

Inchoative states, gradable states and (anti-)causativization in the psych domain: The cases of Spanish and Korean

Paola Fritz-Huechante, Elisabeth Verhoeven
& Julian A. Rott
Humboldt-Universität zu Berlin

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The psych alternation

- Psych verbs participate in a well-known alternation between Stimulus (STM) and Experiencer:

- (1) a. *We puzzled over Sue's remarks.*
b. *Sue's remarks puzzled us.*

(Landau, 2010:68)

Morphological structure of experiencer verbs

- (2) transitive EO basis → intransitive ES derivation
sorprender 'surprise' *sorprender-se* 'surprise-REFL'
(Spanish)
- (3) intransitive ES basis → transitive EO derivation
nollata 'get.surprised' *nolla-key hata* 'get.surprised-ADVR do'
(Korean)

The psych alternation

Directionality has an impact on the semantics:

- Korean:

ES

ADJ./VERB

culkep-ta

'pleased'

INCH.

culkew-eci-ta

'become pleased'

EO

CAUS.

culkep-key hata

'make pleased'

nolla-ta

'get surprised'

nolla-key hata

'make get surprised'

2 groups for ES basic items:
(Pure) States & Inchoative States

- Spanish

EO

(NON-)CAUS. VERB

divertir

'entertain'

sorprender

'surprise'

ES

REFL.

divertir-se

'be/get entertained'

sorprender-se

'get surprised'

INCH./PUNCT

divertir-se

sorprender-se

2 groups for ES derived items:
Inchoative States & Punctual States

Research Questions

- Verbal aspectual ambiguities of psych verbs:
 - **Type of psych verb:**
 - a) Spanish: Inchoative States vs. Punctual States
 - b) Korean: (Pure) States vs. Inchoative States
 - **Type of STM**
 - Agent vs. Causer

Considering the properties of the target languages:

1. Is the event structure of the psych verbs in Spanish and Korean similar in both alternants; i.e. ES and EO?
 2. How far do the thematic structures and (anti-)causativization of psych verbs in Spanish and Korean bear on the lexical aspectual properties of transitive & intransitive alternants?
- **General idea:** causativity implies agentivity (i.e. agentive human subject).
 - Then, overtly causative EO verbs of transitivity languages (Korean) are potentially agentive.
 - And intransitivizing languages (Spanish) can be semantically (non-) causative.

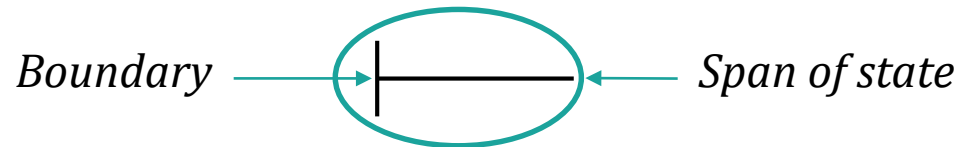
Outline

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2. Psych verbs in Korean
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 - Semantic diagnostics on event structures
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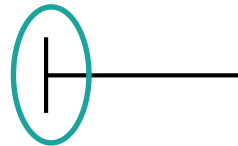
1. Psych verbs in Spanish

– Two types of Spanish Reflexive Psych Verbs (SRPV) (Marín & McNally, 2011):

a) INCHOATIVE STATES: include **both** the onset of the state (i.e. *left-boundary*) and part of the state; e.g.: *divertirse* ‘to be/get entertain’



b) PUNCTUAL STATES: include only the onset of the state; e.g. *sorprenderse* ‘to be/get surprised’



– Inchoativity **also** has an impact on the transitive alternants of the verbs (Marín, 2011):

- Initial left-boundary +
- Causative factor

1. Psych verbs in Spanish

– DAT-ACC Experiencer alternation: *inchoative state reading* and *punctual state reading* in EO verbs.

– **DAT constructions**

- Nominative argument ([+/-animante]) = T/SM
- STM = not volitional
- Agentivity restriction (no volitional agents)

(4) * *A María le asustó una vez Juan.*
to María CL.DAT frighten.PRT.3S one time Juan
'Juan frightened María once.'

(Fábregas et al., 2017:33)

– **ACC constructions**

- Animate external argument
- Causer (agent)
- No agentivity restriction

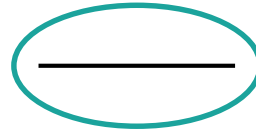
(5) *A María la asustó una vez Juan.*
to María CL.ACC frighten.PRT.3S one time Juan
'Juan frightened María once.'

(Fábregas et al., 2017:33)

2. Psych verbs in Korean

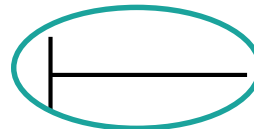
- a) (PURE) STATES: genuine adjectives (i.e. pure gradable states); e.g. *culkepta* 'pleased'

(6) *Mina-nun/ka (Minho-lul manna-se) culkew-ess-ta.*
Mina-TOP/NOM Minho-ACC meet-because pleased-PST-DECL
'Mina was pleased because she met Minho.'



- b) INCHOATIVE STATES: inherently inchoative (i.e. initial zero-marked BECOME operator); e.g. *nollata* 'get surprised'

(7) *Mina-nun/ka (Minho ttaymwuney) nolla-ss-ta.*
Mina-TOP/NOM Minho because surprised-PST-DECL
'Mina got surprised because of Minho.'



- Two types of change of state (CoS) verbs - inchoativity (Choi, 2015; Choi & Demirdache, 2014).

- a) Pure States: atelic items.
b) Inchoative States: inception of the CoS with no inherent culmination in aspectual meaning.

2. Psych verbs in Korean

– ACC-CAUS constructions:

- Periphrastic structure *-key hata*
- Typically agentive
- Animate STM = volitional acting agent
- Inanimate STM = Causer

(Temme & Verhoeven, 2016)

(8) *Mina/soli-nun/ka Minho-lul nolla-key hay-ss-ta.*
Mina/noise-TOP/NOM Minho-ACC get.surprised-ADVR do-PST-DECL
'Mina/the noise made Minho get surprised.'

– DAT EO constructions:

- case alternation with ES adjectives/verbs between:
 - (a) EXP-DAT and STM-NOM
 - (b) EXP-NOM and STM-NOM

(not included in this study; for more details, see B-S. Yang, 1994; I-K. Kim, 2008).

3. Non-culmination readings

- AGENT CONTROL HYPOTHESIS (ACH):
 - Agentive external argument allows a *non-culmination* reading with CoS verbs (i.e. *intentional agent*).
 - Inanimate Causers force a *culmination* (CoS) reading.
- } **Telic** items

(for Mandarin: Lin, 2004; Demirdache et al., 2017; Korean: Beavers & Lee, in prep; Choi & Demirdache, 2014; German: Martin & Schäfer, 2017; among others).

- In the psych domain: default interpretation = culmination & **atelic** verbs.

- (9) a. The teacher annoyed Anne, but she didn't notice it.
b. The report annoyed Anne, #but she didn't notice it.

We propose:

- In (9a): **Non-inception** of the CoS is a possible reading. Negation is not a contradiction.
- In (9b): Causation and **inception** of the CoS cannot be separated. Negating the CoS generates a contradiction.

3. Non-inception readings

- Semantics of the verb has an impact on the CoS:
 - Punctuality refers to a non-gradable (binary) scale: just two states $\neg\emptyset$ and \emptyset (Only possible change from $\neg\emptyset$ is \emptyset) (Beavers & Lee, in prep.).
 - Non-punctuals correlate with changes along a gradable scale.
- Agentive ongoing causation event = left boundary & its effect are independent of their coming into existence (Martin, 2016).
- In the psych domain (based on Marín et al, in prep.):
 - INCHOATIVE/(PURE) STATES:
 - Agentive causation: ongoing event e (e.g. (9a)) indicates the action of the STM in order to annoy Anne; i.e. the preceding annoyance state of the EXP. No contradiction on 2nd clause.
 - Non-agentive causation: event depends on the effect to come into existence (Martin, 2016). Realization of the event (e.g. (9b)) entails the inception of state (being annoyed). CoS takes place.
 - PUNCTUAL STATES: event structure of the verbs (i.e. binary scale) obliges the inception and CoS in the Experiencer. Inception cannot be cancelled neither with agentive/non-agentive causation.

3. Non-inception readings

- SPANISH
 - INCHOATIVE STATES: agenthood of STM relevant for the N-INC of the CoS.
 - PUNCTUAL STATES: agenthood of STM not relevant factor for the N-INC of the CoS. Aspect of the lexical item cancels N-INC.
- KOREAN
 - (PURE) STATES/INCHOATIVE STATES: agenthood of STM relevant for the N-INC of the CoS.

4. Methodology

- Items from an inventory of alternating psych verbs.
- Inventory created by a survey for each language featuring the basic emotion domains (i.e. happiness, sadness, anger, fear and disgust).
- **Semantic diagnostics on event structures**
- Tests on inchoativity/punctuality, telicity, dynamicity, stativity and scalarity (Dowty, 1979; for Spanish, Fábregas & Marín, 2015; Marín & McNally, 2011; for Korean, Beavers & Choi forthc.; Choi 2015; Choi & Demirdache 2014; for Scalarity, Kennedy & McNally, 2005; Choi & Demirdache 2014).
- All tests were conducted with several native speakers of the languages.

4. Methodology-Semantic Tests

– Inchoativity

SPANISH

Quantificational adverbial *siempre que* ‘whenever’: reference time interval for interpretation of the clause they modify.

(10) *Siempre que la llamo, Luisa se divierte/sorprende.*

Whenever that her call, Luisa REFL entertain-PRS.3S/surprise-PRS.3S

‘Whenever I call her, Luisa gets entertained/surprised.’

KOREAN

Inchoative marker *-eci*: OK only with (Pure) State (St) items.

Punctual adv. ‘when’: (*pure*) *states*: state starts before adverbial. *Inchoative states*: state starts within adverbial time.

(11) a. *Mina-ka Minho-eykey cenhwahay-ss-ul ttay, Minho-ka culkew-ess-ta.*

Mina-NOM Minho-DAT call-PST-ACC when Minho-NOM pleased-PST-DECL

‘When Mina called Minho, Minho was pleased.’

(MEANING: Minho was already pleased by the time Mina called.)

b. *Mina-ka Minho-eykey cenhwahay-ss-ul ttay, Minho-ka nolla-ss-ta.*

Mina-NOM Minho-DAT call-PST-ACC when Minho-NOM pleased-PST-DECL

‘When Mina called Minho, Miho got surprised.’

(MEANING: Minho was not surprised until Mina called.)

4. Methodology-Semantic Tests

– Telicity

- For/in-adverbials acceptability: *in x time* = telic; *for x time* = atelic.

SPANISH

InSt & Punctual states (PSt): *for*-adverbial compatibility. Typical and iterative reading, respectively.

- (12) *Juan/la película divirtió/sorprendió a Luisa durante/*en toda la tarde.*
 Juan/the movie entertain-PRT.3S/surprise-PRT.3S to Luisa for/in all the afternoon
 'Juan/the movie entertained/surprised Luisa during all the afternoon.'

KOREAN

St: only *for*-adverbial (13a). InSt: compatibility with both *in/for*-adverbials (13b), due to BECOME factor (modeling CoS) (Choi & Demirdache, 2014).

- (13) a. *Mina-nun sip-pwun tongan/*maney culkew-ess-ta.*
 Mina-TOP ten-mins. for/in pleased-PST-DECL
 'Mina was pleased for 10 minutes.'
- b. *Mina-nun sip-pwun tongan/maney nolla-ss-ta.*
 Mina-TOP ten-mins. for/in surprise-PST-DECL
 'Mina was surprised for/in 10 minutes.'

4. Methodology-Semantic Tests

– Dynamicity

SPANISH

Compatibility with *stop*: only with dynamic verbs.

- (14) ?*Juan/la película ha parado de divertir/sorprender a Luisa.*
Juan/the movie has stopped of entertain-INF/surprise-INF to Luisa
'Juan/the movie has stopped entertaining/surprising Luisa.'

KOREAN

Slowly adverbial:

St: unacceptable (15a); InSt: acceptable: Preliminary circumstance speed reading (15b) (Marín & McNally, 2011; Piñón, 1997; contra Choi, 2015).

- (15) a. **Mina-nun cemcem culkew-ess-ta.*
Mina-TOP slowly pleased-PST-DECL
'Mina was slowly pleased.'
- b. *Mina-nun cemcem nolla-ss-ta.*
Mina-TOP slowly surprise-PST-DECL
'Mina got slowly surprised.'

4. Methodology-Semantic Tests

– Stativity

- Progressive Tense: with eventive predicates, not with stative ones.

SPANISH

InSt: unacceptable; PSt: preliminary circumstance reading.

(16) *Juan/la película está divirtiendo/sorprendiendo a Luisa*

Juan/the movie is entertaining/surprising to Luisa

¿y ella se va a divertir/sorprender.

and she REFL goes to entertain-INF/surprise-INF

'Juan/the movie is entertaining/surprising Luisa and she will get entertained/surprised.'

KOREAN

Progressive *-nun-cwung* not compatible with St or InSt.

(17) **Mina-ka ku sanghwang-ey tayhay culkep/nolla-nun-cwungi-ta.*

Mina-NOM the situation-DAT about pleased/surprise-PROG-DECL

'Mina is getting pleased/surprised about the situation.'

Table 1: SUMMARY OF SPANISH VERB INVENTORY BY EMOTIONAL DOMAIN AND VERB TYPE

EM. DOMAIN	INCHOATIVE ST.	ENG. TRANSLATION	PUNCTUAL ST.	ENG. TRANSLATION
HAPPINESS	<i>divertir</i>	entertain, amuse	<i>sorprender</i>	surprise
	<i>contentar</i>	please, make happy	<i>impresionar</i>	impress
SADNESS	<i>amargar</i>	depress	<i>desalentar</i>	demotivate
	<i>deprimir</i>	depress	<i>conmocionar</i>	affect deeply
ANGER	<i>molestar</i>	bother	<i>alterar</i>	agitate, upset
	<i>disgustar</i>	annoy, upset	<i>enloquecer</i>	drive crazy
FEAR	<i>preocupar</i>	worry	<i>asustar</i>	frighten
	<i>inquietar</i>	make uneasy, worry	<i>espantar</i>	scare away
DISGUST	<i>confundir</i>	confuse	<i>ofender</i>	offend
	<i>incomodar</i>	disturb	<i>escandalizar</i>	scandalize

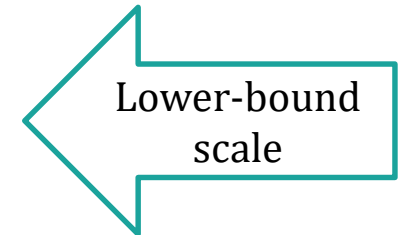
Table 2: SUMMARY OF KOREAN VERB INVENTORY BY EMOTIONAL DOMAIN AND VERB TYPE

EM. DOMAIN	(PURE) ST.	ENG. TRANSLATION	INCHOATIVE ST.	ENG. TRANSLATION
HAPPINESS	<i>kipputa</i>	happy	<i>nollata</i>	get surprised
	<i>culkepta</i>	pleased	<i>sinnata</i>	get excited
			<i>selleyta</i>	get fluttered
			<i>hungi nata</i>	get pleased
SADNESS	<i>koylopta</i>	painful to		
	<i>sulphuta</i>	sad		
ANGER	<i>wenmangsulepta</i>	resentful	<i>michita</i>	drive crazy
	<i>himtulta</i>	hard to	<i>ccacungi nata</i>	get irritated
			<i>hwanata</i>	get angry
FEAR	<i>twulyepta</i>	afraid	<i>sosulachita</i>	get frightened
	<i>mwusepta</i>	scared	<i>kepi nata</i>	get scared
DISGUST	<i>anthakkapta</i>	pitiful to	<i>cichita</i>	get tired
	<i>honlansulepta</i>	confused		

4. Methodology-Scalarity

- Verbs do not have a max. value. Sp. (18a) Kr. (18b).

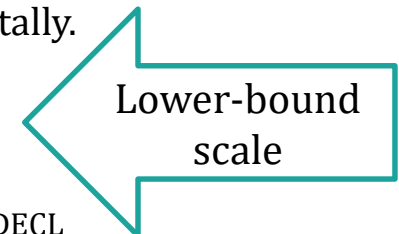
(18) a. *Juan se divirtió/sorprendió más que Luisa.*
 Juan REFL entertain-PRT.3S/surprise-PRT.3S more than Luisa.
 ‘Juan got more entertained/surprised than Luisa.’
 (MEANING: Luisa got entertained/suprised a little too
 ≠ Luisa didn’t get entertained/suprised at all)



b. *Mina-nun Minho-pota te culkew-ess-ta/nolla-ss-ta.*
 Mina-TOP Minho-than more pleased-PST-DECL/surprise-PST-DECL
 ‘Mina got more pleased/surprised than Minho.’ (meaning: same as in Spanish)

- Infelicitous with *completely/totally*. Sp. (19a) Kr. (19b).

(19) a. **Juan divirtió/sorprendió a Luisa completamente/totalmente.*
 Juan entertain-PRT.3S/surprise-PRT.3S to Luisa completely/totally.
 ‘Juan entertained/surprised Luisa completely/totally.’



b. **Mina-nun wancenhi/ta culkew-ess-ta/nolla-ss-ta.*
 Mina-TOP completely/totally pleased-PST-DECL/surprise-PST-DECL
 ‘Mina got pleased/surprised completely/totally.’

4. Methodology-Scalarity

- Felicitous with min. value degree adverbs *a little*. Sp. (20a) Kr. (20b).

(20) a. *Juan divirtió/sorprendió a Luisa un poco.*

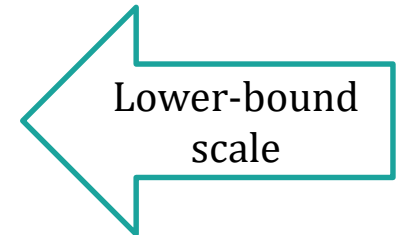
Juan entertain- PRT.3S/surprise-PRT.3S to Luisa a little.

‘Juan entertained/surprised Luisa a little.’

b. *Mina-nun cokum culkew-ess-ta/nolla-ss-ta.*

Mina-TOP a.little pleased-PST-DECL/surprise-PST-DECL

‘Mina got pleased/surprised a little.’



- For Korean:
 - *(Pure) states*: gradable adj. Scale refers to property instantiated at smallest value that follows zero degree at lower-bound of scale.
 - *Inchoative states*: scales refers to **onset** of the result state.
- For Spanish:
 - *Inchoative/Punctual states*: lower-bound scale refers to onset of the result state.

4. Methodology-What about Korean EO causative items?

TESTS	(PURE) STATES	INCHOATIVE STATES
TELICITY		
IN-ADV	<i>after reading</i>	<i>after reading</i>
FOR-ADV	Typical reading	Typical reading
DYNAMICITY		
SLOWLY	Y	Y
STATIVITY		
PROG. TENSE	Y	Y
INCHOATIVITY		
WHENEVER	Onset = time adv.	Onset = time adv.

- *-key hata* alters the aspectual nature of the base predicate.
- What is the scope of the semantic tests in the causativized structures?
- *Again-adverbial* test on *pure & inchoative states* (Alexiadou & Iordăchioaia, 2014; Stechow von, 1996).

(21) *Mina-ka Minho-lul hanpen te culkep-key/nolla-key hay-ess-ta.*
 Mina-NOM Minho-ACC again pleased-ADV/get.surprised-ADV do-PST-DECL
 ‘Mina made Minho pleased/get surprised again.’

MEANING: **REPETITIVE:** Mina made Minho pleased/scared again, and
RESTITUTIVE: Minho was happy/scared again.

4. Methodology-Inception Test

- Based on the ACH (Demirdache & Martin, 2015): parallel experimental design on Spanish and Korean to identify:
 - CoS in the EO
 - Availability of an agentive interpretation of the STM:
 - *Agentive* subjects allow for a *non-inception reading*.
 - *(Inanimate) Causers* do not allow a *non-inception reading*.
- EXPECTATIONS:
 - Spanish: InSt + [+animate] = N-INC ; InSt + [-animate] = INC
PSt + [+/-animate] = INC
 - Korean: St/InSt + [+animate] = N-INC ; St/InSt + [-animate] = INC
- 40 sentences:
 - Dependent variable
 - INCEPTION: Inception reading (INCR) vs. Non-inception reading (N-INCR)
 - Fixed factors
 - STIMULUS: animate (agentive) vs. inanimate (causer)
 - VERBAL ASPECT:
 - SPANISH: Inchoative states vs. Punctual states
 - KOREAN: (Pure) states vs. Inchoative states
- 10 verbs: VERBAL ASPECT factor.
 - 20 Spanish & 20 Korean items.
 - Each appeared twice (STIMULUS factor).
 - No fillers included.

4. Methodology-Inception Test

- Spanish: n. 27 (6 f., 21 m.; age $M = 34,02$)
- Korean: n. 28 (13 f., 15 m.; age $M = 35$)
- *Sample of sentences:*

SPANISH

(22) *Juan/la película sorprendió a María, #pero ella no se dio cuenta y siguió indiferente.*
John/the movie surprise-PRT.3S to Mary but she not REFL gave account
and remained indifferent
'John/the movie surprised Mary, but she didn't realize it and remained indifferent.'

KOREAN

(23) *Minho/ku yenghwa-ka Mina-lul nolla-key hay-ess-ciman,*
Minho/the movie-NOM Mina-ACC get.surprised-ADVR do-PST-but
#ku-nye-nun ku-kes-ul alachay-ci mos-hay-ss-ta.
that-girl-TOP that thing-ACC realize-NEG cannot-do-PST-DECL
'Minho/the movie made Mina get surprised, but she didn't realize it.'

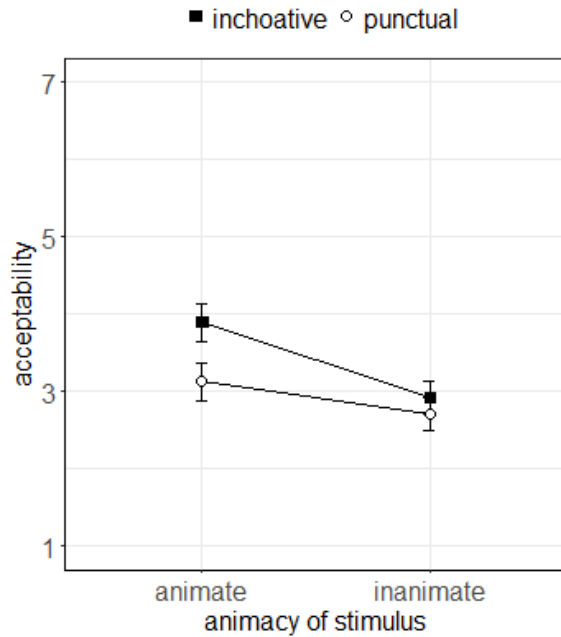
- Likert Scale sentence evaluation: 1 (very bad) to 7 (very good).
- Survey implemented on OnExp (CRC Text Structures at the Georg-August University Göttingen).

5. Results & Discussion

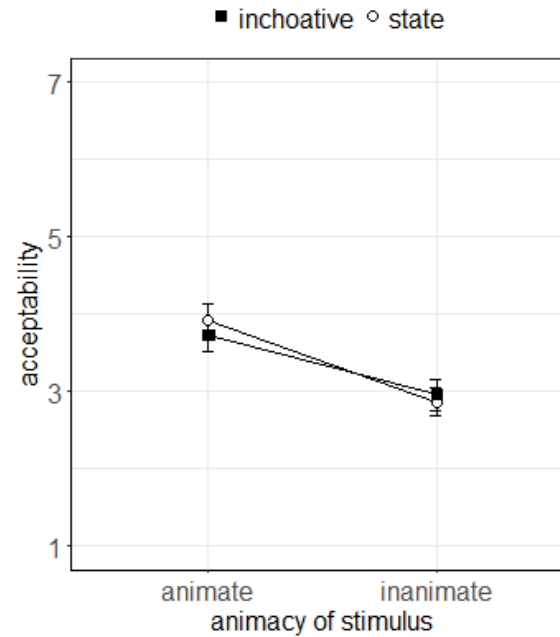


Figure 1: EFFECTS OF 'VERBAL ASPECT' AND 'ANIMACY' OF THE STIMULUS ON 'INCEPTION'

(a) SPANISH



(b) KOREAN



5. Results & Discussion-General Effects

Table 3: LINEAR MODEL FIT ON 'INCEPTION' IN KOREAN (RANDOM FACTORS: 'SPEAKERS' 'VERBS')

effect	estimate	st. error	t-test		model comparison (LogLikelihood)	
			t-value	p	χ^2	p
INTERCEPT	3.7	.2	17.8	< .001		
ASPECT (state)	.2	.1	1.5	.1	.2	.6
STIMULUS (inanimate)	-.8	.1	-6.2	< .001	100.5	< .001
ASPECT^STIMULUS	-.3	.2	-1.6	.1	2.5	.1

Table 4: LINEAR MODEL FIT ON 'INCEPTION' IN SPANISH (RANDOM FACTORS: 'SPEAKERS' 'VERBS')

effect	estimate	st. error	t-test		model comparison (LogLikelihood)	
			t-value	p	χ^2	p
INTERCEPT	3.0	.2	15.9	< .001		
ASPECT (state)	-.8	.1	-5.6	< .001		
STIMULUS (inanimate)	-.9	.1	-7.2	< .001		
ASPECT^STIMULUS	.6	.2	2.9	< .01	8.4	< .01

- Statistic inferences based on generalized linear mixed-effects models. Random factors: SUBJECTS and ITEMS.
- Significance of fixed effects estimated with a log-likelihood test on model comparison.

5. Results & Discussion-General Effects

STIMULUS:

- Both languages:
 - Agenthood of subject makes a N-INCR possible.
 - Inanimate causer cannot cancel inception.
- In line with ACH Hypothesis (cf):

(24) a. *Juan divirtió a María, pero ella no se dio cuenta y siguió indiferente.*

‘John entertained Mary, but she didn’t realize it and remained indifferent.’

b. *La película divirtió a María, #pero ella no se dio cuenta y siguió indiferente.*

‘The movie entertained Mary, but she didn’t realize it and remained indifferent.’

(24a): the initiation of the CoS encoded in the predicate does not occur at any positive degree $d < 1$. No contradiction.

(24b): Outcome occurs almost instantaneously. Sufficient conditions linked to inception. Contradiction (Martin, 2016).

5. Results & Discussion-General Effects

ASPECT:

- Spanish:
 - Punctuality overrules the ACH .
 - PSt: binary scale (CoS from $\neg\emptyset$ to \emptyset) (Beavers & Lee, in prep.).
 - Initial left-boundary: instantaneous CoS.

– Korean:

- Agentivity of the subject **strongly** correlated with intentionality:

“In Korean, there seems to be a strong grammatical constraint that the intentions must be associated with the intuitive referent of the grammatical subject” (Beavers & Lee, in prep.: 25).

- *-Key hata* ambiguous: (a) Resultative reading, (b) Purposive reading (Lee, 2014).
- Cancellation of CoS is allowed.

STIMULUS^ASPECT:

- The type of verb plays a role only with potential agents and not so with causers.
- ASPECT is not just cumulated to the effect STIMULUS, but it only applied in the level of ‘animate’ of the factor STIMULUS.
- This is the source of the interaction effect for Spanish.

6. Summary

- ACH

STM

[+animate]



Non-Inception Reading

[-animate]



Inception Reading

- Psych domain: aspect of verbs seem to play a role on availability of non-inception readings. This turns to be language specific:

SPANISH			KOREAN		
INCHOATIVE ST.	[+animate]	+/- N-INC	INCHOATIVE ST.	[+animate]	+/- N-INC
	[-animate]	- N-INC		[-animate]	- N-INC
PUNCTUAL ST.	[+animate]	- N-INC	(PURE) STATES	[+animate]	+/- N-INC
				[-animate]	- N-INC

- Spanish:

- Inchoative states: in line with ACH.

- Punctual states: punctuality overrules ACH due to the binary scale.

6. Summary

- Korean:
 - (Pure) States and Inchoative states: in line with ACH.
 - Require *intentionality of the subject* by direct causation (Beavers & Lee, in prep.)
 - Both types of verbs: gradable scale.
- **Scalarity:** all items **lower-bound closed scale** (Kennedy & McNally, 2005).
 - Closed scales can have a min. value and lack a max. one = lower-bound closed scale.
 - Psych verbs = atelic with no obvious max. state for an upper endpoint; thus open on the upper end.
 - Korean: St.: Smallest value at lower-bound scale. InSt.: Onset of result state.
 - Spanish: InSt. & PSt.: onset of the result state.
- **Causativization:**
 - Korean: *-key hata* alters the aspectual nature of the base predicate. Scope goes on the light verb *hata*, where the layer for the causative events gets modified and not the resultative state layer.

6. Beyond Spanish and Korean... Finnish



VERB TYPE	ITEM	MORPH. STRUCTURE	TEST
(PURE) STATES	<i>pelä-tä</i> (fear) <i>häve-tä</i> (be ashamed of) <i>säli-ä</i> (feel sorry for)	[stem]-INF [stem]-INF [stem]-INF	Whenever adverbial (25)
INCHOATIVE STATES	<i>ila-htu-a</i> (get delighted) <i>häkelt-y-ä</i> (get overwhelming) <i>turha-utu-a</i> (get frustrated)	[stem]-INCH-INF [stem]-INCH-INF [stem]-INCH-INF	Whenever adverbial (26)
PUNCTUAL STATES	<i>suut-ahta-a</i> (burst out with anger) <i>möks-ähtä-ä</i> (become sulky) <i>säik-ähtä-ä</i> (get startled)	[stem]-MOM-INF [stem]-MOM-INF [stem]-MOM-INF	Slowly adverbial (27)

(25) *Kun soita-n häne-lle, Paula pelkä-ä.*
 when call-1.SG 3.SG-ALL Paula be.afraid-3.SG
 'Whenever I call her, Paula is afraid.'
 (State already instantiated before reference time adverbial)

MOM = Momentane marker (Fromm, 1982)

(26) *Kun soita-n häne-lle, Paula ilahtu-u.*
 when call-1.SG 3.SG-ALL Paula get.delighted-3.SG
 Whenever I call her, Paula gets delighted.
 (State starts within reference time adverbial)

(27) **Paula suut-aht-i hitaasti.*
 Paula burst.out.with.anger-MOM-PST slowly
 'Paula burst out with anger slowly.'

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Appendix

Table 6: AVERAGES OF THE INDIVIDUAL VERBS IN KOREAN



Aspect	Verb	Animate	Inanimate
Inchoative	make get frightened – <i>sosulachita</i>	3.11	2.75
	make get tired - <i>cichita</i>	3.93	2.96
	drive crazy - <i>michita</i>	4.04	2.32
	make excited - <i>sinnata</i>	3.57	3.07
	make get fluttered - <i>selleyta</i>	4.00	3.61
	make get angry - <i>hwanata</i>	3.96	3.29
	make get scared – <i>kepi nata</i>	3.39	2.75
	make get irritated – <i>ccacungi nata</i>	3.75	3.11
	make get pleased – <i>hungi nata</i>	3.61	3.21
	make get surprised - <i>nollata</i>	3.89	2.54
	(Pure) State	make afraid - <i>twulyepta</i>	4.11
make confused - <i>honlansulepta</i>		4.57	3.18
make happy - <i>kipputa</i>		3.71	2.64
make hard - <i>himtulta</i>		3.79	2.50
make painful - <i>koylopta</i>		3.89	3.00
make pitiful - <i>anthakkapta</i>		3.61	2.89
make pleased - <i>culkepta</i>		4.21	3.18
make resentful - <i>wenmangsulepta</i>		3.50	2.36
make sad - <i>sulphuta</i>		4.11	3.07
make scared - <i>mwusepta</i>		3.61	2.89

Appendix

Table 7: AVERAGES OF THE INDIVIDUAL VERBS IN SPANISH



Aspect	Verb	Animate	Inanimate
Inchoative	depress - <i>amargar</i>	3.33	2.89
	confuse - <i>confundir</i>	4.63	3.63
	please - <i>contentar</i>	3.89	2.93
	depress - <i>deprimir</i>	3.52	3.04
	annoy - <i>disgustar</i>	3.70	2.41
	entertain - <i>divertir</i>	3.93	3.07
	disturb - <i>incomodar</i>	3.93	2.81
	worry - <i>inquietar</i>	4.11	3.19
	bother - <i>molestar</i>	4.22	2.63
	worry - <i>preocupar</i>	3.67	2.59
	Punctual	upset - <i>alterar</i>	2.93
frighten - <i>asustar</i>		2.93	2.56
affect deeply - <i>conmocionar</i>		2.70	2.81
demotivate - <i>desalentar</i>		3.81	2.78
drive crazy - <i>enloquecer</i>		2.52	2.56
scandalize - <i>escandalizar</i>		2.96	3.07
scare away - <i>espantar</i>		2.93	2.26
impress - <i>impresionar</i>		3.41	2.59
offend - <i>offender</i>		3.81	2.81
surprise - <i>soprender</i>	3.33	3.15	