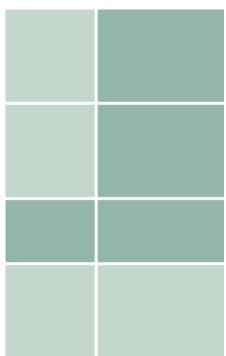




# Psych epiphenomena. A typology of the interplay of valence orientation and syntactic canonicity.

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# Outline

- 1. Introduction: The psych alternation cross-linguistically
- 2. Method: Feelings and how to make people talk about them
- 3. Results & Discussion
- 4. Conclusion & Outlook



- Like other verbal domains, the psych domain is characterized by the existence of alternating stimulus- and experiencer-directed structures:
- (1) a. Global warming preoccupies George.
  - b. George is preoccupied with global warming.

- (2) a. Global warming worries George.
  - b. George worries about global warming.



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- These alternations seem to be widespread
- Languages differ with respect to the morphological structure of the verbal inventory in the psych domain



- This seems to fall squarely within the parameters of valence orientation typology (Nichols et al. 2004):

# 1. Intransitivizing languages

a. Greek mediopassive
x enđiaféri y 'x interests y'
y enđiaférete ja x 'y is interested in x'

# 2. Transitivizing languages

- a. Turkish causativization y x *sevin-di* 'y is happy about x'
  - x y sevin-**dir**-di 'x makes y happy'

b. German reflexive, stative passive

x ärgert y 'x annoys y' y ärgert **sich über** x 'y is annoyed by x' **~** 

- b. Yucatec causativization *chi'chnak ti'* x y 'y is annoyed about x'
- chi'chnak-**kuns** y x 'x annoys y'
- **3. Underspecified (Double derivation, auxiliary change, conversion, mixed)**
- a. Hungarian double derivation
   b. megrém-ít x y 'x frightens y' megrém-ül y x-tól 'y gets frightened by x'
- b. English conversion
  x worries y
  y worries about x



 At least for languages with a directed alternation, established areal distributions seem to hold in the psych domain as well:

Transitive FO

(3)

#### Icelandic (Europe – Intransitivizing)

Transitive E0 $\rightarrow$	Intransitive ES
<i>gleðja</i> 'please'	<i>gleðja-st</i> 'please-мıd'
heilla 'fascinate'	heilla-st 'fascinate-MID'
<i>hryggja</i> 'sadden'	hryggja-st 'sadden-мıD'

(4)

#### Korean (Asia – Transitivizing)

Intransitive FS *nollata* 'be.surprised' sulphuta 'be.sad'

pwukkulepta 'be.ashamed' pwukkulep-key hata 'be.ashamed-ADVR do' nolla-key hata 'be.surprised-ADVR do' sulphu-key hata 'be.sad-ADVR do'



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- Intransitive ES→Transitive EOpwukkulepta 'be.ashamed'pwukkulep-key hata 'be.ashamed-ADVR do'nollata 'be.surprised'nolla-key hata 'be.surprised-ADVR do'sulphuta 'be.sad'sulphu-key hata 'be.sad-ADVR do'
- Languages of the underspecified type and mixed-strategy languages present a more complex case



(5)

#### Basque (Europe – Auxiliary change)

Transitive EO ↔ nazkatu (edun) 'enrage (AUX.TR)' poztu (edun) 'gladden (AUX.TR)' larritu (edun) 'worry (AUX.TR)' Intransitive ES nazkatu (izan) 'enrage (AUX.INTR)' poztu (izan) 'gladden (AUX.INTR)' larritu (izan) 'worry (AUX.INTR)'

#### Cabécar (Central America – Double deriving) Transitive EO ↔ Intransiti

Iransitive EO ↔ suá-w-a\_'fear-CAUS-INF' katsë-w-a\_'rejoice-CAUS-INF' sh<u>iá</u>-w-a\_'broken-CAUS-INF' Intransitive ES suá-n-a\_'fear-MID-INF' katsë-n-a\_'rejoice-MID-INF' sh<u>iá-n-a</u>'broken-MID-INF'

(7)

(6)

# Marathi (Asia – Auxiliary change)

Transitive EO ↔ santāp āṇ-ṇē 'anger bring-INF' ānanda dē-ṇē 'happiness give-INF' kiļas āṇ-ṇē 'disgust bring-INF'

Intransitive ES santāp yē-ņē 'anger come-INF' ānanda hō-ņē 'happiness happen-INF' kiļas yē-ņē 'disgust come-INF'



(8)

#### Finnish (Europe – Mixed strategies)

Intransitive ES  $\leftrightarrow$ ärsy-yntyä 'irritate-INCH' ärsy-ttää 'irritate-CAUS' huolest-ua 'worry-INCH'

Intransitive ES huolest-ua 'worry-INCH'

Transitive EO huvi-ttaa 'fun-caus' **Transitive EO** huole-ttaa 'worry-CAUS'

Transitive EO hermost-ua 'nervous-INCH' hermost-u-ttaa 'nervous-INCH-CAUS' huolest-u-ttaa 'worry-INCH-CAUS'

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– Why focus on the psych domain?



- Out of the two alternants created, EO verbs may show exceptional syntactic behavior: (Belletti & Rizzi 1988, Pesetsky 1995, Haspelmath 2001, Reinhart 2002, Bayer 2004, Landau 2010, Verhoeven 2014, Temme & Verhoeven 2016, etc.)
  - Linearization
  - Passivization
  - Extraction
  - Binding
  - ..



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(Landau 2010:4)

 These are commonly referred to as "psych properties"



- Crucially, they do not appear in all languages:
- (9) Passive
  - a. Turkish:

Yaya(polistarafından)üz-dür-ül-dü.Pedestrianpolicemanbysadden-CAUS-PASS-PFV

b. Icelandic:

\*Vegfarand-inn var gladd-ur (af lögreglumann-inum). Pedestrian-NOM.DEF was gladdened-NOM by policeman-DAT.DEF ((a) taken from Verhoeven 2008:88)

# (10) Forward binding

a. Chinese:

Lăoshī hé xuéshēng (wúyìjiān) xiānghù jīnù-le. Teacher and student unconsciously each.other enrage-PFV

b. German:

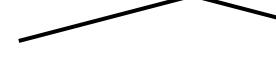
\*Peter und Paul wundern/interessieren sich gegenseitig. Peter and Paul astonish/concern REFL each.other

(Verhoeven 2010:112f.)29



# Further typological difference

Ls with a subclass of EO verbs with exceptional syntactic properties



<u>yes</u>

German Greek Icelandic Hungarian <u>no</u> (at least for ACC EOs)

Chinese Turkish Yucatec Maya Korean

(see Verhoeven 2010, 2014, Temme & Verhoeven 2016)



# Further typological difference

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German Greek Icelandic Hungarian

intransitivizing Ls

<u>NO</u> (at least for ACC EOs)

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# transitivizing Ls

(see Verhoeven 2010, 2014, Temme & Verhoeven 2016)



– Central hypothesis:

Transitive EO predicates only exhibit psych phenomena in languages with a significant preference for an intransitivizing alternation in their psych domain.



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 Functional motivation due to semantics of overt causation (Pesetsky 1995)

**Base ES:** Most prominent argument in prominent position, causative EO has clearly allocated functions

**Base EO:** Prominent argument is "downgraded" (Bickel 2006) in unmarked variant



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- Issue of comparability: English translations as tertium comparationis are problematic

Every language imposes its own classification upon human emotional experience, and English words such as anger or sadness are cultural artifacts of the English language, not culture-free analytical tools.

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(Wierzbicka 1992:546)

 Anthropological and psychological research suggests there may be a number of basic emotions elicited by *Universal Antecedent Events* (UAEs, see Boucher & Brandt 1981; Ekman 1999; Hupka et al. 1999)



# Five basic emotion modes: (Johnson-Laird & Oatley 1989, Ekman 1994, Turner 2007)

(11)	(11) HAPPINESS Sub-goals being achieve		delight, like, enjoy, please, charm, enthuse, amuse, interest, fascinate,	
SADNESSFailure of major plan or loss of active goalANGERActive plan obstructed		, ,	sadden, mourn, afflict, depress, grieve, disappoint, bore,	
		Active plan obstructed	annoy, anger, hate, irritate, bother, enrage, frustrate,	
	FEAR Self-preservation goal threatened		fear, frighten, worry, terrify, startle, shock, scare, dread	
	DISGUST	Gustatory goal violated	disgust, nauseate, gross out, repel, offend, appall, horrify,	



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- Simple UAE scenarios are presented orally
- Semantic subcomponents guide elicitation
- Participants describe situations by referring to their own emotional ontologies

# OTDT-UNIL HASITA

# 2. Method

# – Lexical:

- Citation form
- Approximate translations
- Emotion domains
- Lexical sources
- Derivational status of individual forms



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  - Usage in naturalistic declarative sentences
  - Negative evidence: ungrammatical structures
- Pragmatic:
  - Usage restrictions (animacy, WO preferences)
  - Different registers



Language	Bases total	%ES	%EO	%Double
Icelandic	30	6.67	90	3.34
Spanish	119	0	100	0
Korean	59	96.61	0	3.39
Chinese	75	92	2.67	5.34
Tamil	20	85	10	5
Turkish	64	68.75	12.5	18.75
Cabécar	26	29.92	11.54	61.54
Basque	17	5.89	0	94.11
Finnish	60	48.34	33.34	18.34
Bété	0	0	0	0

Table 1. Distribution of base orientation in sample (n = 470 pairs)

base = morphologically less complex alternant (Nichols et al. 2004)



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Intransitivization in European languages vs.
 Transitivization in Asia (Nichols 2004, Cysouw 2011)

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→ Canonicity observed in psych domain (Özsoy 2009, Kutscher 2009, Verhoeven 2014)



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- Nelson (1999) finds that at least a subset of Finnish causativized EO alternants with stative event structure also displays non-canonical behavior (cf. also Pylkkänen 2000)
- Others have argued that at least Finnish passive is uninformative in this regard due to lack of comparability (e.g. Sakuma 2013)



– "Microcosm" of variation within a single language?



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- Word-order effects occur with EO verbs regardless of base orientation:

#### (12) a. **Transitivizing:**

Anttisano-o, että mummo-a ilahdutt-ikirja.Antti:NOM say-3.SG that granda-PTV delight-3.SG.PST book:NOM`Antti says that grandma was delighted by the book.'

#### b. Intransitivizing:

Heikkisano-o, että päällikkö-ä huvitt-imainostaulu.Heikki:NOM say-3.SG that boss-PTVamuse-3.SG.PST billboard:NOM`Heikki says that the boss was amused by the billboard.'

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However, they seem to be limited to inanimate stimuli





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- Scope of psych properties in Finnish is not yet established
- Diffusion of psych properties from an "incipient set" in the base EO forms along established lines of event structure?
- Behavior of purely double deriving languages is not clear, but hypothesis predicts that there should be no psych effects



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- Goal: 30 languages from 5 macro-areas



### Do "psych properties" as a concept hold up across a bigger language sample?



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- Construction of parallelized rating studies based on database material
- Statistical evaluation of hypothesis within and across sample languages
- Clear definition of relation to psych effects outside of valence orientation pairs
- Incorporation into a typologically adequate and empirically founded theory of psych expressions

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# Tänan tähelepanu eest! Thank you for your attention! Vielen Dank für Ihre Aufmerksamkeit!



# Target domain:SADNESSStimulus:inanimate

#### A girl loses her favorite toy and is unable to find it again.

- 1. [NOW] Which words would best describe the way the loss of his favorite toy makes the girl feel?
- 2. [SHORT LATENCY] Which words could be used to describe the way the girl felt in the very moment when she noticed that she had lost the toy?
- 3. [HIGH DEGREE] Which words could be used to best describe the way the girl felt if the toy she lost was not only her favorite, but also the only one she owned?
- 4. [ELSE] Which other words might be used to describe the way the girl feels when losing her toy?



Target domain:FEARStimulus:animate

#### A woman encounters a robber.

- 1. [NOW] Which words would best describe the way the loss of his favorite toy makes the girl feel?
- 2. [SHORT LATENCY] Which words could be used to describe the way the robber made the woman feel by suddenly appearing in front of her?
- 3. [HIGH DEGREE] Which words could be used to best describe the way the woman feels about the robber when he pulls a gun on her and threatens to kill her?
- 4. [ELSE] Which other words could be used to describe how the robber makes the woman feel?