is also ungrammatical with daats’i:

\[ (21) \]  
* Naháltin=ísh daats’i  
    it.is.raining=Q DAATS’i

- **Third:** Daats’i is able to operate below the level of the clause and “question” DPs or numeral/temporal phrases. The relevant data are discussed below (§3.4).
  
  o It is not obvious that this usage of CQs is available in Gitksan and other languages discussed by Littell et al. This is good since it is not clear that their account could generate this sort of meaning.

### 3.4 Daats’i can operate below the level of the clause

- The default position of daats’i is before the verb (second-to-final position) or after the verb (final position). In this position, the entire proposition is subject to daats’i.

\[ (22) \]  
Nábád diniih daats’i  
    your.stomach it.hurts DAATS’i  
    ‘Does your stomach hurt?’

- If daats’i is positioned elsewhere in the same sentence, however, consultants note that (23) sounds like “you’re questioning ‘is it your stomach specifically that is hurting’?”

\[ (23) \]  
Nábád daats’i diniih (…nitsii ts’iín daats’i)  
    your.stomach DAATS’i it.hurts your.head DAATS’i  
    ‘Is it your stomach that hurts?’ …‘Or is it your head?’

- Similar effect seen in (24). The usual position of daats’i is not good in the context.

\[ (24) \]  
**Context:** You know that your friend Dave took his horse out riding today. He is definitely going to ride the horse somewhere, but he didn’t tell you where. You heard that there’s a rodeo going on, so he might be riding there.

a. Naa’áhoi ná’ádleehí=di daats’i ili bił naaldloosh  
    rodeo.ground=LOC DAATS’i horse he.rides.it

b. ?? Naa’áhoi ná’ádleehí=di ili bił naaldloosh daats’i  
    rodeo.ground=LOC horse he.rides.it DAATS’i

5 A similar effect is observed for numeral and temporal expressions followed by daats’i. When daats’i directly follows a numeral expression or a time, it is translated as about, perhaps, maybe, etc. Crucially, the uncertainty only relates to the numeral or time. Shklovksy (2011) observes a very similar effect for a CQ-like construction in Tsetal

\[ (i) \]  
Yiskáagó shii dá’ák’eh=góó ’ashdladi daats’i ’alnáá’déesbás  
    tomorrow MODAL field=to five DAATS’i I.will.drive.back.and.forth
    ‘Tomorrow, I’ll make perhaps five trips back and forth to the field. ’(Young and Morgan 1987: 98)
3.5 Interim summary

**Data to be captured**

1. *Daats’i* gives rise to embedded question meanings when selected by question-selecting verbs.
2. Matrix sentences with *daats’i* are given a range of translations, incl. modal and interrogative.
   - Sentences with *daats’i* felicitous in contexts where both *p* and *¬p* are equally likely.
   - Sentences with *daats’i* do not have the force of ordinary questions.
3. *Daats’i* can operate at the level of the clause or below the clause level (e.g., on DPs).
4. *Daats’i* cannot co-occur with *wh*-words or with the interrogative morpheme *=ish*.

- An account of *daats’i* either as an English-style epistemic modal *might* or one that relies on an interrogative semantics (either as an OQ or CQ) will not work for *daats’i*.

- In the next section, I posit an account of *daats’i* that resembles the interrogative-based account – a set of alternatives are generated – borrowing from Rooth (1992) and Kratzer and Shimoyama (2002).

### 4.0 Proposal: *Daats’i* Generates Alternatives

**Proposal**

*Daats’i* is similar to focus (*f*) marking, on par with prosodic prominence in other languages, but operates within the ordinary semantic dimension.

*Daats’i* associates with some *α* (a proposition, an entity, or a numeral) and returns the set of *α* and its alternatives as the new semantic value of *α*.

The set of alternatives created by *daats’i* are used by a (null) operator.

#### 4.1 Generation of embedded alternatives by *daats’i*

- *Daats’i* expands the ordinary semantic value of material in its scope.
  - “Expansion” of ordinary semantic value ([[[*α*]]]) is essentially generation of alternative sets that would normally be associated with the focus value ([[*α*]]) of an expression under Rooth (1992). The expanded denotation remains in the first dimension, however.

- When an entire clause is in the scope of *daats’i*, *daats’i* generates polarity alternatives for *α*.
  
  The resulting set of alternatives is a Hamblin-style question denotation: a set of propositions.

(25)

\[
\begin{align*}
\text{CP} & \quad \alpha. [[\text{It is raining}]] = \lambda w. \text{it is raining}(w) \\
\text{daats’i} & \quad \alpha \quad \text{CP} \\
\text{nahtalin} & \quad \text{it.is.raining}
\end{align*}
\]
- The alternatives set produced by daats’i is the right sort of semantic object to be taken directly by interrogative embedding predicates, e.g., wonder (Lahiri 2002).

- Recall from §2 that the mental attitude predicate nizin can be variably translated as ‘think’ or ‘wonder,’ depending on the nature of the complement.

  o When nizin takes an embedded clause with daats’i as in (26), it can be translated as ‘wonder’:

    (26) Mary ƚééchąq’i daats’i shidoohląsh nizin.
        Mary dog DAATS’i they.will.bite.her she.thinks
        ‘Mary wonders if the dogs will bite her.’

- Daats’i can also operate below the clausal level and generate alternatives for, e.g., a DP:

    (27) Nibid daats’i diniih
        your.stomach DAATS’i it.hurts
        ‘Is it your stomach that hurts? Or is it your head?’

    (28) a. [[ Your stomach hurts ]] = hurt(your stomach)(w₀)
        b. [[ Your [stomach]daats’i hurts ]] = {hurts(your x)(w₀) | x in Dₜ}
           = {Your stomach hurts, Your head hurts, Your back hurts,…}

4.2 Expressing possibility at the matrix level

- On its own – whether operating at the clausal level or sub-clausal level – daats’i does not produce an informative utterance.

  o The alternative set consisting of the propositions {it is raining, it is not raining} is tautologous.

- However, we have seen that speakers are able to use sentences with daats’i as informative utterances.

    (29) \[ \begin{array}{c}
        \text{CP} \quad \text{daats’i} \\
        \text{nahałtin} \quad \text{CP} \quad \text{it.is.raining}
    \end{array} \]

    Translations: a. ‘It might be raining.’
    b. ‘Maybe it is raining, or not.’
    c. ‘Is it raining?’
    d. ‘I wonder if it is raining.’

- We will first concentrate on deriving the uses represented in (a) and (b) and then return to the interrogative-type translations in (c) and (d).

---

6 Following Rooth (1992: 79), I will leave it up to context to determine the contents in the alternative set for instances where the entire clause is not in the scope of daats’i.
- As in Kratzer and Shimoyama’s (2002) analysis of free choice indefinites in Japanese and German, I assume that the expanding set of alternatives is eventually selected by an operator.
  
  - Languages differ in the operators that they make available.

- I propose that in Navajo matrix clauses, a null epistemic modal will select the set of alternatives.

(30) For $[[\alpha]]^{w,g} \subseteq D_{st}$: $[[\text{MUST } \alpha]]^{w,g} =$

$$\{ \lambda w'. \forall w'''[w'' \text{ is accessible from } w' \& \exists p \ [p \in [[\alpha]]^{w',g'} \& p(w'') = 1] \}$$

“For all possible worlds $w''$, some proposition in the alternative set $\alpha$ operated over by the modal is true in $w''$.”

- This proposal would fit naturally into a theory in which all assertions are implicitly modalized (Kratzer and Shimoyama 2002, Alonso-Ovalle and Menéndez-Benito 2010).

- In Kratzer and Shimoyama’s proposal, the free choice effect arises through an additional distribution requirement, which requires that all alternatives in the alternative set must be true in some accessible world. 7

  - The distribution requirement protects the speaker from making too strong of an assertion.

(31) Distribution Requirement:

$$\lambda w'. \forall p \ [p \in [[\alpha]]^{w,g} \rightarrow \exists w'''[w'' \text{ is accessible from } w' \& p(w'') = 1]$$

“All propositions in the alternative set are true in some accessible world.”

- We can apply this analysis to daats’i in matrix clauses as follows.

  - Daats’i expands the denotation of the $\alpha$ (proposition or DP) it associates with, adding to the ordinary semantic value of $\alpha$ the set of alternatives to $\alpha$.

  - If the set of alternatives is utilized directly by a question-embedding predicate, a null matrix modal captures the set of alternatives (32, 33a).

  - The distribution requirement applies (33b).

7 They argue that the distribution requirement arises through conversational implicature, as demonstrating by the cancellability of the free choice reading of German irgendein. While this additional step will likely be useful in Navajo, I leave further exploration of it to future work.
\[
\text{(32) } \begin{array}{c}
\text{MUST} \\
\text{CP} \\
\text{CP} \\
\text{nahałtin} \\
\text{it.is.raining} \\
\text{daats'í} \\
\text{[ [It is raining]]} = \lambda w. \text{it is raining}(w)
\end{array}
\]

\[
\text{(33) } \begin{array}{c}
a. \text{[[[MUST]]][[[32]]]^{w,g}} = \\
\{ \lambda w'. \forall w''[w'' \text{ is accessible from } w' \& \exists p \in \{ \text{it is raining, it is not raining} \} \& p(w'') = 1} \}
\text{“For all accessible worlds, some proposition in the alternative set \{it is raining, it is not raining\} operated over by the modal is true.”}
\end{array}
\]

\[
\text{b. } \forall p[p \in [[\text{it is raining}]]^{w,g} \Rightarrow \exists w''[w'' \text{ is accessible from } w_0 \& p(w'') = 1}]
\text{All propositions in the alternative set \{it is raining, it is not raining\} are true in some world } w'' \text{ accessible from the real world } w_0.
\text{I.e., There are accessible raining worlds and accessible not-raining worlds.}
\]

This seems like a plausible semantic source for the translations in (29a,b).

---

**Can (32) be embedded, given a proposition-embedding predicate?**

**Yes.** While we focused on the embedded question interpretations of daats’í under nizin in §2.1, nizin is translated as both ‘wonder’ and ‘think,’ suggesting that it might embed both questions and propositions.

Given an appropriate context (e.g., (34b)), where the null modal operator has plausibly taken the alternative set as argument (returning a proposition), nizin is translated as ‘think’:

\[
\text{(34) a. Context: You are in the rainforest. You are trying to build a boat. While looking in the forest for materials, you come across a piece of mysterious wood. You have no ideas about it: you’ve never seen anything like it before. Later on, you are telling the story of our discovery of the wood to someone else who wasn’t there.}
\]
\[
\text{Díí tsin daats’í dahdidoo’ol nisin nít’éé.}
\text{this wood DAATS’Í float.up I.think/wonder PAST}
\text{‘I wondered if this wood would float.’}
\]

\[
\text{b. Context: … The wood reminds you of pinon wood, which you know can float. The wood is lightweight and not very dense. You suspect that it can float. Later on, you are telling the story of our discovery of the wood to someone else who wasn’t there.}
\]
\[
\text{Díí tsin daats’í dahdidoo’ol nisin nít’éé.}
\text{this wood DAATS’Í float.up I.think/wonder PAST}
\text{‘I thought that the wood might float.’}
\]

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\(^8\) This is very similar to the semantics posited by Deal (2011) for Nez Perce ignorance marker in ku’ weet ‘dunno.’
Comparison of ku’ weet and daats’í is left for future work.
4.3 Interrogativity at the matrix level

- The meaning in (34) is a possible source of all of the translations offered by speakers.

- I derive the apparent “interrogativity” of daats’i by means of a general cooperative principle of conversation which requires the Addressee to respond, if possible.
  
  o Fasola (2007) uses this type of mechanism (in conjunction with a ‘no evidence’ modal) to account for Quechua constructions that contain negation markers but are interpreted as polar questions.

- One possible prediction is that we will find the interrogative translations arising more often in contexts where the Addressee is known to be able to respond. This prediction seems to be borne out. Recall (14), repeated as (35).

(35) Dichin daats’i nínìzin
  hungry DAATS’i you.feel
  ‘Are you hungry? I’m wondering if you’re hungry.’
  Comment: “You’re politely asking.”

- Sentences with daats’i concerning states about which the Addressee will have privileged knowledge are always translated by speakers as polite questions.
  
  o Although there is no formal requirement (in the form of interrogative force) that the speaker respond (hence the politeness?), cooperative principles still make it clear that the Addressee ought to respond.

5.0 Conclusions and Further Work

5.1 Conclusions

- The range of translations speakers assign to daats’i do not indicate structural ambiguity, but rather an imperfect match between structures in Navajo and English.

- Neither a regular modal analysis, nor an interrogative analysis, is sufficient for daats’i.

\[ \text{Daats’i is an overt instantiation of f(ocus)-marking. It creates alternative sets.} \]

- Daats’i associates with some \( \alpha \) (a proposition, an entity, or a numeral) and returns the set of \( \alpha \) and its alternatives as the new semantic value of \( \alpha \).
  
  o The set of alternatives created by daats’i are used by a (null) operator. In matrix clauses, this operator is a null modal.
5.2 Future Directions of Investigation

- What is the source of ungrammaticality of *daatsʹi* with *wh*-words and question morphemes?

- What other operators in Navajo utilize the alternative set generated by *daatsʹi*? Are there overt operators of this type?

- **Cross-linguistic Perspective:**
  
  o How does *daatsʹi* relate to other particles that seem to give rise to similar translations (e.g., Japanese *kana*, Matsugu 2005)?

  o How does this relate to different morphosyntactic methods employed in other languages to obtain meanings similar to those attested for *daatsʹi*?
6.0 References