# Teqe

*for Speedlang Challenge 6*

by *priscianic*

# Contents

# Chapter 1

# Introduction

This is a short sketch of **Teqe** [ˈtʰɨgɨ], a language constructed for the sixth speedlang challenge, as set by *Miacomet*. There are a few requirements that each entry must satisfy. There are phonological requirements:

- Neutralization of some phonemes in certain environments. Bonus points if you can use a morphological test to figure out which of the neutralized phonemes is present in a particular word!

- A productive morphophonological process involving suprasegmental features like stress or tone.

- Sound symbolism or sound iconicity of some sort.

Teqe satisfies the neutralization requirement with word-final laryngeal neutralization (Section 2.1.1), continuant deletion (Section 2.1.4), and dorsal palatalization (Section 2.1.5). The productive morphophonological (really, it's syntactico-phonological) process is a floating low-high tone that appears when extracting nonsubjects out of the verb phrase (VP), associating with the penultimate syllable in the phonological phrase (Section 5.1). The iconicity requirement is satisfied by the productive use of reduplication to mark plural objects (Sections 2.3 and 4.1).

And there are some morphosyntactic and semantic requirements:

- Show some kind of unusual agreement phenomenon.

- Clearly distinguish factive and non-factive complement clauses, either syntactically or morphologically.

- Incorporate noun classifiers or measure words in some construction.

The unusual agreement phenomenon is the interacting pattern of omnivorous agreement, *wh*-agreement, and antiagreement found in the auxiliary verb (Section 4.2). In the domain of clausal embedding, Teqe shows a contrast between nominalized and non-nominalized clauses; with certain verbs, the nominalized clause gives rise to a factive interpretation, and the non-nominalized clause does not (Section 5.2). Satisfying the final requirement, Teqe features a small but productive set of numeral classifiers (Section 3.2).

Finally, there are a few tasks that were set:

- Document and showcase your language, explaining and demonstrating how it meets all of the elements of the challenge.

- Translate and gloss five example sentences. You can either get "syntax test sentences" by asking Leo " = stest", in which case note down which number sentences you get, or you can pick from recent 'Just Used 5 Minutes of your Day' challenges posted by u/mareck_ on r/conlangs, in which case note which number 5MOYDs you do.

- Explain your conlang's kinship terms and how they're used.

The documentation and showcasing task is met by this quick sketch; the five example sentences are taken from 5MOYDs and can be found in Appendix A; a brief description of Teqe kinship terms can be found in Section 3.4.

I'll finish this introduction with a disclaimer: given the short time constraints, this sketch is indeed quite sketchy, and there's a lot I could have mentioned or described but didn't. There may be mistakes and inaccuracies throughout, and there are large discrpancies in how detailed my description of different aspects of Teqe. But, this disclaimer notwithstanding, if you decide to take the time to read through this entry, I hope you enjoy!

# Chapter 2

# Phonology

## 2.1 Consonants

Teqe has a small consonant inventory, consisting of thirteen contrastive segments across four places of articulation, as illustrated in Table 2.1. There is a series of stops, which contrast aspiration across all the places of articulation, there is a single nasal /n/ **n**, and there is a series of continuants. Note that the glottal fricative /ɦ/ **h** patterns as a continuant. Notably, there is no "true" fricative series.

|  |  | Labial | Coronal | Palatal | Dorsal |
|---|---|---|---|---|---|
| Stop | [+asp] | pʰ **p** | tʰ **t** | tʃʰ **c** | kʰ **k** |
|  | [–asp] | p **b** | t **d** | kʲ **g** | k **q** |
| Nasal |  |  | n **n** |  |  |
| Continuant |  | w **w** | r **r** | j **y** | ɦ **h** |

Table 2.1: Consonant inventory

### 2.1.1 Laryngeal neutralization

Teqe neutralizes laryngeal contrasts word-finally. All word-final stops are unaspirated, unvoiced, and often unreleased. This is represented in the orthography.

(1)   a.   **ab** /ap/ [ap] *grab, take, handle*
            (cf. **aban** /apan/ [ʔaban] *grab*.PROSP)

      b.   **ab** /apʰ/ [ap] *face*
            (cf. **apar** /apʰar/ [ʔapʰar] *face*.OBL)

(2)   a.   **urad** /urat/ [urat] *black*
            (cf. **uradar** /uratar/ [ʔuradar] *black*.OBL)

      b.   **urad** /uratʰ/ [urat] *fool*
            (cf. **uratar** /uratʰar/ [ʔuratʰar] *fool*.OBL)

(3)   a.   **rag** /rakʲ/ [rakʲ] *shirt, clothes*
            (cf. **ragar** /rakʲar/ [ragʲɛr] *shirt*.OBL)

      b.   **rag** /ratʃʰ/ [rakʲ] *back*
            (cf. **racar** /ratʃʰar/ [ratʃʰɛr] *back*.OBL)

(4)   a.   **beq** /pɨk/ [pɨk] *rice*
            (cf. **beqer** /pɨkir/ [pɨgɨr] *rice*.OBL)

      b.   **beq** /pɨkʰ/ [pɨk] *pierce, make bitter*
            (cf. **bekan** /pɨkʰan/ [pɨkʰan] *pierce*.PROSP)

## 2.1.2   Stop voicing

The unaspirated stops voice intervocalically. Optionally, they can voice word-initially.

(5)   a.   **cibi** /tʃʰipi/ [tʃʰibi] *bellybutton*

      b.   **kudane** /kʰutanɨ/ [kʰudanɨ] *month*

      c.   **gaga** /kʲakʲa/ [gʲɛgʲɛ] *baby*

      d.   **teqe** /tʰɨkɨ/ [tʰɨgɨ] *Teqe*

## 2.1.3   Aspiration dissimilation

There can only be one aspirated stop in a word. If there are multiple underlying aspirated stops in a word, then all but the first deaspirate. This is represented in the orthography.

(6)   a.   **watu** *home* + **kuy** *go* > **watuqu** *visit*

      b.   RED + **ican** *drink*.PROSP > **cigan** *drink*.PL.PROSP

### 2.1.4 Continuant deletion

None of the continuants, with the exception of /r/ **r**, can be realized word-finally.

### 2.1.5 Palatalization

Before /i/ **i**, the dorsals palatalize. This is represented in the orthography.

(7) a. kʰ **k** > t͡ʃʰ **c**

b. k **q** > kʲ **g**

c. ɦ **h** > z **z**

### 2.1.6 Glottal stop insertion

A glottal stop gets inserted before word-initial vowels.

(8) a. **ar** /ar/ [ʔar] *year*

b. **idu** /itu/ [ʔidu] *already, now, anymore*

c. **ubur** /upur/ [ʔubur] *udder*

## 2.2 Vowels

Teqe also has a small vowel inventory, contrasting only four segments. There is no length contrast, nor is there lexical tone—though there is grammatical tone.

|  | Front | Central | Back |
|---|---|---|---|
| High | i **i** | ɨ **e** | u **u** |
| Low |  | a **a** |  |

Table 2.2: Vowel inventory

### 2.2.1 Fronting

The non-front vowels front after palatals. ɨ a u > ɪ ɛ ʉ

### 2.2.2 Epenthesis

There is productive copy vowel epenthesis to break up consonant clusters and to satisfy minimal word requirements. It copies the preceding vowel.

(9)   a.   **kud-r** > **kudur** *moon.*OBL

      b.   **kuy** > **kuyu** *go*

## 2.3 Reduplication

Teqe features a productive pattern of partial reduplication, appearing on verbs, which marks that the object is plural (see Section 4.1 for details). Descriptively, there are two patterns of reduplication: the V-initial pattern, and the C-initial pattern.

The V-initial pattern is found with verbs that are vowel-initial, and the reduplication process copies the first consonant onto the onset of the first syllable.

(10)   a.   RED-**ab** *handle* > **bab** *handle.*PL

      b.   RED-**ig** *drink* > **cig** *drink.*PL

      c.   RED-**uran** *burn* > **ruran** *burn.*PL

The C-initial pattern is found with verbs that are consonant-initial, and the reduplication process copies the CV of the second syllable, and infixes that after the first CV of the word.

(11)   a.   RED-**qucaq** *hug* > **qucagaq** *hug.*PL

      b.   RED-**zihu** *cook* > **zihuhu** *cook.*PL

      c.   RED-**watuqu** *visit* > **watuduqu** *visit.*PL

Note that this feeds further phonological processes, like aspiration dissimilation.

# Chapter 3

# Nouns

## 3.1 Oblique case

Teqe has one case marker, **-r**, which marks what I'll call *oblique* case. One environment in which oblique case shows up is on the pre-auxiliary nominal. If there's no pre-auxiliary nominal, then no nominal gets oblique case.

(12) a. **urad-ar a    watuqu bar  ta**
        fool-OBL   NDIR talk.to    apple DEM
        *'The fool talked to that apple.'*

     b. **bar ta-r    a    watuqu úrad**
        apple DEM-OBL NDIR talk.to    fool.H
        *'A fool talked to that apple.'*

     c. **a    watuqu urad bar  ta**
        NDIR talk.to    fool  apple DEM
        *'A fool talked to that apple.'*

In (12a), the subject **uradar** *fool* precedes the direct auxiliary **a**, and it receives oblique case. In (12b), the object **bar tar** *that apple* precedes the direct auxiliary
la, and it receives oblique case. Additionally, the subject is postverbal, and it receives a floating high tone (see Section 5.1 for more details about this process). In (12c), there is no nominal preceding the auxiliary, so nothing gets oblique case.

The careful ready may have noticed an information-structural correlate

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with the pre-auxiliary position—in sentences that do not contain a focus, the pre-auxiliary nominal gets a topical, specific interpretation. But nominals are free to be topical/specific in the post-auxiliary position as well, as evidenced by **bar ta** *that apple* in the examples above. Typically (but not always), post-auxiliary topical/specific nominals show up with the demonstrative **ta** (or **keda**, its plural counterpart).

When there is a focused nominal, it occupies the pre-auxiliary position, even if it's not specific or referential, and correspondingly gets oblique marking:

(13)  a.  **urad-ar ra      watuqu bar  ta**
          fool-OBL    NDIR.FOC  talk.to    apple  DEM
          *'It was a fool that talked to that apple.'*

      b.  **bar-ar   ra      watuqu urád ta**
          apple-OBL  NDIR.FOC  talk.to    fool.H  DEM
          *'It was an apple that that fool talked to.'*

But the oblique marker isn't solely found in the pre-auxiliary position. The other environment in which the oblique marker appears is on possessors.

(14)  a.  **tawi-r qace**
          boy-OBL  uncle
          *'the boy's uncle'*

      b.  **ba       kawi ti**
          1SG.OBL  brain    PL
          *'my brain'*

The oblique marker also appears on the object of relational nouns, like **rag** *back, behind* and **ab** *face, front*. It seems like these act like possessors.

(15)  a.  **ta-r     watu-r rag**
          3SG-OBL  home-OBL  behind
          *'behind his house'*

      b.  **pahu-r     ab**
          chicken-OBL  front
          *'in front of the chicken'*

In dependent case theory, we can say that the oblique case is a kind of high dependent case, assigned to a nominal when it c-commands another nominal

within the same domain—in this case, the two relevant domains are TP[1] and NP.

## 3.2  Classifiers

Teqe features productive use of numeral classifiers. There are two classifiers: **kun**, which appears with human nouns, and **wana**, which appears with non-human nouns. The classifiers are in complementary distribution with the plural markers **qunu** (for humans) and **ti** (for nonhumans) and they are also in complementary distribution with the demonstratives **ta** (for singulars) and **keda** (for plurals).

The classifiers appear with quantifiers and numerals, and the general linear order is noun - Q/Num - Cl. Case marking attaches to the end of the entire noun phrase. Some examples are shown below:

(16)  a. **ba       gana ab  bar   aq  wana**
         1SG.OBL  NDIR.1 take apple one CL:NHUM

         *'I took one apple.'*

   b. **tawi      har      kun-ur  ig     ziun**
      boy-OBL   all-OBL  CL:HUM  drink  soup

      *'Each boy is eating soup.'*

   c. **qace  waq  kun-ur      re       zihu  ziun  ta?**
      man   WH   CL:HUM-OBL  DIR.FOC  cook  soup  DEM

      *'Which man made this soup?'*

Sometimes, the classifiers can appear without an overt noun; in these cases, the noun phrase gets a generic, bleached interpretation, or it is interpreted relative to an antecedent (a case of NP ellipsis):

(17)  a. **waq  wana-r       re        áb      na?**
         WH   CL:NHUM-OBL  NDIR.FOC  take.H  2SG

         *'What did you take?'*

   b. **tawi  aq   kun-ur      ra        qu<ca>gáq  ge,  bu   kun**
      boy   one  CL:HUM-OBL  NDIR.FOC  <PL>hug.H   1SG  two  CL:HUM-OBL

      **ra        qu<ca>gáq  na.**
      NDIR.FOC  <PL>hug.H   2SG

      *'I hugged one boy, you hugged two.'*

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[1]With *v*P as a soft phase.

## 3.3 Pronouns

Tables 3.1 and 3.2 list the pronouns found in Teqe. The third person pronouns are identical to the demonstrative.

|   | SG | PL |
|---|----|----|
| 1 | ge | kua |
| 2 | na | kuhun |
| 3 | ta | keda |

Table 3.1: Pronouns

|   | SG | PL |
|---|----|----|
| 1 | ba | kuar |
| 2 | han | kunur |
| 3 | tar | kedar |

Table 3.2: Oblique pronouns

## 3.4 Kinship terms

Teqe has, at its core, a Hawaiian kinship system. The basic kinship terms only distinguish generation and gender. In the table below, 0 stands for the generation you (the "ego") are in, 1 for the generation above you (your parents and aunts and uncles), and -1 for the generation below you (your children and nieces and nephews).

|    | M | F |
|----|-----|------|
| 2  | qaqu | awu |
| 1  | qace | wane |
| 0  | ude | iha |
| -1 | tawi | taya |
| -2 | tadawi | tadaya |

Table 3.3: Basic kinship terms

To refer specifically to members of one's nuclear family, there are compound forms for the 1, 0, and -1 generations: you compound them with **watu** *home, nuclear family* (Table 3.4). Often, especially in more colloquial speech and writing, these get abbreviated (Table 3.5). It's generally more common to use the basic kinship terms, even for one's nuclear family—the compound forms are generally only used for disambiguation or focus.

|     | M          | F          |
| --- | ---------- | ---------- |
| 1   | watu qace  | watu wane  |
| 0   | watu ude   | watu iha   |
| -1  | watu tawi  | watu taya  |

Table 3.4: Nuclear family

|     | M         | F         |
| --- | --------- | --------- |
| 1   | watuqage  | watuwane  |
| 0   | watude    | watiha    |
| -1  | watawi    | wataya    |

Table 3.5: Nuclear family (abbr.)

# Chapter 4

# Verbs

In this chapter, I'll discuss verbs, their morphology, their syntax, and the semantic contributions they make to the sentence. I'll discuss reduplication, the morphosyntax and semantics of the directness auxiliary, the semantics of the prospective, and how temporal reference works.

## 4.1   Reduplication

Teqe features a productive partial reduplication process that marks the plurality of the object, the phonological details of which are discussed in Section (2.3). More precisely, it marks the plurality of the *internal argument*—the object of a transitive, the subject of an unaccusative. Reduplication appears whenever the internal argument is a plural count noun.

(18)   a.   **ba  gana  <b>ab  bar  ti**
        1SG  NDIR.1  <PL>grab  apple  PL.NHU
        *'I grabbed the apples.'*

    b.   **kua-r  re       wa<tu>duqú      ta**
        1PL-OBL  DIR.FOC  <PL>converse.with-H  3SG
        *'It's us he's talking to.'*

    c.   **qace  qunu-r  ku<qu>  kazi**
        man     PL.HU-OBL  <PL>walk   outside
        *'The men are walking outside.'*

In (18a), we have a basic example of a plural object, **bar ti** *the apples* triggering reduplication on the verb. Example (18b) serves to show that reduplication is triggerd even when the object **kuar** *us* is preverbal and the subject **ta** *he* is postverbal. Example (18c) demonstrates that the argument that triggers reduplication need not be an object of a transitive verb—it can be the subject of an unaccusative.

Formally, the reduplicative morpheme merges with the verb root and contributes a presupposition that the first argument of the verbal predicate has a cardinality greater than one. We can formalize this as follows:

(19)  $[\![\mathrm{PL}]\!]^{c,i,g} = \lambda p.\lambda x : |x| > 1.\lambda e.p(x)(e)$

At its core, the reduplicative morpheme is an identity function that takes a predicate as an argument and returns that same predicate. It merely adds the presupposition that the internal argument of that predicate is nonsingular.

Note, crucially, that this isn't an *agreement* process—the verb is not agreeing in number with the theme. Rather, the reduplicative morpheme is semantically-contentful, and shows up on the verb whenever it has a *semantically* plural theme. A striking illustration of this comes from the fact that the reduplicative morpheme will show up if the theme denotes a plurality, but is syntactically singular:

(20)  a.  **qaren a<ya>ya ta-r    uta**
           Qaren  <PL>love  3SG-OBL family
           *'Qaren loves her family members.'*

      b. ***qaren aya ta-r    uta**
           Qaren  love 3SG-OBL family
           *(intended: 'Qaren loves her family members.')*

Similarly, with nouns that are syntactically plural but semantically singular, reduplication is impossible:

(21)  a.  **ba      gan ab    kawi    ti**
           1SG.OBL DIR.1 handle computer PL.NHU
           *'I'm using the computer.'*

      b. ***ba      gan <b>ab    kawi    ti**
           1SG.OBL DIR.1 <PL>handle computer PL.NHU
           *(intended: 'I'm using the computer.')*

## 4.2   The auxiliary

Here I discuss the auxiliary verb, one of the core defining features of Teqe. It appears in every sentence, marking *directness* (Section 4.2.2), and showing agreement for first and second person. The forms of the auxiliary are shown in Table 4.1.

|        | DIR   | NDIR  |
| ------ | ----- | ----- |
| ∅      | ∅     | **a**     |
| 1      | **gan**   | **gana**  |
| 2      | **nan**   | **naha**  |
| 1 > 2  | **naye**  | **naya**  |
| FOC    | **re**    | **ra**    |

Table 4.1: Auxiliary conjugation

### 4.2.1   Agreement

The auxiliary shows an "omnivorous" agreement pattern whereby it agrees with any speech-act participant (SAP) argument in the clause, no matter if it's a subject or an object. In the following examples, there's one SAP argument, and one third-person argument. The auxiliary will agree with the SAP argument.

(22)   *Agreeing with subjects*

    a.  **ba**      **gan  zihu  beq**
        1SG.OBL  DIR.1  cook  rice
        *'I'm cooking rice.'*

    b.  **han**      **nan  zihu  beq**
        2SG.OBL  DIR.2  cook  rice
        *'You're cooking rice.'*

(23)   *Agreeing with objects*

    a.  **ta-r**     **gana  qucaq  ge**
        3SG-OBL  NDIR.1  hug     1SG
        *'He hugged me.'*

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b. **ta-r    naha qucaq na**
   3SG-OBL NDIR.2 hug    2SG
   *'He hugged you.'*

If there's no SAP in the clause, the auxiliary doesn't show any kind of agreement.

(24)   *No SAP*

a. **qace-r  ∅  zihu beq**
   man-OBL DIR cook  rice
   *'The man is cooking rice.'*

b. **ta-r    a   ab gaga ta**
   3SG-OBL NDIR take baby  DEM
   *'He took the baby.'*

Something interesting happens when there are two SAPs in a clause. If a first person is acting on a second person, then the auxiliary agrees with both arguments:

(25) a. **ba     naya    watu-quy-an na**
        1SG.OBL NDIR.1>2 house-go-PROSP  2SG
        *'I might visit you.'*

b. **ba     naye    beq        na**
   1SG.OBL DIR.1>2 make.angry 2SG
   *'I've made you angry.'*

However, when a second person is acting on a first person, then the auxiliary only shows agreement for second person:

(26) a. **han    nan watu-quy-an ge**
        2SG.OBL NDIR.2 house-go-PROSP 1SG
        *'You might visit me.'*

b. **han    naha beq        ge**
   2SG.OBL DIR.2 make.angry 1SG
   *'You've made me angry.'*

When the subject is focused (contrastive focus, information focus, or a *wh* item), the auxiliary displays a focused form, and does not index agreement with speech-act participants—an instance of anti-agreement. This process can

be thought of as a kind of *wh*-agreement, since the focused forms of the auxiliary are distinct from the plain forms of the auxiliary. Compare **re** DIR.FOC and **ra** NDIR.FOC to $\varnothing$ DIR and **a** NDIR.

(27)  a.  **ba      re      zihu beq ta**
          1SG.OBL DIR.FOC cook rice  DEM
          *'It's me that cooked the rice.'*

      b.  **beq-er re      zihú  ge**
          rice-OBL DIR.FOC cook.H 1SG
          *'It's rice that I've cooked.'*

      c.  **waq kun-ur   ra       watu-qu na?**
          WH  CL:HU-OBL NDIR.FOC house-go  2SG
          *'Who visited you?'*

### 4.2.2  Directness

The main semantic distinction that the auxiliary marks is *directness*. At its core, directness marks how the verbal eventuality (the eventuality denoted by the verb) relates to the utterance situation, in terms of the notion of "overlap". Intuitively, we can think of the *direct* as marking that the situation "surrounding" the verbal event overlaps with the utterance situation, and the *indirect* as marking that the situation "surrounding" the verbal event *doesn't* overlap with the utterance situation. But first, before we proceed any further, a quick ontological diversion.

We can think of any eventuality as being associated with three eventualities: the "event nucleus" or "eventuality proper", the "pre-state" or "preparatory process", and the "post-state" or "consequent state". The event nucleus is simply the eventuality itself. A pre-state is an eventuality that temporally precedes and enables the event nucleus, an eventuality that is necessary (but perhaps not sufficient) to bring about the event nucleus. A post-state is, correspondingly, an eventuality that temporally follows and is enabled by the event nucleus. We can give the name *event complex* to the complex eventuality formed by the pre-state, the event nucleus, and the post-state.

As a concrete illustration, consider a "rice-cooking" eventuality $e_r$. Some possible pre-states for $e_r$ might include shopping for rice, entering the kitchen, washing rice, and so forth. Some possible post-states for $e_r$ might include serving rice, eating rice, washing dishes, and so on. A possible event complex

$E_r$ for that rice-cooking event nuleus might include a kitchen-entering pre-state, a rice-cooking event nucleus, and an eating-rice post-state.

Symbolically, I'll use a capital $E$ for event complexes, $e$ for an event nucleus, $e_{pre}$ for pre-states, and $e_{post}$ for post-states. I'll use the symbol $\prec_\tau$ to represent the relation of temporal precedence: $e_1 \prec_\tau e_2$ can be read as "$e_1$ temporally precedes $e_2$". I'll use the symbol $\ll$ to represent the enabling relation: $e_1 \ll e_2$ can be read as "$e_1$ enables $e_2$" (or, alternatively, "$e_2$ is contingent on $e_1$"). I'll use the symbols $\supseteq$ and $\subseteq$ to represent the parthood relation: $e_1 \supseteq e_2$ can be read as "$e_1$ contains $e_2$", and $e_1 \subseteq e_2$ can be read as "$e_1$ is a part of $e_2$". I will also be assuming that events are part of situations.

We can thus formally define an event complex as follows:

(28) An eventuality $E$ is an event complex iff $\exists e_{pre}, e, e_{post}$ such that:

    a.   $e_{pre} \prec_\tau e \prec_\tau e_{post}$

    b.   $e_{pre} \ll e \ll e_{post}$

    c.   $E \supseteq e_{pre}, e, e_{post}$

It will also be useful to define a function $\mathcal{E}$ that takes in an eventuality argument, and returns the maximal salient event complex that contains that eventuality as its event nucleus. I'm also including a domain restriction argument C as part of this definition, which is a set of contextually-relevant eventualities, but I'll be leaving it out in my notation from now on.

(29) $\mathcal{E}_C(e) := \iota E \in C$ s.t.
      $\exists e_{pre}, e_{post} \in C$ s.t.

    a.   $e_{pre} \prec_\tau e \prec_\tau e_{post}$                      (temporal precedence)

    b.   $e_{pre} \ll e \ll e_{post}$                                (enabling)

    c.   $E \supseteq e_{pre}, e, e_{post}$                              (containment)

    d.   $\neg \exists E' \neq E[E' \supseteq E]$                            (maximality)

Next, let us consider the notion of *utterance situation*. An utterance situation is the maximal situation (in the situation-semantic sense, a "part of a world") that contains the utterance event and every other situation/eventuality that is directly perceivable by the speaker. Intuitively, the utterance situation is everything that's going on near the speaker, within perceptible distance, during the utterance event. The utterance situation is the speaker's "direct perceptual sphere".

Formally, I'll define a function $\mathcal{S}$ that takes a context[1] as an argument and

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[1] A context is a tuple consisting of an author, addressee, time, location, and world: $\langle auth, addr, t, l, w \rangle$.

returns the maximal situation that is within the direct perceptual sphere of the author (or origo) of that context at the time, location, and world of that context:

(30)   $\mathcal{S}(c) := \iota s$ s.t.

    a.   $\forall s' \subseteq s, \text{PERCEIVE}(s')(\text{auth}_c)(t_c)(l_c)(w_c)$          (distributivity)

    b.   $\neg \exists s'' \neq s[s'' \supseteq s \land \text{PERCEIVE}(s'')(\text{auth}_c)(t_c)(l_c)(w_c)]$

                                                           (maximality)

$\mathcal{S}(c)$ returns the maximal situation $s$, all of whose subsituations are within the direct perceptual sphere of the author (or origo) of $c$ at the time, location, and world provided by $c$.

With the ontological diversion over, let's return to the category of directness. There are two values for directness: *direct* and *indirect*. Direct denotes that the salient event complex containing the verbal eventuality as its event nucleus overlaps with the utterance situation. Indirect denotes that the salient event complex containing the verbal eventuality as its event nucleus that doesn't overlap with the utterance situation.[2] Formally, we can thus define two operators DIR and NDIR, making judicious use of our event complex function $\mathcal{E}$ and our utterance situation function $\mathcal{S}$, as follows:

(31)   a.   $[\![\text{DIR}]\!]^{c,i,g} = \lambda p.\lambda s.\exists e[p(e) \land e \subseteq s \land \exists e'[e' \subseteq \mathcal{E}(e) \land e' \subseteq \mathcal{S}(c)]]$

    b.   $[\![\text{NDIR}]\!]^{c,i,g} = \lambda p.\lambda s.\exists e[p(e) \land e \subseteq s \land \neg \exists e'[e' \subseteq \mathcal{E}(e) \land e' \subseteq \mathcal{S}(c)]]$

The direct takes as arguments a predicate of eventualities $p$ and a situation $s$, and asserts that there exists an event $e$ satisfying the description $p$, that $e$ is a part of $s$, and that there exists an $e'$ that is part of the event complex projected from $e$ and is also a part of the utterance situation. The indirect takes as arguments a predicate of eventualities $p$ and a situation $s$, and asserts that there exists an event $e$ satisfying the description $p$, that $e$ is a part of $s$, and that there does not exists an $e'$ that is part of the event complex projected from $e$ and is also a part of the utterance situation.

Now that we've gone over the formalities, when do the direct and indirect get used? In practice, they end up with aspectual, evidential, and temporal flavors. The direct typically gets direct evidential and resultative perfect readings, and the indirect typically gets indirect evidential and "simple past" readings.

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[2]Alternatively, the indirect might be semantically unmarked, and the non-overlap inference found with the indirect might be derived via pragmatic competition with the direct (or an EXH operator).

When the verbal eventuality is occurring at the utterance time, then the direct vs. indirect contrast corresponds quite closely with a contrast in direct vs. indirect evidentiality. With the direct, the verbal eventuality is required to occur within the utterance situation, and is thus within the direct perceptual space of the speaker. With the indirect, the verbal eventuality is required to occur outside of the utterance situation, and will thus be outside of the direct perceptual space of the speaker. To illustrate:

(32)   [You're in the kitchen, and your roommate is cooking rice. You're talking to a friend over the phone, and tell them that your roommate is cooking. They ask what your roommate is cooking, and you answer:]

    a.   **beq-er re     zihú  ta**
        rice-OBL  DIR.FOC  cook.H  3SG
        *'He's cooking rice (within my direct perceptual space).'*

(33)   [You're in the bedroom talking to a friend. A few minutes ago, your roommate told you he was going to make rice right now. You tell your friend that your roommate is cooking, and your friend asks you what he's making. You answer:]

    a.   **beq-er ra     zihú  ta**
        rice-OBL  NDIR.FOC  cook.H  3SG
        *'He's cooking rice (outside of my direct perceptual space).'*

In (32), the fact that your roommate is cooking in the same room as you licenses the use of the direct. This looks quite a lot like a direct evidential reading, as you're directly perceiving (or can directly perceive) the cooking event. In (33), the fact that your roommate is cooking in a different room from you licenses the use of the indirect. This looks quite a lot like an indirect evidential reading, you can't directly perceive the cooking event—rather, you're relying on reportative evidence (what your rommate said he would do) for the utterance.

With past eventualities, the direct vs. indirect contrast behaves more like a resultative/evidential perfect vs. "simple past" contrast. With a verbal eventuality occurring prior to the utterance time, the direct marks that the *post-state* overlaps with the utterance situation, resulting in the inference that some salient *result* of the verbal eventuality is within the speaker's direct perceptual space, leading to perfect and inferential evidential readings:

(34)   [You're competing in a cooking competition, and have made rice for one of the challenges. You present it to the judges, who ask what the dish is. You answer:]

a. **beq-er re       zihú  ge**
   rice-OBL  DIR.FOC  cook.H  1SG

   *'I've made rice.'*

(35)   [You're in a cooking competition, and you cooked rice for the previous
       challenge a few days ago. One of the competitors asks you what you
       made for that challenge, and you answer:]

a. **beq-er ra       zihú  ge**
   rice-OBL  NDIR.FOC  cook.H  1SG

   *'I made rice.'*

In (34), the fact that a contextually-salient post-state of the cooking event—
the rice being presented to the judges—is occuring within the speaker's direct
perceptual sphere licenses the direct. This has a reading much like a resul-
tative perfect, or an evidential perfect (where the post-state counts as the
evidence for the cooking event). In (35), the fact that there is no contextually-
salient post-state of the cooking event at the utterance time licenses the use
of the indirect. This looks like a simple past, or maybe even a distant past.

# Chapter 5

# Clausal-level phenomena

## 5.1   Nonsubject extraction

Teqe shows a subject-nonsubject asymmetry in extraction. In particular, when we extract nonsubjects, a floating high tone shows up in the verb phrase and associates with the penultimate syllable in the verb phrase. Interestingly, this appears to be the only contrastive use of tone in Teqe. Orthographically, this high tone is marked with an acute.

(36)  a.  **pahu-r     gana zihú ge**
          chicken-OBL NDIR.1 boil.H 1SG
          *'I boiled the chicken.'*

    b.  **gaga-r ab-ar     gana watuqu kedá ge**
          baby-OBL front-OBL NDIR.1 talk.to   3PL.H 1SG
          *'They were talking to me in front of the baby.'*

    c.  **waq wana-r     zihu rúbu?**
          WH   CL:NHUM-OBL cook  Rubu.H
          *'What has Rubu cooked?'*

This leads to contrasts like the following:

(37)  a.  **gaga-r gana watuqu ge**
          baby-OBL NDIR.1 talk.to   1SG
          *'The baby talked to me.'*

b. **gaga-r  gana  watuqú  ge**
baby-OBL  NDIR.1  talk.to.H  1SG
*'I talked to the baby.'*

## 5.2  Clausal embedding

There are two core kinds of embedded declarative clauses in Teqe: nominalized clauses and **di**-clauses. Nominalized clauses can be the complements of any predicate that takes a propositional argument, and they are formed by adding the demontrative **ta** at the end of the embedded clause. In contrast, **di**-clauses can only be the complements of **adi** *say* (from which **di** derives) and **cunqe** *believe*, and they are formed by putting **di** at the beginning of the clause.

(38)  *Nominalized complements only*

a. **ba      gan dinaq** [**ba      ude-r      zihu ziun**] **ta**
1SG.OBL  DIR.1  like      1SG.OBL  brother-OBL  cook  soup      DEM
*'I like that my brother made soup.'*

b. *****ge  gan dinaq** [**di ba      ude-r      zihu ziun**]
1SG  DIR.1  like      DI  1SG.OBL  brother-OBL  cook  soup
*(intended: 'I like that my brother made soup.')*

(39)  *Both nominalized and **di**-clauses*

a. **ba      gana adi** [**ba      ude-r      zihu ziun**] **ta**
1SG.OBL  NDIR.1  say      1SG.OBL  brother-OBL  cook  soup      DEM
*'I said that my brother made soup.'*

b. **ge  gana adi** [**di ba      ude-r      zihu ziun**]
1SG  NDIR.1  say      DI  1SG.OBL  brother-OBL  cook  soup
*'I said that my brother made soup.'*

Note that **di**-clauses don't trigger oblique marking on pre-auxiliary nominals.

Another syntactic difference between the two kinds of clauses is that nominalized clauses can precede the auxiliary, but **di**-clauses cannot:

(40)  *Only nominalized clauses can occupy the pre-auxiliary position*

   a. [ **ba      ude-r      zihu ziun**] **ta-r      gana adí   ge**
      1SG.OBL brother-OBL cook  soup    DEM-OBL NDIR.1 say.H 1SG
      *'That my brother ate soup, I said.'*

   b. *[ **di ba      ude-r      zihu ziun**] **gana adí   ge**
      DI  1SG.OBL brother-OBL cook   soup    NDIR.1 say.H 1SG
      *(intended: 'That my brother ate soup, I said.')*

In addition to syntactic differences, there are also semantic differences between the two kinds of clause. With the verb **cunqe** *believe*, we get a *factivity alternation*: with a nominalized clause, we get a factive interpretation, akin to *know, remember,* but with a **di**-clause, we get a nonfactive interpretation, like *think, believe.* Note that this is a property of **cunqe** specifically; **adi** doesn't seem to feature a factivity alternation.

(41)  *Factivity alternation*

   a. **ba      gan cunqe** [**ba      ude-r      zihu ziun**] **ta**
      1SG.OBL DIR.1 know     1SG.OBL brother-OBL cook   soup    DEM
      *'I know my brother has made soup.'*

   b. **ge gan cunqe** [**di ba      ude-r      zihu ziun**]
      1SG DIR.1 think     DI 1SG.OBL brother-OBL cook   soup
      *'I think my brother has made soup.'*

# Appendix A

# 5MOYDs

Here are five glossed example sentences taken from 5MOYDs.

(42) **ta-r a tanqa ta-r bat i ta-r watuqara aq kun**
3SG-OBL DIR sell 3SG-OBL dog to 3SG-OBL neighbor one CL:HUM
*'He sold his dog to his neighbor.'* *5MOYD 1141*

(43) **ude, ta-r nan cunqe ná di gan adí ge?**
brother DEM-OBL DIR.2 think 2SG.H DI DIR.1 say.H 1SG
*'Brother, is that what you think I'm saying?'* *5MOYD 1143*

(44) **hazi keda-r re a<ca>garaqán ge**
vegetable DEM.PL-OBL DIR.FOC <PL>pickle.H 1SG
*'What I will pickle is the vegetables.'* *5MOYD 1214*

(45) **ba gan cunqe kaha ta-r kuyun a páqu**
1SG.OBL DIR.1 think OPT 3SG-OBL car NDIR break.down.H
*'I hope his/her car has broken down.'* *5MOYD 1219*

(46) **nihan tawi ta ha gabaku idu ta**
be.funny child DEM NEG go.sleep yet DEM
*'It is funny that this child hasn't gone to bed even now.'* *5MOYD 1245*

# Appendix B

# Dictionary

## A

**ab, aban** (v) *grab, take; handle, use*
**ab, apar** (n) *face; front*
**acar, acarar** (n) *pickled foods, fermented foods*
**acaraq, acaraqan** (v) *pickle, brine, ferment*
**adi, adiyan** (n) *say, tell; ask*
**aq** (num) *one*
**awu, war** (n) *grandmother, great aunt*
**aya, ayawan** (v) *love*

## B

**bar, barar** (n) *apple*
**bat, batar** (n) *dog*
**beq, bekan** (v) *pierce; make bitter; anger*
**beq, beqer** (n) *rice*
**bu** (num) *two*

## C

**cibi, cibir** (n) *bellybutton*
**cunqe, cunqan** (v) *think, believe; know; remember; wonder; want, wish*

# D

**dinaq, dinaqan** (v) *like, enjoy, appreciate*

# E

**eka, ekan** (v) *buy*

# G

**gaga, gagar** (n) *baby*

# H

**ha** (part) *sentential negation*
**hazi, hazir** (n) *cabbage, leafy greens; vegetables*

# I

**idu** (adv) *already, now, anymore*
**ig, ican** (v) *drink; eat (soup); absorb; smoke*
**iha, ihar** (n) *sister, cousin; girl, gal, woman, friend*

# K

**kaha** (part) *optative particle*
**kawi ti, kawi tir** (n, pl. tan.) *brain; computer*
**kud, kudur** (n) *moon*
**kudane, kudaner** (n) *month*
**kuyu, kuyan** (v) *go; walk*
**kuyun, kuyunur** (n) *vehicle, car, wagon*

# N

**nihan, nihanan** (v) *be funny, amusing*

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# P

**pahu** (n) *chicken*
**paqu, paquyan** (v) *break down, stop functioning*

# Q

**qab, qabar** (n) *bed*
**qabaku, qabakuyan** (v) *go to sleep, go to bed*
**qace, qacer** (n) *father, uncle; man*
**qaqu, qaqur** (n) *grandfather, grand uncle*
**qara, qarar** (n) *perceptual sphere; near, around*
**qucaq, qucaqan** (v) *hug*

# R

**rag, racar** (n) *back; behind*
**rag, ragar** (n) *shirt; clothes*

# T

**tadawi, tadawir** (n) *grandson, grandnephew*
**tadaya, tadayar** (n) *granddaughter, grandniece*
**tan, tanan** (v) *give*
**tanqa, tanqan** (v) *sell*
**tawi, tawir** (n) *son, nephew; boy*
**taya, tayar** (n) *duaghter, niece; girl*

# U

**ubur, ubur** (n) *udder*
**ude, dudur** (n) *brother, cousin; guy, man, friend*
**urad, uradar** (n) *black*
**urad, uratar** (n) *fool, idiot, simpleton*
**uran, urayan** (v) *burn, set fire to*
**uta, wadu** (n) *house; family, family members; extended family; village, tribe*

# W

**wane, waya** (n) *mother, aunt; woman*
**watu, watur** (n) *home; nuclear family members*
**watuqara, watuqarar** (n) *neighborhood; neighbors*
**watuqu, watuquyan** (v) *visit; talk to, converse with*

# Y

**yan** (n) *eyes*

# Z

**zihu, zihuan** (v) *boil; cook*
**ziun, ziunur** (n) *soup, esp. clear*