When tense shifts expressive presuppositions: *hani* and monstrous semantics

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1 Puzzle

Turkish *hani* has at least two uses that seem to have conflicting functions (Akar & Öztürk, 2020; Akar et al, 2020).

- In (1) it functions as a **reminder** of the prejacent.

(1)   a.   Ahmet is a vegan, and he had dinner at a vegan restaurant with Zeynep last month.
    b.   Hani <u>burada vegan bir restoran var-dı</u> (ya). Oraya gid-ebil-ir-iz.
       hani here vegan one restaurant exist-PST ya   there go-ABIL-AOR-1PL
       ≈As you know, there was a vegan restaurant here. We can go there.

> The underlined part is the prejacent.

- In (2) it **challenges** the truth of the prejacent as in (2b).

(2)   a.   Zeynep's vegan friend, Ahmet, wants to go out for dinner, and she tells him that there is a vegan restaurant nearby. After looking around for it and not finding it, Ahmet calls Zeynep.
    b.   Hani burada vegan bir restoran   var-dı?
       hani here   vegan one restaurant exist-PST
       ≈Wasn't there supposed to be a vegan restaurant here?

Two possible explanations:

          (i) A lexical ambiguity analysis of *hani*

☞   (ii) A unified analysis of *hani* and different LF components and scope relations in (1) and (2)

2 Goal of the Talk

> We propose a fully **compositional** explanation of the difference between (1) and (2) which involves a **unified presuppositional** semantics of *hani*

The ingredients of the analysis are (some standard; some new):

- o A standard semantics for the **past tense**

- o A standard semantics of *yes/no* **interrogatives** for cases like (2)

- o An unorthodox **scope** of the past morpheme in (2), (above *hani*!)

- o A novel   "monstrous" semantic rule that allows the wide scope past to shift the **context time** in the presupposition of *hani*.

…let us first see what motivates this view…

3 Morphosyntactic asymmetries

• Our starting point for a unified analysis of *hani* is in the following two observations.

– **Observation 1:** The challenge use of *hani* requires past tense marker on the main predicate.

(3)   a.   HANI burada vegan bir restoran   var*(-dı)?
           hani here   vegan one restaurant exist-PST
           ≈Wasn't there supposed to be a vegan restaurant here?
      b.   Hani burada vegan bir restoran   var   (ya). Oraya gid-ebil-ir-iz.
           hani here   vegan one restaurant exist ya   there go-MOD-AOR-1.PL
           As you know, there is a vegan restaurant here. We can go there.

– **Observation 2:** In the challenge use of *hani*, hani is phonologically prominent. We will show this consistently using small capitals letters (HANI).

(4)   HANI/#hani burada vegan bir restoran   var-dı?
      hani   here   vegan one restaurant exist-PST
      Intended: Wasn't there supposed to be a vegan restaurant here?

4 Towards a proposal

• What is **common** between (1) and (2)?

– *Hani* introduces the presupposition that the speaker and addressee of the conversation believe the prejacent to be true.

• What is the **main difference** between (1) and (2)?

– Reminder *hani* clauses are **declaratives.**   D-*hani* clauses (henceforth)

– Challenging *hani* clauses are ***yes/no* questions.**   Q-*hani* clauses (henceforth)

• What do the morphosyntactic contrasts tell us?

– The phonological prominence on *hani* indicates the presence of ***whether or not*** (Q) in Q-*hani* clauses.

– The obligatory **past tense** in Q-*hani* clauses **shifts the context time** of hani+prejacent to a past time, affecting the their felicity conditions.

5 The meaning of *hani*

• Contexts variables are unpacked into quintuples of variables **<w,t,s,a,g>**, where w is the world of the context of utterance, t its time, s its speaker, a its addressee, and g its assignment function.

(5) For any context <w,t,s,a,g>   *presupposition*   *assertion*

$[\![hani]\!]^{<w,t,s,a,g>} = \lambda p_{<s,t>}$: $\forall w'$ **s.t.** w' is compatible with what s and a believe in w at t, p (w')= 1. p

Therefore:

Hani p

> **Presupposes** that speaker and addressee in the context believe that p is true

> **Asserts** p

Let us see how this applies to our two cases.

5

6 D-*hani* clauses

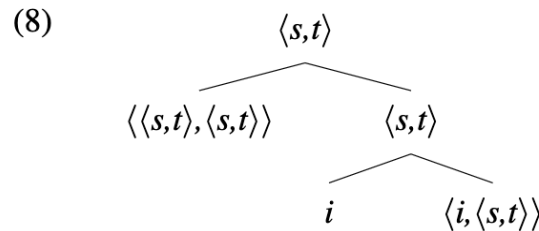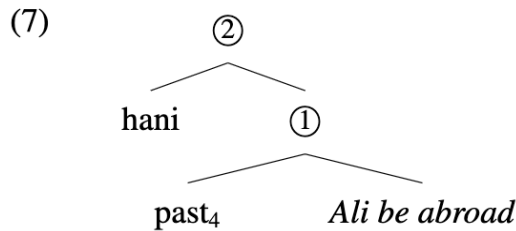## 6.1 Testing the presupposition

• D-*hani* clauses are

    - infelicitous in contexts where the prejacent is new to the addressee (6a),

     and

    - fine in contexts where both speaker and addressee both believe the prejacent to be true (<u>6b</u>).

(6)   a.   CONTEXT 1: You and Zeynep have a common friend, Ali, who went abroad last month. However, Zeynep is not aware of this as she has just woken up from a two month coma. You talk to her about what she has been missing, and say:

         b.   CONTEXT 2: You and Zeynep have a common friend, Ali, who went abroad last month, and both of you are aware of this.

         c.   Hani Ali geçen ay   yurtdışın-da-y-dı   (ya). Ora-dan   biz-e
               hani Ali last   month abroad-LOC-COP-PST ya   there-ABL 1.PL-DAT
               çikolata   getir-miş.
               chocolate bring-ANT
               ≈ 'As you know, Ali was abroad last month. He has brought us chocolate from there.'

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6.2 A sketchy derivation

• In (7)-(8), we present an LF for the D-*hani* clause in (6c), modulo the time adverbial. For ease of exposition, we decompose the prejacent into a tense morpheme of type *i* and a function from times to propositions.

(7)

```
              ②
            /     \
         hani      ①
                 /     \
             past₄   Ali be abroad
```

(8)

```
                    ⟨s,t⟩
                  /       \
      ⟨⟨s,t⟩,⟨s,t⟩⟩        ⟨s,t⟩
                         /      \
                       i    ⟨i,⟨s,t⟩⟩
```

• The past tense refers to a contextually salient past time (Partee 1973).

$⟦past_4⟧^{<w,t,s,a,g>}$　$\left[\begin{array}{l} \text{defined iff } g(4) < t \\ \text{if defined} = g(4) \end{array}\right.$

$⟦\textit{ hani } past_4 \textit{ Ali be abroad }⟧^{<w,t,s,a,g>}$ $\left[\begin{array}{l} \text{is defined iff } g(4) < t \text{ and } \textbf{s and a believe at t in w that Ali was abroad at g(4)} \\ \text{if defined} = \textit{that Ali was abroad at g(4)} \end{array}\right.$

Presupposition:　the contextually salient time precedes the utterance time & speaker and addressee believe that Ali was abroad at that time.

Assertion:　　　Ali was abroad at the contextually salient time

6. 3 Discussion

• D-*hani* clauses assert what speaker and addressee already believe at the time of utterance. Given this, their felicity conditions predict them to be **uninformative** in all contexts where they are felicitous.

• We observe that this does not necessarily leads to unacceptability (contra Stalnaker (1978, 1999, 2002)) insofar as the "redundant" assertion is otherwise pragmatically legitimated.

• We propose that D-*hani* clauses "set the stage" for a novel remark or suggestion (i.e., *he brought us chocolate* in (6c)) by making salient an already shared belief and by doing so highlighting its relevance to the current subject.

• In fact, these clauses are inappropriate when asserted in isolation.

(8) #Hani Ali   geçen   ay   yurtdışın-da-y-dı   (ya).
      hani Ali   last   month   abroad-LOC-COP-PST   ya
      'As you know, Ali was abroad last month.'

…Q-*hani* clauses, instead **challenge** the truth of the prejacent, therefore they cannot possibly assert it or presuppose that the speaker believes it to be true…how is this compatible with our meaning of *hani*?...

7. Q-*hani* clauses

7.1 Presupposition

(9)   CONTEXT I (S AND A CURRENTLY BELIEVE P) Mehmet and Emre know that Ahmet's birthday is tomorrow. As Mehmet is leaving the apartment to get Ahmet's a present, Emre asks where she is going. Ahmet answers:

# HANI	Ahmet-in	doğum	gün- ü	yarın -	dı?
hani	Ahmet-GEN	birth	day- POSS	tomorrow-PST	

"Wasn't Ahmet's birthday tomorrow?"

(10)   CONTEXT II (S AND A NEVER BELIEVED P) Mehmet and Emre don't know that Ahmet's birthday is tomorrow. As Zeynep is leaving the apartment to get Ahmet's a present, Emre asks Mehmet where she is going.

# HANI	Ahmet-in	doğum	gün- ü	yarın -	dı?
hani	Ahmet-GEN	birth	day- POSS	tomorrow-PST	

"Wasn't Ahmet's birthday tomorrow?"

(11)   CONTEXT III (S AND A BELIEVED P AT SOME **PAST** TIME) Mehmet and Emre thought that Ahmet's birthday is tomorrow. As Zeynep is wishing Ahmet a happy birthday today, Emre asks Ahmet:

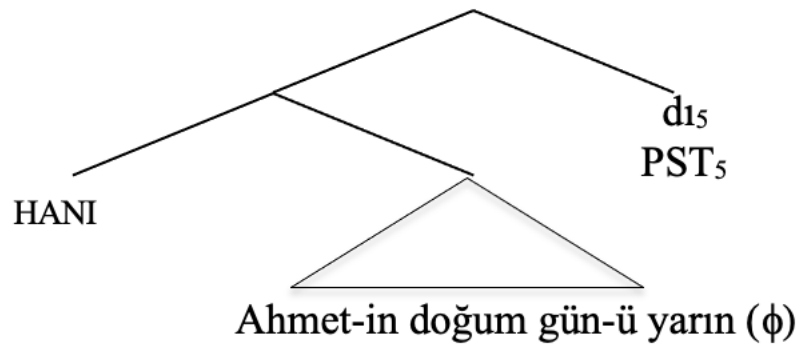| HANI	Ahmet-in	doğum	gün- ü	yarın -	dı
hani	Ahmet-GEN	birth	day- POSS	tomorrow-PST	

" Wasn't Ahmet's birthday tomorrow?"

Q-*hani* clauses presuppose that s and a **at some time prior to the utterance** believed the prejacent to be true.

• This is compatible with their pragmatic "challenging" function.

7. 2 Overt past tense > *Hani*

<u>Claim 1:</u> the overt past morpheme scopes above *hani*.

(12)

<u>Claim 2:</u> the overt past shifts the **contextual time variable** of its sister.

$⟦$ past$_5$ *hani* ϕ $⟧^{<w,t,s,a,g>}$ is defined iff g(5) < t and **s and a believe at g(5) that** ϕ **is true**

if defined then $⟦$ past$_5$ *hani* ϕ $⟧^{<w,t,s,a,g>}$ = *that* ϕ

=> (9)-(11)

7.3 Is the prejacent of Q-*hani* tenseless?

<u>Claim 3:</u> the prejacent contains its own (covert) tense (PRES or PST).

i. PRES not pronounced in Turkish:

(13)   Ali Istanbul   -da   -∅
        Ali Istanbul   -LOC –PRES
        " Ali is in Istanbul"

ii. PST is not pronounced under the evidential marker or another PST.

(14)   Ali   dün/bugün   gel   -iyor   -∅   -muş.
        Ali   yesterday/today   come IMPERF   PST/PRES   EVID
        'Ali was/is coming yesterday/today as I heard.'

(15)   Ali dün   gel   -iyor   -∅   ol-sa-y-dı,   biz-e   söyle-r-di
        Ali yesterday   come IMPERF   PST/PRES   come-CON-COP-PST   1.PL-DAT   TELL-AOR-PST
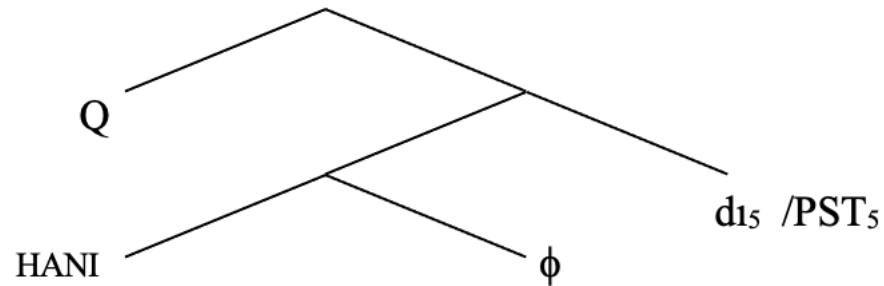   'If Ali had been/were coming yesterday/today, he would have told/would tell us.'

Therefore:

(16)   HANİ   burada vegan   restoran var- $\emptyset_{Pst}$/ -$\emptyset_{Pres}$ -dı?
        HANI   here   vegan   restaurant EXIST PST/PRES   PST

7.4 Why Q-*hani* clauses don't assert the prejacent

<u>Claim 4:</u> Q-*hani* clauses are *yes/no* questions

(17)

$[\![\,\text{Q}/\textit{whether or not}\,]\!]^{<\textbf{\textcolor{red}{w}},\textbf{t},\text{s,a,g}>} = \lambda p.\,\{p, \lambda w.\,p(0)=1\}$

Therefore Q-*hani* clauses **DON'T assert** the prejacent but inquire about its truth.

7.5 A sketchy derivation

• As an illustration we consider the Q-*hani* variant of (6c) in the reading in which the prejacent is past.

(18)　HANİ Ali yurtdışın-da-　　y-　　∅ $_{PST}$　-di?
　　　HANİ Ali abroad　　LOC　COP　PST　PST

(19)

Q　　　　　　　　　　　　①

type mismatch

$<s,t>$　←――――――――→　DI$_5$, i

HANI Ali be abroad ∅ $_{PST4}$
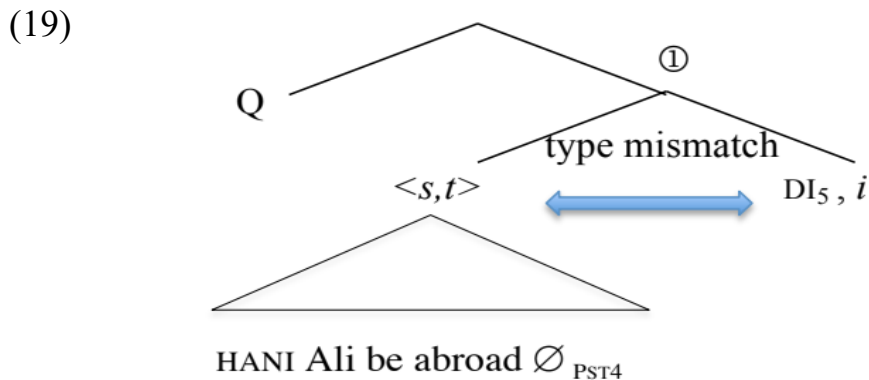
We know from the calculation above that for any context $<w,t,s,a,g>$,

(20) ⟦ hani *Ali be abroad* ∅ $_{PST4}$⟧$^{<w,t,s,a,g>}$ ⎰ is defined iff g(4) < t and **s and a believe at t in w that Ali was abroad at g(4)**
　　　　　　　　　　　　　　　　　　　　　⎱ if defined = *that Ali was abroad at g(4)*

The new rule in (17) below serves three main purposes:
　(i)　　　　It resolves the type mismatch.
　(ii)　　　It creates an abstract over the time contextual parameter of the interpretation of hani+prejacent.
　(iii)　　　It applies the abstract to the tense denoted by its sister node thus shifting the presupposition of *hani* to a time preceding the utterance.

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(21)   **MONSTROUS FUNCTION APPLICATION (MFA)**

If α is a branching node and {β, γ} the set of its daughters, and for any context <w,t,s,a,g>, $[\![γ]\!]^{<w,t,s,a,g>} \in$ dom(λt': β ∈ dom($[\![]\!]^{<w,t',s,a,g>}$).$[\![β]\!]^{<w,t',s,a,g>}$), then $[\![α]\!]^{<w,t,s,a,g>}$ = [λt': γ ∈ dom($[\![]\!]^{<w,t,s,a,g>}$) ∧ β ∈ dom($[\![]\!]^{<w,t',s,a,g>}$). $[\![β]\!]^{<w,t',s,a,g>}$]($[\![γ]\!]^{<w,t,s,a,g>}$)

This rule combines $[\![$ HANİ *Ali be abroad* ∅ $_{PST4}]\!]^{\textcolor{red}{<w,t,s,a,g>}}$ **and** $[\![$ PST$_5]\!]^{\textcolor{red}{<w,t,s,a,g>}}$ resulting in

(22)   **Presupposition:** S and A believe at $\textcolor{red}{g(5)}$ that Ali was abroad at g(4) and g(4)<g(5) and g(5) **< now**

(**according to MFA** $[\![$ HANI *Ali be abroad* ∅ $_{PST4}]\!]^{<w,\textcolor{red}{g(5)},s,a,g>}$ **must be defined**)

   Assertion: Ali was abroad at g(4)

Time line:

----------------g(4) (Ali abroad)------------g(5)(s&a's beliefs)--------NOW---------------→

(23)

HANI Ali be abroad ∅ $_{PST4}$ PST$_5$

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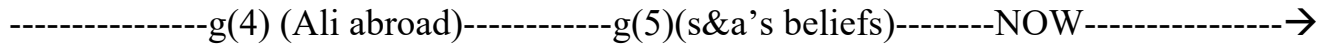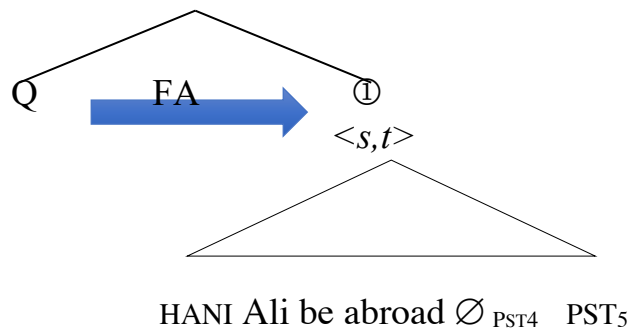
(24)   By FA, for any context <w,t,s,a,g>

$[\![\,Q\;①\,]\!]^{<w,t,s,a,g>}$ is defined iff $[\![\,①\,]\!]^{<w,t,s,a,g>}$ is defined

the presupposition in (18) is true | The presuppositions of ① project in the question |

if defined

$[\![\,Q\;①\,]\!]^{<w,t,s,a,g>} = \{$*that Ali was abroad at g(4), that Ali wasn't abroad at g(4)*$\}$

8. Conclusions

(25)   Time line if prejacent is past:

----------------g(4)------------g(5)(s&a's beliefs)--------NOW----------------→

(26) Time line if the prejacent is present.

---------------------------g(5)(s&--a's beliefs)/g(4)--------NOW----------------→

 In both cases the time of the prejacent precedes the time of the utterance!
The two following examples, however show that the two cases are distinct:

(27)
    a. **Context:** Last week, Ali and Zeynep were studying history together. They were focusing on the period of the Roman Empire, and Ali claims that the Colosseum at that time was used as a swimming pool, which Zeynep adds to her notes. At the exam, she indicates this function of the Colosseum and loses 20 points from the exam score.
      $g(4)$ = the time of Roman Empire
      $g(5)$ = the week preceding the utterance (belief's time)
      $g(4) < g(5)$
      It would be natural for Zeynep to confront Ali as follows.

    b. HANI *Kolezyum yüzme   havuzu-y-du?*
      hani Colosseum swimming pool-COP-PST

      ≈ 'Wasn't the Colosseum a swimming pool?'

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(28)　　a.　**Context:** Zeynep is hiding around the corner of Ali's office, intending to surprise him there. She calls him to double check that he is sitting there working, and Ali indeed confirms that he is. A few seconds later, as she opens the office door, she finds it empty and calls him again saying the following.

　　　　b.　HANI　*ofis-te-$\emptyset_{present/\#past}$-y-di-n?*
　　　　　　 hani　office-LOC-PRES/#PST-COP-PST-2SG

　　　　　　 Weren't you supposed to be in the office?

9 References

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Appendix:

How MFA(Monstrous Function Application) Works:

MFA combines ⟦ HANİ *Ali be abroad* $\varnothing$ $_{PST4}$ ⟧$^{<w,t,s,a,g>}$ and ⟦ PST$_5$⟧$^{<w,t,s,a,g>}$

$\lambda t'$: ⟦ HANİ *Ali be abroad* $\varnothing$ $_{PST4}$ ⟧$^{<w, t', s,a,g>}$ is defined **&** ⟦ PST$_5$⟧$^{<w,t,s,a,g>}$. ⟦ HANİ *Ali be abroad* $\varnothing$ $_{PST4}$ ⟧$^{<w, t', s,a,g>}$
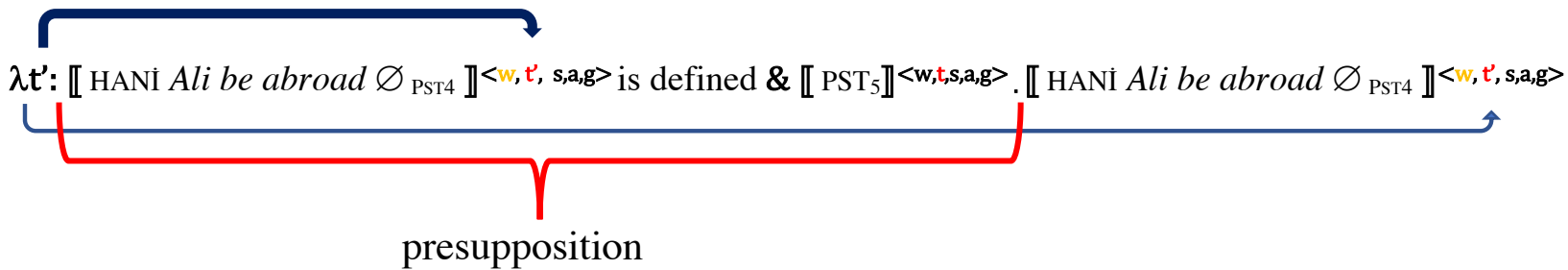
presupposition

and applies it to ⟦ PST$_5$⟧$^{<w,t,s,a,g>}$, with the result below

(18)   ⟦ HANI *Ali be abroad* $\varnothing$ $_{PST4}$ PST$_5$⟧$^{<w,t,s,a,g>}$ is defined iff i, ii, and iii hold

    i. ⟦ **HANI** *Ali be abroad* $\varnothing$ $_{PST4}$⟧$^{<w,g(5),s,a,g>}$

    ii. $g(5) < t$ **(presupposition of PST$_5$)**

    ii. $g(4) < g(5)$ **(presupposition of PST$_4$ interpreted relative to the context time parameter g(5)**

    iii. s &a believe at g(5) that A. was abroad at g(4) **(presupposition of *hani* relative to time parameter g(5))**

    if defined ⟦ HANI *Ali be abroad* $\varnothing$ $_{PST4}$ PST$_5$⟧$^{<w,t,s,a,g>}$ $=$ *that Ali was abroad at g(4)*

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Past and Present Prejacents:

For any PST_I refers to $g(i)$ and carries the presupposition that $g(4)$ precedes the utterance context time. In the above case however the context time variable PST_4 becomes $g(5)$, by the MFA application rule,

(19)   ⟦ HANI *Ali be abroad* ∅ $_{\text{PST4}}$ PST_5⟧$^{<\text{w,t,s,a,g>}}$ =

       i. $g(5) < t$ **(presupposition of PST_5)**

       ii. $g(4) < g(5)$ **(presupposition of PST_4 interpreted relative to the context time parameter $g(5)$)**

       iii. s &a believe at $g(5)$ that A. was abroad at $g(4)$ **(presupposition of *hani* relative to time parameter $g(5)$)**

       if defined

(20)   ⟦ HANI *Ali be abroad* ∅ $_{\text{PST4}}$ PRES_5⟧$^{<\text{w,t,s,a,g>}}$ =

       i. $g(5) < t$ **(presupposition of PST_5)**

       ii. $g(4)$ O $g(5)$ **(presupposition of PST_4 interpreted relative to the context time parameter $g(5)$)**

       iii. s &a believe at $g(5)$ that A abroad at $g(4)$ **(presupposition of *hani* relative to time parameter $g(5)$)**

       if defined A abroad at $g(4)$