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REGULATIONS ON USE

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Background
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CONSTRUCTIONS IN 'LANGUAGE AND PERCEPTION'
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Project   Categories and concepts across language and cognition

Task   This field guide is for eliciting information about grammatical resources used in describing perceptual events and perception-based properties and states. A list of leading questions outlines an underlying semantic space for events/states of perception, against which language-specific constructions may be defined. It should be used as an entry point into a flexible exploration of the structures and constraints which are specific to the language you are working on.

Goal of task   The goal is to provide a cross-linguistically comparable description of the constructions of a language used in describing perceptual events and states. The core focus is to discover any **sensory asymmetries**, i.e., ways in which different sensory modalities are treated differently with respect to these constructions.

Prerequisites You should already have an idea of basic argument structure and grammatical relations in your language. You should be able to explicitly state formal properties of grammatical entities like subject and object, role-relational systems like case-marking and agreement, along with essential trappings of transitivity and information structure, including aspectual-modal marking and definiteness.

Background

All languages have words for describing perceptual events and perception-based properties and states: e.g., verbs like *smell, hear, listen, sound, look, see*, or adjectives like *bitter, green, rough, round,* and *fragrant*. And all languages have grammatical constructions in which these words are used. Lexical semantic analysis captures important aspects of the linguistic conventionalisation of complex meaning in a given domain, but there is also important semantic content and organisation in associated grammatical structures. The study of grammatical constructions and their behaviour is a necessary complement to lexical semantics.

Previous comparative lexical semantic research (Viberg 1984) was able to derive hierarchical relations among different sensory modalities on the basis of attested conflations in single lexical items (e.g. hearing and feeling being coded in a single item, such as *ñin2* 'hear/feel' in dialects of Lao). We want to pursue the idea that grammatical constructions, too, will yield relevant data here. If there is lexical conflation can the different senses be distinguished by particular constructions? And if so, is there evidence for asymmetrical treatment of the senses through the constructional resources? Or are some constructions used for expression of some sensory modalities (e.g. vision in *It looks to me like the farmhouse is white*) and not others (e.g. feeling in *??It feels to me like Brenda's toes are warm*). (Examples from Cooper (1974a, b)).

In conventional descriptions of complex events, semantic components can be packaged into single morphemes, or may be distributed. Think of the distribution of motion information in examples like *She **rode** her horse **along** the ridge*. An aim of this guide is to draw attention to similar phenomena in the domain of perception. So, in *This beer tastes too **bitter***, and *That egg **looks** unusually **round***, components of the perception event appear in separate parts of the construction. Are there systematic differences in how languages package and distribute meaning in the grammar of perception? Some leading questions:

- In descriptions of perception events, what types of constructions are found?
- Are different sensory modalities treated differently in each construction? How?

These questions imply a research project of enormous scope. To keep it manageable, the focus here is on the realisation and relative distribution of (1) the core participants in a perception event: experiencer and source; and (2) core components of the event including the properties of the source, and the experiencer's evaluation. The many subtleties of individual languages are left to individual researchers' interest, and to the demands of each language. But the core focus is on asymmetries in encoding the senses in grammar.

Our anchor for comparability across languages with significantly different grammars is a single, underlying conceptual 'ground' for perception events. Different constructions will pick out different 'figures' against this ground, 'profiling' some components and attributing relative salience to them. (On the notions of figure/ground in constructions, profile, relative salience, see Langacker 1987.)

EVENT
PROPERTY
EVALUATION

EXPERIENCER | organ ◄──────────────────► trace | SOURCE

Figure 1. Elements in a conceptual scheme as 'ground' against which different grammatical constructions pick out sub-structures as 'figure'. Multiple figures are possible. These may be ranked according to prominence.

The main components of interest are the following:

Participants   *experiencer (Ex)*
                          source (S)

Relations   *event (Ev)*
                          property (p) Focuses on inherent properties of S
                          evaluation (e) Focuses on Ex's attitude to S

Figure 1 provides a rough possibility space for the components of any event or state of perception. Constructions can be compared through their common anchoring to this underlying base, and its components.

The task is to use the following text and examples for orientation, both in field elicitation and in consultation of texts and other materials on your field language. Two overarching questions are relevant to each point of inquiry in the sections below:

> I. What resources or constraints are there in this language?
> II. Do these resources/constraints apply differently depending on the sensory modality being described?

(1) Participants

(1a) Participant realisation

What are the conditions and possibilities for realisation of the two core arguments, Ex and S?

i. *Assuming core participants Ex and S, which are explicitly expressed?*

Logical possibilities are Ex-only, S-only, and Ex-and-S.

> - Ex only: ***John*** *can see.*
>   ***Mary*** *can't hear.*
> - S only: ***The car*** *stinks.*
>   ***This chili*** *is very spicy.*
> - Ex and S: *I* find ***this chili*** *very spicy.*
>   *It tastes very spicy* ***to me***.

Be careful to recognise cases when zero expression of an argument is in fact referential (i.e., in cases of zero anaphora). For example, *John was looking* does not overtly express a theme argument, but a definite/specific theme must be understood from the context (i.e., we can only use *John was looking* when it is clear from the context what it is he was looking *at*).

ii. *Are there different constraints on grammatical behaviour of the possibilities in i?*

Languages will allow more than one of the logical possibilities given in i, but one or another of these may show special constraints.

> In English, Ex-only constructions are heavily constrained in that their focus is exclusively on the Experiencer's *possibility* of having *any* kind of perceptual experience by means of a given sensory modality. The reference of all components of the predicate (p/e and S) must be completely non-specific and non-referential. Accordingly, English seems to require the use (or implication) of a modal such as *can* in these Ex-only structures. Examples like *John can see* mean that Ex has the ability of seeing anything that is visible. The construction directs attention entirely on Ex's potential for seeing, not on any event of seeing. Similarly, we get *John can't hear* where this is a

statement about John, not about any event of (not) hearing, or any thing which John did or didn't hear.

iii. Are there asymmetries across modalities within any of the constructions listed in i?

For a given type of construction, there may be different constraints on its grammatical behaviour depending on the modality of the perceptual event (seeing versus hearing, etc).

> In English, *John can see/hear* both sound fine, while *John can smell/taste/feel* sound odd, or at least require a special context to sound normal. Note that the use of negation helps: *John can't smell/taste/feel* sound better. (This parallels the lexicalisation of *blind* and *deaf* with no equivalent for other senses.) And note that they are further improved by the addition of *anything* as object, as in *John can't smell/taste/feel anything*. For all of these, there is another possible reading, that is, a 'definite object' reading, where the thing that can or cannot be perceived is definite, specific, and retrievable from the context. (So, *I can't see* may mean 'I can't see it'.) But this is only possible from a zero object in the case of *see* and *hear*. In the case of *smell/taste/feel*, *anything* must be added (or, of course, *it*).

(1b) Participant prominence

For each expressed participant, is it in a slot of high prominence (e.g. subject) or low prominence (e.g. object)?

Prominence refers to the relative status of participants explicitly included in the construction, defined in language-specific terms. In a canonical English transitive clause, the more prominent argument will be in *subject* function, the less prominent argument in *object* function. Some ways in which subjects are more prominent include: they are in a higher phrase structure position than objects, they determine verb agreement, they are a syntactic pivot (e.g. for ellipsis in conjoined clauses), they tend to represent topical, referential information. When there is just one argument in a clause, English treats this argument in the same way as it treats the more prominent argument in a transitive clause, i.e., as subject. Other languages might not do this, particularly in the case of perception events.

> - Ex high prominence: **John** *can see.*
> - S high prominence: **The car** *stinks.*
> **This chili** *is very spicy.*
> - Ex high and S low prominence: *I find* **this chili** *very spicy.*
> - Ex low and S high prominence: **It** *tastes very spicy* **to me***.*

(1c) Participant directness

Is the participant coded as a direct argument of a verb, or indirectly?

Direct arguments are immediate complements of a verb, like *John* and *it* in *John saw it*. By contrast, participants are indirectly expressed if they are in some way formally 'distanced' from a canonical argument slot. This may be achieved by a range of means, including non-canonical case-marking (e.g. using instrumental instead of accusative case for a theme, or dative instead of nominative case for an experiencer), embedding in a

possessive noun phrase (e.g., embedding the experiencer *John* in a phrase *John's nose* or *John's eye*), or in a prepositional phrase (e.g., *I took a sniff **of the roses***).

- Ex direct:	***John*** *can see.*
- S direct:	***The car*** *stinks.*
	This chili *is very spicy.*
- Ex indirect:	***To John*** *can see.*[†]
	John's eyes *see.*[†]
- S indirect:	***Of the car*** *stinks.*[†]
	The chili's taste *is very spicy.*
- Ex direct and S indirect:	***I*** *delicious **of this cake**.*[†]
	I *like **the taste of this cake**.*
- Ex indirect and S direct:	***To me*** *delicious **this cake**.*[†]
- Ex and S direct:	***I*** *delicious **this cake**.*[†]
	I *like **this cake**.*
- Ex and S indirect:	***To me*** *delicious **of this cake**.*[†]

[†] *These examples do not represent possible English sentences. They illustrate types of structure known to occur in other languages.*

(2) Relations

(2a) Property/evaluation lexicalisation

Is property/evaluation information encoded in the verb?

Property/evaluation information may be expressed in the clausal head, i.e., the verb. For example, *This flower **stinks***. Or this information may be expressed elsewhere in the clause: *This flower **smells** quite **fragrant***. To distinguish these, we adopt Slobin's distinction between 'P-in-Verb' (PiV) versus 'P-in-Nonverb' (PiN; offered as an alternative to Talmy's 'verb-framing' versus 'satellite-framing').

PiV: The property/evaluation information is all in the verb.

> *I **fragrant** this flower.* (Lao pattern)
> *This flower **stinks**.* (Standard in many languages, very rare in English.)

PiN: The property/evaluation information is expressed in an element other than the verb, in some kind of complement or adjunct.

> *I **find** this flower **fragrant**.*
> *This flower **is stinky**.*
> *This soup **tastes salty**.*

(2b) Property/evaluation expression

Are there constraints on expression of the property of the source and/or its evaluation? The following discussion exemplifies the kinds of constraints you may find.

> In English, if Ex is in high prominence, it is *not possible* to express property/evaluation.

John can see (*beautiful).
Peter looked at the birds (*beautiful/red/small).
John heard her voice (*thin).
Do you taste this coffee (*bitter)?

On the other hand, if S is in high prominence, it is *obligatory* to express property/evaluation.

The car looks *(red).
The birds looked *(beautiful/red/small) to Peter.
Her voice sounded *(thin) to John.
The coffee tastes *(bitter).

Note how the use of a perception verb (e.g., *look* versus *is*) achieves a kind of modal distancing from commitment to the truth of the propositional content of the property/evaluation component. 'It is red' does not equal 'It looks red (to someone)'. This opposition runs across the board in English:

It is red versus *It looks red.*
It is high versus *It sounds high.*
It is fragrant versus *It smells fragrant.*
It is bitter versus *It tastes bitter.*
It is rough versus *It feels rough.*

A hypothesis for English, then, is that explicit expression of property/evaluation is associated with prominence of S. This is not, however, the case in Lao.

sèèng3   beng1   nok1   ngaam2
S   look   bird   look-good
'Saeng looked at the bird beautiful.' ('Saeng found the bird beautiful to look at.')

(2c) Valency alternation

What are the possibilities for valency alternations?

For instance, when property/evaluation is expressed in the verb, are some verbs strictly transitive, others strictly intransitive? Are they ambitransitive? If so, are they of the S=O ('unaccusative') type or of the S=A ('unergative') type?

Lao has a set of inherently positively valenced terms of perception (*ngaam2* 'looks good', *muan1* 'sounds good', *hòòm3* 'smells good', *sèèp4* 'tastes good', *khak1* 'feels good'). These are S=O ambitransitive or unaccusative. That is, they can be used monovalently with S as subject or bivalently with Ex as subject:

man2 ngaam2 'It looks-good.' vs. *kuu3 ngaam2 man2* 'I look-good it.' ('To me it looks good.')
man2 muan1 'It sounds good.' vs. *kuu3 muan1 man2* 'I sound-good it.' ('To me it sounds good.')
man2 hòòm3 'It smells good.' vs. *kuu3 hòòm3 man2* 'I smell-good it.' ('To me it smells good.')
man2 sèèp4 'It tastes good.' vs. *kuu3 sèèp4 man2* 'I taste-good it.' ('To me it tastes good.')
man2 khak1 'It feels good.' vs. *kuu3 khak1 man2* 'I feel-good it.' ('To me it feels good.')

It is also possible to have S in subject position, with sensory organ fine in the case of good-looking and good-sounding but not for good-smelling and good-tasting.

man2 ngaam2 taa3 kuu3 'It good-looking eye me.'

man2 muan1 huu3 kuu3 'It good-sounding ear me.'
??man2 hòòm3 dang3 kuu3 'It good-smelling nose me.'
??man2 sèèp4 paak5 kuu3 'It good-tasting mouth me.'

(3) Further points to think about

A few further points might turn up something interesting in your language.

Person effects; e.g. *It sounds high to **me*** sounds better than *It sounds high to **you***.

Modality effects: Sometimes modality is constrained; e.g. English E-only structures require or at least prefer the inclusion of *can* (e.g., *He can't see, I can hear, Can you smell?*); and then it is still constrained (*??I can taste, ??He can't feel*).

Agentivity effects: Sometimes agentivity is entailed by the construction (esp. when E is prominent).

Aspect effects: Possible interactions among constructions and lexical items determining or constraining aspectual value (state, activity, achievement, accomplishment).

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