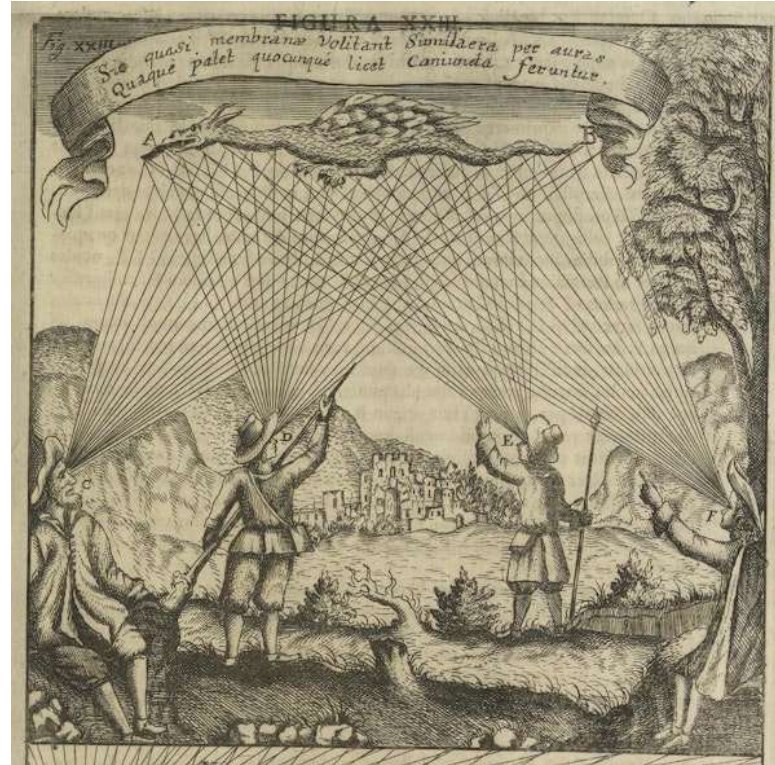


# *Looking outwards and hearing inwards:* on SENSORY PATH in a typological perspective

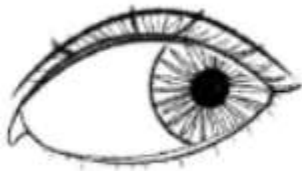
*Oculus Artificialis Teledioptricus  
Sive Telescopium*  
J. Zahn, 1685



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*Emerging Topics in Typology*  
June 5, 2025

(1) She **threw a glance in the direction** of the tree.

(2) A tree **came into her view**.



(3) He **listened to** the sounds of music.

(4) The sounds of music **leapt at him**.

# Outline of the talk

## **1. Background**

- 1.1. The notion of SENSORY PATH
- 1.2. Studies on particular languages
- 1.3. Research questions

## **2. Methodology**

- 2.1. Scope of the study and data sources
- 2.2. Language sample
- 2.3. Observed predicate types

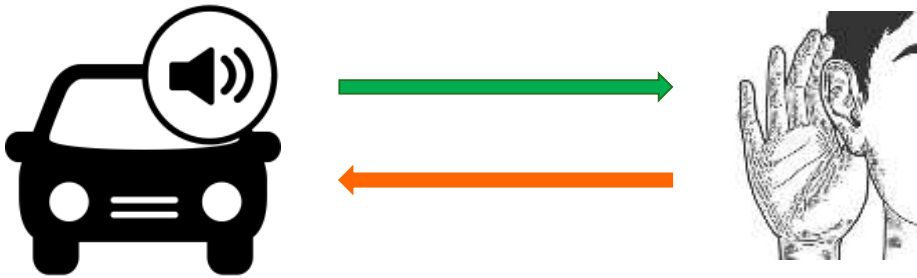
## **3. Preliminary results**

## **4. Possible motivations**

# The notion of SENSORY PATH (Talmy 1996; see also Lakoff 1993)

## EXPERIENCED → EXPERIENCER

*I can hear the noise from the street  
(from where the car is parked).*



In this talk, I am going to use the terms **EXPERIENCER→** vs **EXPERIENCER←** while referring to the two directionalities (Aquilina accepted)

## EXPERIENCER → EXPERIENCED

*I can hear the noise from the balcony  
(from where I'm standing).*

## SENSORY PATH in particular languages

Are there any factors predicting the directionality of SENSORY PATH (EXP→ versus EXP←)?

### ❑ SENSORY MODALITY (vision versus hearing)

**Finnish:** Huumo (2010)

**English:** Aquilina (in press), Aquilina (2024)

**French, Russian, Thai:** Aquilina & Seifen (in prep.)

Vision favours **EXP→** ((1) *give someone a look*)

Hearing favours **EXP←** ((2) *sounds were coming from outside*)

### ❑ +/- VOLITIONALITY of perception

Volitional perception favours **EXP→** (e.g. (3) *vslusat'sja v muzyky* 'lit. listen oneself into music')

Non-volitional perception favours **EXP←** (e.g. (4) *popast'v pole zrenija* 'lit. get into one's field of vision')

A lexico-grammatical continuum of expressions:

e.g. *i listen **to** music* versus *je **tends mon oreille vers** la musique* (lit. 'i stretch my ear towards the music')

# Research questions

EXPERIENCER → versus EXPERIENCER ←

- (i) Does the observed **asymmetry between vision and hearing** hold for a sample of typologically diverse languages?
- (ii) Are the two directionality patterns distributed differently across instances of so-called ‘**volitional**’ versus ‘**non-volitional**’ perception?

Research scope: *basic perception predicates* (SEE, LOOK, HEAR, LISTEN) and their **argument marking**

|                |                |                |                        |
|----------------|----------------|----------------|------------------------|
| <i>Badr-un</i> | <i>yanzuru</i> | <i>Pilā</i>    | <i>l-guyūm-i</i>       |
| PN - NOM       | look.IPF.3M    | <b>towards</b> | <b>DEF-clouds- GEN</b> |

‘Badr is looking at the clouds.’ Standard Arabic, Afro-Asiatic  
(Mamedshaxov & Kuzin 2024)

- (iii) If such asymmetries are observed, **how can they be explained ?**

# Data and its sources

|                                   |                | Sensory modality    |                       |
|-----------------------------------|----------------|---------------------|-----------------------|
|                                   |                | Vision              | Audition              |
| VOLITIONALITY of a perceptual act | Volitional     | <b>X LOOKS.AT Y</b> | <b>X LISTENS.TO Y</b> |
|                                   | Non-volitional | <b>X SEES Y</b>     | <b>X HEARS Y</b>      |

yet, see Viberg (1984)  
Norcliffe & Majid (2024)

## Data from:

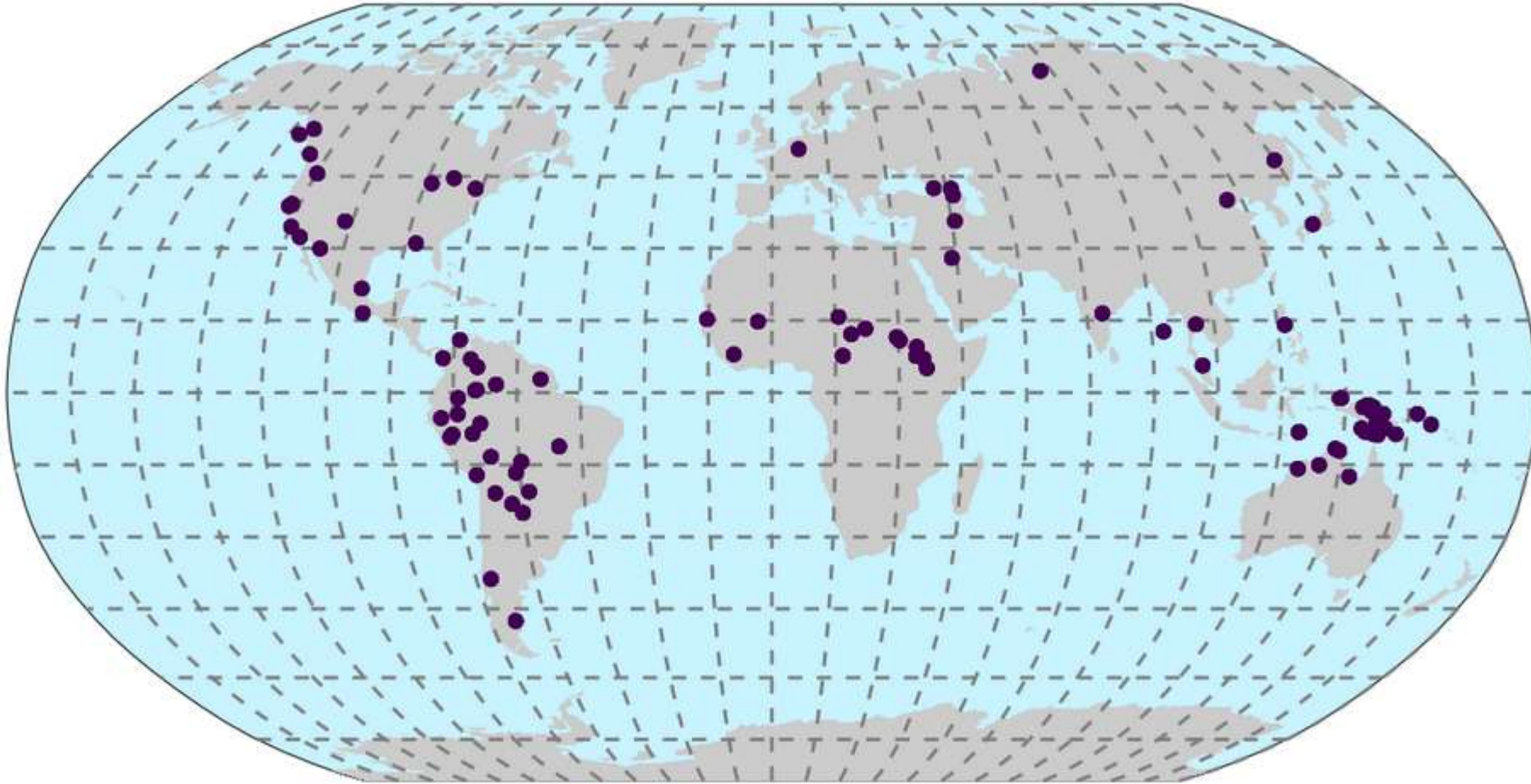
- ❖ Available grammars & dictionaries
- ❖ BivalTyp (Say 2020)
- ❖ ValPal (Hartmann, Haspelmath & Taylor 2013)
- ❖ Personal communication

# Language sample

- ❖ **Current sample:** 96 languages = language families
- ❖ **Aimed sample:** 150 languages sampled according to DV (Rijkhoff et al. 1993) established on the basis of Glottolog language classification

| AREA                     | NUMBER OF LANGUAGES = FAMILIES |
|--------------------------|--------------------------------|
| Africa                   | 14                             |
| Eurasia                  | 9 + 1 (SL)                     |
| Southeast Asia & Oceania | 4                              |
| Australia & New Guinea   | 26                             |
| North America            | 16                             |
| South America            | 26                             |

# Language sample: areal distribution



Map 1: Areal distribution of languages in the sample

## Data : *non-directional* strategies

### ❖ Transitive pattern

(5) Mandarin, Sinitic (Xu 2023)

Zhāngsān zhèngzài tīng guǎngbō

PN PROG listen radio

‘Zhangsan is listening to radio’

### ❖ General LOCATIVE marking

(6) Odoodee, East Strickland (Hays & Hays 2002)

A mə moso-ma egeiso.

1S 1S.POSS house-LOC see.PAST+R.PF

‘I looked at my house.’

# Data : *directional* strategies

## ❖ Case marking

(7) Kwarshi, Nakh-Daghestanian (Gorbunova & Chernov 2023)

šamil gic'a-ha as-za-qo-l  
PN look-PRS cloud-PL-CONT-LAT  
'Shamil is looking at the clouds'.

## ❖ Adpositional marking

(8) Forest Enets, Uralic (Ovsjannikova 2020)

kasa- jʔ                    ŋa dʲez                    seŋiŋa  
man- NOM.SG.1SG sky **in\_the\_direction** look(IPFV).3SG.S  
'My friend is looking at the sky'.

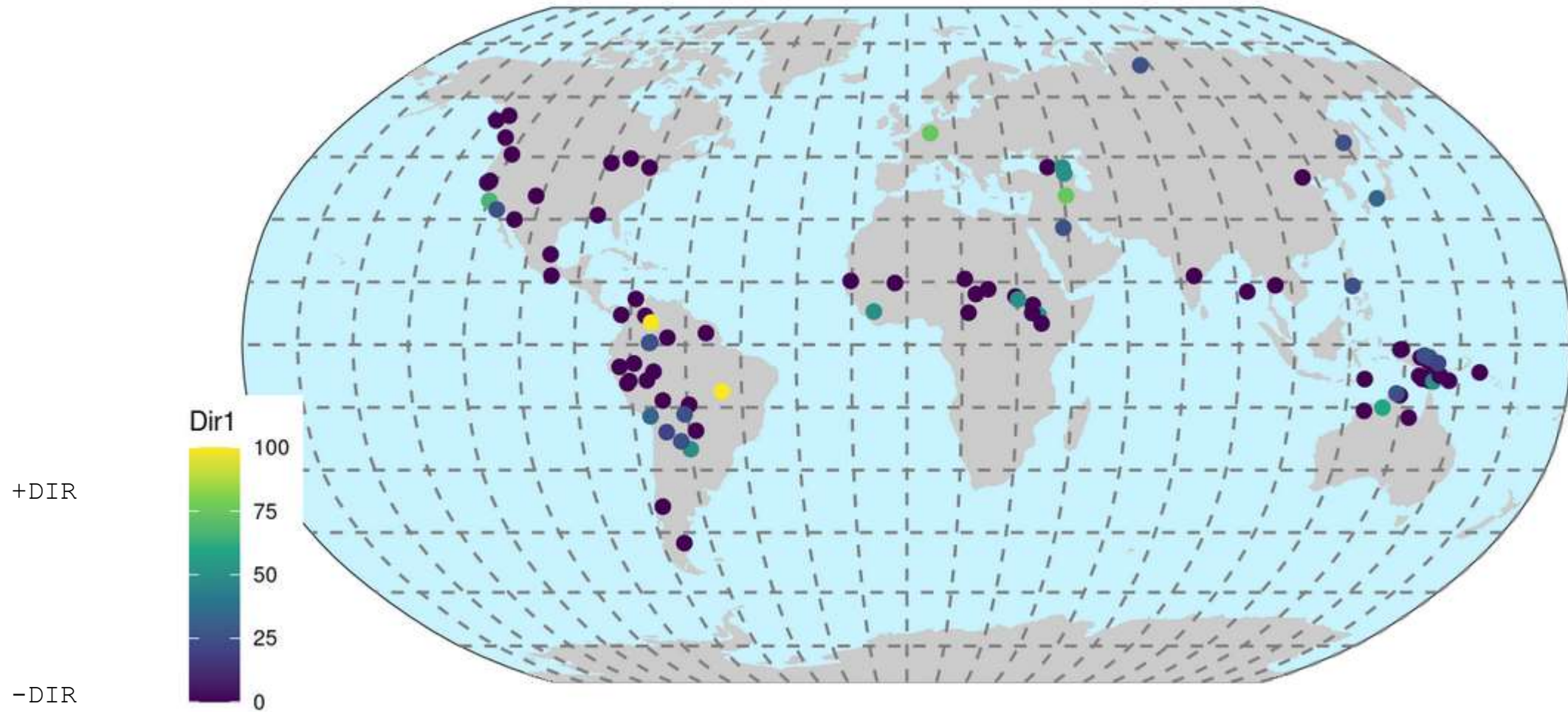
## ❖ Motion predicates

(9) Mano, Mande (Khachaturyan 2023)

ṇ                    ṇ    tóó dō-pèlè                    ī                    mò  
1 SG.EXI 1 SG ear **install-INF** 2SG on  
'I am listening to you'.

*face push on* (Mano, Mande);  
*put eye* (Ulwa, Ramu);  
*eye bite* (Wipi, Eastern Trans-Fly);  
*give ear to* (Sorani Kurdish, Indo-European);  
*hang ear onto* (Azerbaidjani, Turkic).

Result I: TRANSITIVE pattern is a prevailing strategy to encode sensory events



Map 2: Distribution of directional vs non-directional strategies in the sample

## Limitations of the study: non-basic predicates may involve more directionality (but are excluded to ensure comparability)

- (10) *E-mchaha wir ãr ich ye e-key nehe*  
2SG-**put** DET.PL **ear**.PL and NEG 2SG-forget PROSP  
‘Listen and do not forget!’ Lit. ‘Put your ears and do not forget!’

Chamacoco, Zamucoan (Luca Ciucci, p.c. 2025)

- (11) *koneje betsa na-ita-xua-ba-jü kou dipialito*  
when GOAL.UP.ITV ?-**vision-throw**-REAL-1SBJ EVD? Ripialito  
*nam-ta bo-ka-ina kou*  
way-SG lie-INTR.SG-REAL-VEN.UP EVD?  
‘When I looked up (lit. when I threw the vision upwards), the Ripialito road was nearby’.

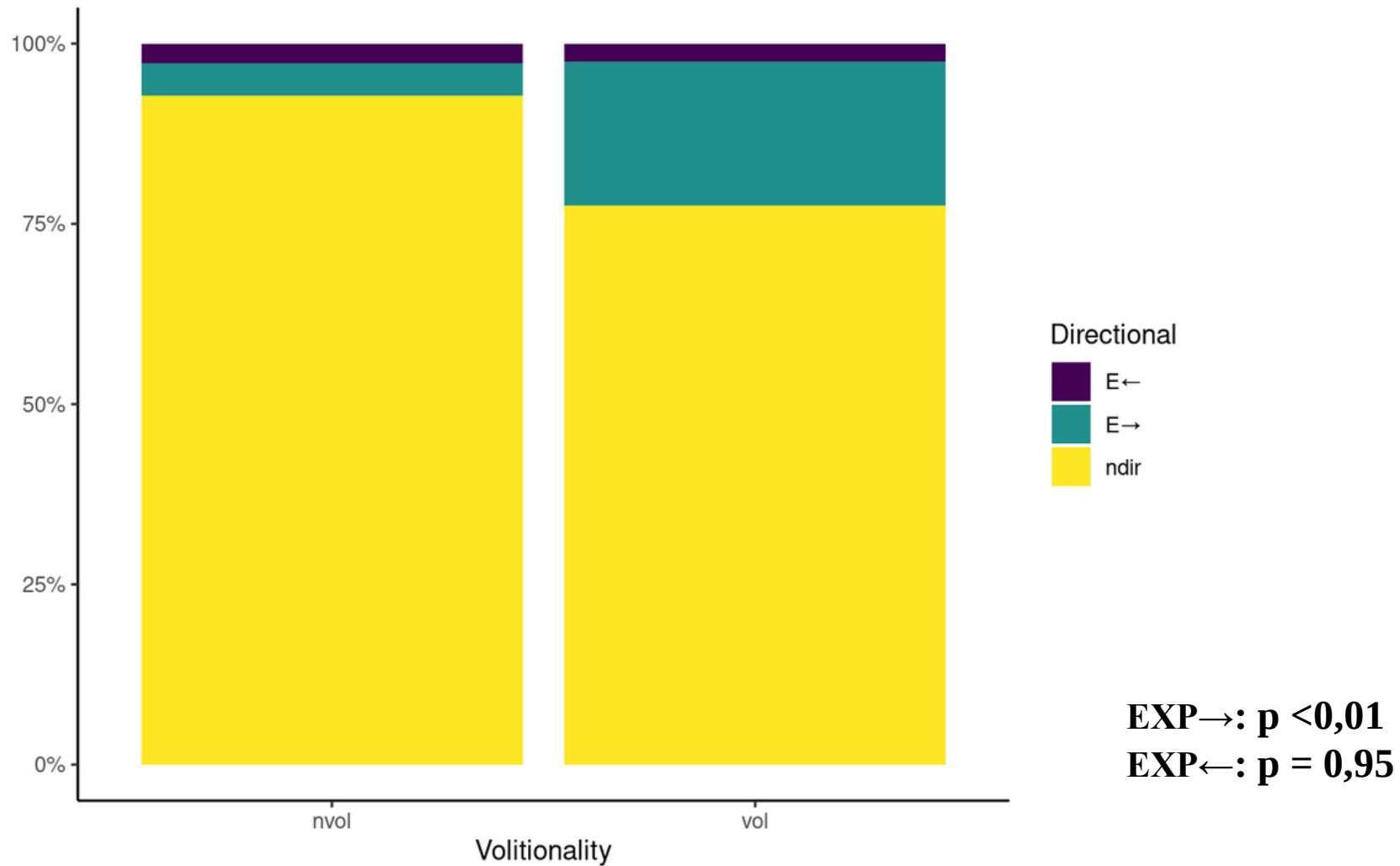
Yamalero, Guahiban (David Ginebra, p.c. 2025)

- (12) *zhōngyú mǎ de língdāng shēng chuán dào le tā de ěrduǒ zhōng*  
finally horse POSS bell sound **reach** RES ASP 3sg POSS **ear** in  
‘Finally, the sound of the horse’s bell reached his ears.’

Mandarin, Sinitic (Kevin Zhang, p.c. 2025)

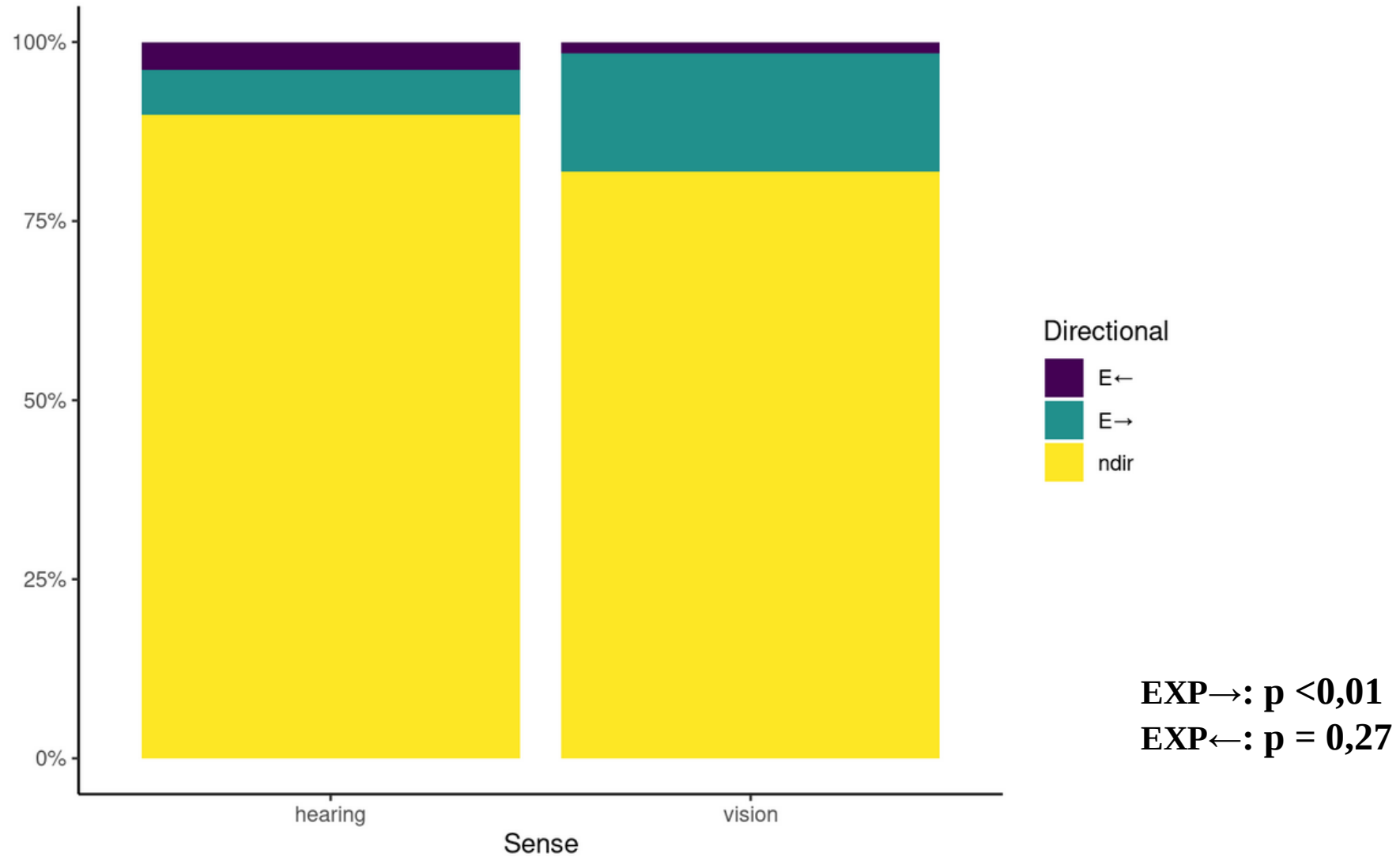
Q II: Does VOLITIONALITY predict the choice of directionality?

Result II: VOLITIONALITY predicts **EXP**→ but not **EXP**←  
+VOLITIONAL favours **EXP**→



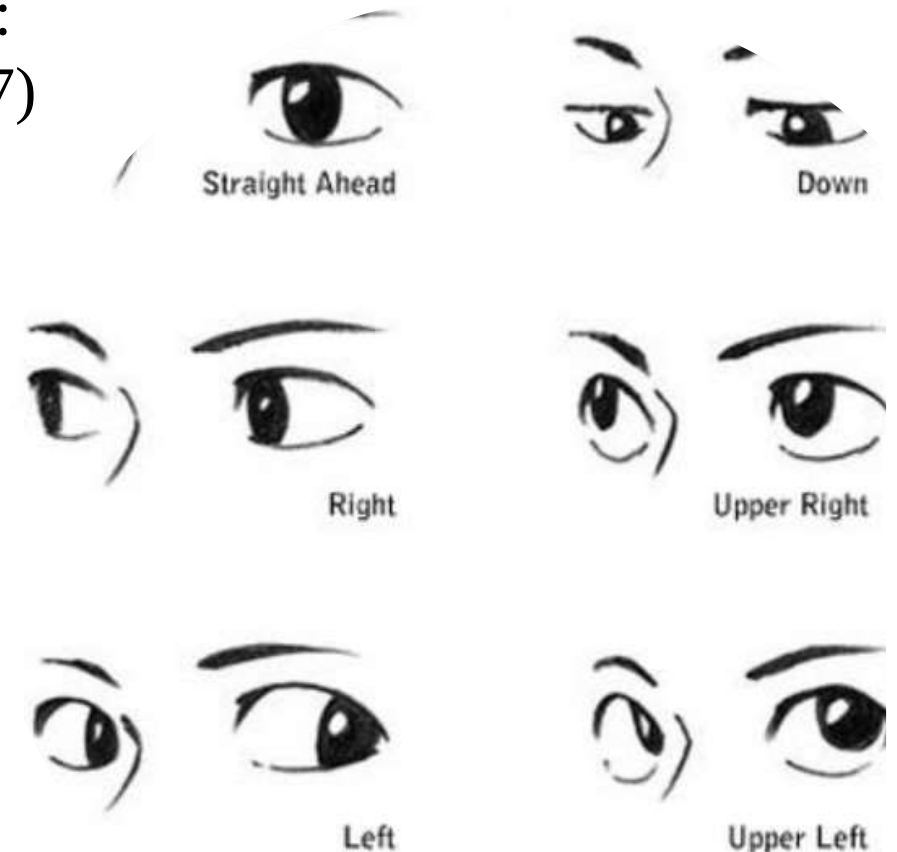
Q III: Does SENSORY MODALITY predict the choice of directionality?

Result III: SENSORY MODALITY predicts **EXP**→ but not **EXP**←  
VISION favours **EXP**→



# Possible motivations for EXP→ in VISION: physiological explanation

- ❖ Degree of control over the percept in vision VS hearing:  
**active versus passive stance of the EXP** (Enghels 2007)



# Possible motivations for EXP→ in VISION: cultural explanation

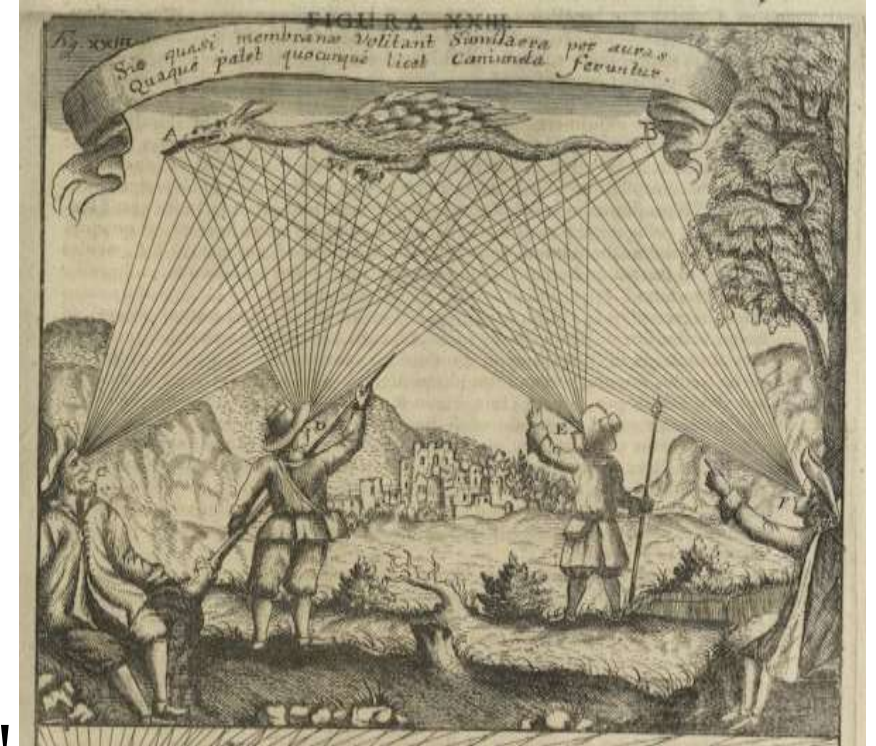
Democritus, back in the 5th – 4th century BC,  
opposes vision to hearing:

*“Hearing is not like sight, which **sends the vision out to the object and receives the apprehension of the object back in exchange [...]** ; rather, as Democritus says, it is a **receptacle** of words, which **awaits the sound like a container. The sound penetrates and flows in [...]**”.*

(Taylor 1999, p.121, cited from Chion 2016, p.251).

*Extramission theory of vision: **seeing = sending beams out of the eyes!***  
(Talmy 2000: 124-126)

See Winner & Cottrell (1996) on contemporary folk models of perception.



“Oculus Artificialis Teledioptricus  
Sive Telescopium”, J. Zahn, 1685



"A Voice in the Dark"

Lettered by: Artie Simek

Written by: Larry Lieber

Pencilled by: Paul Reinman

## Conclusions

1. For *basic perception predicates* **languages predominantly use TRANSITIVE pattern**.  
Studies on idiomatic expressions (i.e. *shoot a glance at*) have proven to be more informative.
2. However, for directional predicates, **VISION indeed privileges EXP→**.  
**No significant correlation** between **HEARING and EXP ←** has been found.
3. Moreover, as expected, **+VOLITIONALITY correlates with EXP →**.  
**No significant correlation** between **-VOLITIONALITY and EXP ←** has been found.
4. These findings go in line with previous research on SENSORY PATH in particular languages and suggest a cross-linguistic tendency.

Sorani Kurdish, Indo-European (Amadeh 2023)

- (13) *Hîwa xerîk-e*                      *çaw le*              *hewr-ek- an*              *de-k-a*  
PN   busy-be.PRS.3SG eye **from** cloud- DEF-PL    IND-DO.PRS-3SG  
'Hiwa is looking at the clouds.'

5. A combination of factors could explain the directional asymmetry between VISION and HEARING:
  - different control over the stimuli in VISION vs HEARING;
  - folk models of perception (influenced by *extramission theories*).

# Thank you!

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- Rémi Anselme for the statistics!

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