

Illnesses of Imbalance in Choapan Zapotec: A Case Study in Ethnomedical Documentation

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Documenting Ethnomedicine

Choapan Zapotec Medicine

Categorizing and understanding illnesses

Illnesses and their causes

Beyond lexical documentation

Grammar of illnesses in Choapan Zapotec

Summary and conclusions

Documenting Ethnomedicine

Questionnaire:

1. Name of illness in target, contact languages:
2. Is it contagious?
3. *Mesoamerica*: Is it hot or cold?
4. What causes this illness?
5. What are the symptoms?
6. Are there home remedies or traditional remedies? If yes, what are they?
7. Who can cure it, and how?
8. Are there any foods or activities to avoid? If yes, for how long?
9. If the sick person doesn't get cured, what happens to them?

Documenting Ethnomedicine

- Go through these questions for every illness an informant can think of
- Antonio Arreola Valentín, a Choapan Zapotec language consultant, came up with **140 illnesses** (and important facts) in this fairly artificial setting (2009).
- A questionnaire alone isn't enough, however.

Beyond a questionnaire

1. Questionnaires provide you with *something* in the target language, but are they nouns, verb phrases, compositional?
 - How do people talk about illnesses (versus just naming them)?
2. Lists of the illnesses, symptoms, and remedies are often incomplete
 - 2.1 Requires follow-up by the linguist, almost always including ethnographic work

Problems with an ethnomedical questionnaire

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1. Even a comprehensive list, like Arreola Valentín's, might still be missing conditions that a documenter would be interested in but that a consultant forgot or are not illnesses
2. Importantly: no taxonomy (if one exists in language) and little information about cures or how illnesses are discussed/conceptualized.

Complementary tasks to an ethnomedical questionnaire:

- Ethnobotanical survey, ethnozoological survey; plus food not covered by either of these (i.e., salt (Barker et al. 2017))
- Taxonomy of illnesses
- Interviews regarding cures
- Participant observation, ethnographic documentation
 - As Quinlan (2010) notes, this approach is mostly opportunistic; should probably be combined with others

Choapan Zapotec Medicine

'Humoral' system (Barker et al. 2017):

- Health requires balance between physical or metaphoric elements
- Illness results from imbalance
- In Mesoamerica, the two 'humors' are hot and cold

Choapan Zapotec Medicine

Hot v. cold dichotomy (Mesoamerican)

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Hot v. cold dichotomy (Mesoamerican)

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- Food, medicine, and other entities interacting with the body are also hot or cold
- A cold illness is caused by an excess of (physical or 'metaphoric' cold), and is cured with hot food or medicine
 - Introducing heat to the body brings balance to excessive cold
 - Vice-versa for hot illnesses

Physical v. metaphoric humors

- Metaphoric temperature \neq physical temperature
- Eggs, water, nopal cactus are *cold*, regardless of physical temperature (Donnelly ms; Mathews 1983)
- Chili peppers and sugar are *hot*, regardless of physical temperature (Donnelly ms)

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- Chili peppers and sugar are *hot*, regardless of physical temperature (Donnelly ms)
- Physical and metaphoric temperature are distinct, but can interact:
 - Water is usually physically cold or cool $>$ metaphorically *cool*
 - Chili peppers are hot in the sense of being spicy, making them metaphorically *hot*

Physical v. metaphoric humors

- However:
 - Eggs (*cold*), nopal cactus (*cold*), and sugar (*hot*) are normally at room temperature
 - Beans are *cold*, but are almost always served and eaten hot

Physical v. metaphoric humors

- Most animals we classify as cold-blooded (reptiles, amphibians) are *cold* animals in Choapan Zapotec.
- Our warm-blooded animals (mammals, birds) are mostly *hot*.
- Arthropods vary:
 - spiders are *hot*
 - millipedes, centipedes, and crustaceans are *cold*
 - other insects (flies, butterflies, dragonflies, wasps, bees, etc.) are mixed

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- beji bižo 'tiny (grape/cherry) tomato' *cold*
- beji daw? 'Capulin (small) tomato' *cold*
- beji lasi 'thin tomato' *hot*
- beji géla 'big tomato' *hot*
- beji jeʔeró? 'ball tomato' *hot*
- beji yá? a 'green tomato' *hot*

Physical v. metaphoric humors

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Likewise, eggs (which are *cold* by themselves) are used in treatment of a variety of *cold* illnesses.

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- *yela we? zifi* (lit. 'sweet sickness'), is type II diabetes
 - This *hot* illness is caused by too many sweets or by getting angry too often
 - Bitter food or drink can contradict the excess of sweetness in the body

Choapan Zapotec illness and wellness: summary

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- Internal or external hot/cold forces (emotional, physical, or metaphysical) can disrupt the hot-cold balance and cause illness
- Temperature of illnesses, medicines, or food is largely arbitrary: akin to lexical classes in grammar

Categorizing and understanding Choapan Zapotec illnesses

One approach:

What are the categories of medical professionals?

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What are the categories of medical professionals?

Allows a more objective approach that inspects pre-defined, culturally relevant categories.

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- Curander@ (healer/shaman): Physical and mental/emotional/spiritual ailments

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- Hueser@ (bone doctor): broken bones

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- Likewise, there isn't a strict division between causes of emotional and physical illnesses

Illnesses from excessive worrying or excessive anger:

- Intestinal colic
- Stomach aches
- Bile (acid reflux)
- Diabetes (also caused by susto)
- Herpes
- Rage
- 'Mental breakdown'
- Insomnia

Illnesses from externally-caused hot/cold imbalance:

- Asthma (also caused by susto)
- Fever
- Apendicitis
- Conjunctivitis
- Cracked feet or hands
- “womb coldness”
- Nosebleed
- Tuberculosis
- Tinnitus

Spiritual or emotional illnesses

Spiritual or emotional illnesses are also caused by external forces, including:

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- Witchcraft
- Tricks, spells, or other acts from a chaneque or duende (spirits or demons that live in nature)
- Bad/evil air
- Another human's gaze (causes mal de ojo)
- Susto (extreme shock or fright) from various natural entities, including other humans or animals, falling from a height, etc.

Spiritual or emotional illnesses

Spiritual/emotional illnesses are partly cured using susto herbs:

- kwan tsébi?
- kwan giji dáw?
- kwan negá?na?
- kwan gitsa?

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Asthma and a fever with chills are also cured with susto herbs, however.

Non-division between mental and physical

- Unlike Western mind-body division, Choapan Zapotec does not have a black-and-white distinction between emotional/spiritual illnesses and physical ones
- Doctors, causes, treatments for emotional and spiritual illnesses overlap
- Documenting illnesses in Zapotec requires a researcher abandon Western models of health

How can linguists contribute to ethnomedicine documentation and research?

So far:

- List of illnesses in target language
- Questionnaire investigating symptoms and cures
- List of medicines (and plants) in target language
- Taxonomies of plants, animals, medicines, illnesses

Grammar of ethnomedicine

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The grammar of how illnesses are talked about in the target language

Grammar of ethnomedicine

Documentation of how people talk about illnesses and their cures is crucial to understanding ethnomedicinal system of a language.

Examples of the ‘grammar of illnesses’ in Choapan Zapotec

- How do speakers talk about and conceptualize illnesses?
- What might this tell us about the larger ethnomedical system?

-aka 'to occur, happen, experience'

(1) rakabi? ro bifi

r= aka =bi? ro bifi

HAB= experience =3s.FAM cough heavy

'They (sg.) have tuberculosis' (lit. 'they're experiencing a heavy cough')

(2) nakabi? tsébi?

n= aka =bi? tsébi?

STAT= experience =3s.FAM *susto*

'They (sg.) have *susto*' (lit. 'they're experiencing *susto*')

(3) nakabi? bzin

n= aka =bi? bzin

STAT= experience =3s.FAM shadow

'They (sg.) have mal de ojo' (lit. they're experiencing a shadow')

-daʔ 'stick with, stick on'

(4) rdaʔbiʔ gyelaweʔ

r= daʔ =biʔ gyelaweʔ

HAB= stick.on =3s.FAM illness

'They (sg.) are sick' (lit. 'they're stuck with an illness; an illness is stuck on them')

(5) rdaʔbiʔ bè

r= daʔ =biʔ bè

HAB= stick.on =3s.FAM air

'They (sg.) got bad air' (lit. 'air is stuck on them')

(6) rdaʔbiʔ ʒíʃi

r= daʔ =biʔ ʒíʃi

HAB= stick.on =3s.FAM sweet

'They (sg.) have diabetes' (lit. 'sweetness is stuck on them')

-yeza 'to penetrate'

'-yeza' is only for *mal aire*:

(7) byezabí? bè

b= yeza =bi? bè

CMPL= penetrate =3s.FAM air

Lit. '(bad) air penetrated them (sg.)'

-yoʔ 'enter, be inside'

(8) ryoʔbiʔ da là

r= yoʔ =biʔ da là

HAB= be.inside =3s.FAM CMPLTZR hot

'They (sg.) have a fever' (lit. 'they're inside something hot')

(9) ryoʔbiʔ ʒíʃi

r= yoʔ =biʔ ʒíʃi

HAB= be.inside =3s.FAM sweet

'They (sg.) have diabetes' (lit. 'they're inside sweetness')

-yaga 'be cold'

A fever is 'being inside heat', but chills with an illness is not:

(10) reyagabi?

r= e= yaga =bi?

HAB= ITR= be.cold =3s.Fam

'They (sg.) are cold'

Grammar of losing one's life-force

- A person with susto is experiencing it or having it happen to them (verb -aka).

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- A person with susto is experiencing it or having it happen to them (verb -aka).
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(13) negáʔmbiʔ

n= e= gáʔn =biʔ

STAT= ITR= stay =3s.FAM

'They (sg.) stayed' (lit. 'they're staying else [somewhere else])

Grammar of losing one's life-force

- Gramatically, a person with susto *literally stays* wherever their life-force was lost.

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- Gramatically, a person with *susto* *literally stays* wherever their life-force was lost.
- Their physical being, of course, is elsewhere, but this distinction is not made.
- Even with a *susto* sufferer physically in the room, speakers say *negá?mbi?* 'they (sg.) stayed [elsewhere]'

Grammar of losing one's life-force

Someone who stayed at home, for example, is talked about with same verb stem, but different tone:

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Someone who stayed at home, for example, is talked about with same verb stem, but different tone:

(15) negaʔmbíʔ

n= e= gaʔn =bíʔ

STAT= ITR= stay =3s.FAM

'They (sg.) stayed'

Grammar of losing one's life-force

Someone who stayed at home, for example, is talked about with same verb stem, but different tone:

(16) *negaʔmbíʔ*

n= e= gaʔn =bíʔ

STAT= ITR= stay =3s.FAM

'They (sg.) stayed'

High tone for non-susto staying is on *biʔ* instead of the verb stem.

Section summary

Grammatical constructions used to discuss illnesses can **greatly contribute** to ethnomedical understanding and documentation.

Insight into how speakers conceive of illnesses (and their cures).

Section summary

In Choapan Zapotec, illnesses are discussed using the following verbs:

- -aka 'experience, happen'
- -daʔ 'stuck on'
- -yoʔ 'be inside'
- -yeza 'penetrate' (bad air)
- -gaʔn 'stay' (life-force stays behind)

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In addition to lists of illnesses, symptoms, and cures, illness verbs tell us more about how speakers understand illnesses.

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Illness verbs tell us how speakers understand illnesses:

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→ Sufferer needs bitter food/drink to get out of sweetness, or to get sweetness off of them

- Without complete documentation, conceptual links between illness and cure would be unclear

Summary

Knowing how a language's grammar encodes illnesses can tell us about:

- How speakers experience illness themselves
- How speakers understand others' illnesses
- System-internal accounts of symptoms and cures

Documentation of ethnomedicine is incomplete without this step.

Summary

(Near-)complete ethnomedical documentation:

- Lists of:
 - Illnesses
 - Causes
 - Symptoms
 - Medicines and cures
- Complementary documentation of zoology, botany, etc.
- Texts or elicitations showing how illnesses are discussed in the language

Conclusions

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- Western body-mind division is inapplicable
- Not 'just' ethnomedical documentation, but botanical, zoological, and ethnographic (incl. spirituality/emotions)
- Hot/cold imbalances and the names or grammatical encoding of illnesses are key to better understanding the system

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For Choapan Zapotec,

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For Choapan Zapotec,

- Metaphors like 'inside', 'stuck on', etc. are as crucial as hot/cold metaphorical dichotomy
- These metaphors also interact with the hot/cold dichotomy (e.g., diabetes, susto)
- Contribution: suggestion of more work on metaphor and grammar of Mesoamerican ethnomedical systems

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For ethnomedical language documentation in general:

- Ethnomedicine as part of a complex cultural system
- Language-specific details require careful documentation
- Symptoms, cures, understanding of illnesses are unintuitive to Western fieldworkers (even with familiar illnesses)
 - As outsiders, one we can never fully 'get'
- Fully documenting ethnomedicine requires documentation of complementary systems: botany, zoology, spirituality/emotions, general cultural ethnography

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For ethnomedical language documentation in general:

- Use many approaches to try to understand the system:
 - Questionnaire
 - Participant observation
 - Interviews
 - Elicitation or texts about illnesses (incl. grammatical constructions)
- Best way, as outsiders, to understand and accurately and faithfully document immensely complex system

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