What does take to culminate? Morphological directionality and semantics of the psych-alternation

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The psych alternation

Psych verbs participate of 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)

<table>
<thead>
<tr>
<th>Morphological structure of experiencer verbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>(2) transitive EO basis → intransitive ES derivation</td>
</tr>
<tr>
<td><em>angustiar ‘distress’</em> → <em>angustiarse ‘distress:REFL’</em></td>
</tr>
<tr>
<td>(Spanish)</td>
</tr>
<tr>
<td>(3) intransitive ES basis → transitive EO derivation</td>
</tr>
<tr>
<td><em>koylopta ‘be.distressed’</em> → <em>koylopkey hata ‘be.distressed:ADVR do’</em></td>
</tr>
<tr>
<td>(Korean)</td>
</tr>
</tbody>
</table>
The psych alternation

- Directionality has an impact on the semantics:

  • Korean:

    | ES    | INCH. | EO        |
    |-------|-------|-----------|
    | ADJ./VERB |       | CAUS.     |
    | kippu-ta' | kipp-e-ci-ta | kippu-key hata |
    | 'happy'   | ‘become happy’ | ‘make happy’   |
    |          | nolla-ta     | nolla-key hata |
    |          | ‘get surprised’ | ‘make get surprised’ |

    ES basic items can be classified in 2 groups: *pure states and inchoative states*.

  • Spanish

    | ES    | INCH./PUNCT |
    |-------|-------------|
    | REFL. |             |
    | divertir | divertir-se  |
    | ‘entertain’ | ‘be/get entertained’ |
    | sorprender | sorprender-se |
    | ‘surprise’ | ‘get surprised’ |

    ES *REFL* items can be classified in 2 groups: *inchoative states and punctual states*. 
Research Questions

- Verbal aspectual ambiguities of psych verbs:

  - **Type of psych verb**:
    a) Spanish: Inchoative States vs. Punctual States
    b) Korean: 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. Does the morphological realization of psych verbs in Spanish and Korean have an impact on their event structure?

- **General idea**: causativity implies agentivity (i.e. agentive human subject).

  - Then, overtly causative EO verbs of transitivizing languages (Korean) are potentially agentive.
  - And intransitivizing languages (Spanish) can be semantically (non-) causative.
Outline

1. Psych verbs in Spanish
2. Psych verbs in Korean
3. Non-culmination readings
4. Methodology
   - Semantic diagnostics on event structures
   - Culminativity test
5. Results and Discussion
6. Summary
7. References
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’

  Boundary ⟷ Span of state

  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

(see Section 4 – Semantic tests).
1. Psych verbs in Spanish

- **DAT-ACC** Experiencer alternation: *inchoative state reading* or *punctual state reading* in EO verbs, respectively.

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

\[(4) * A \text{María} le asustó una vez Juan.\]
\[(5) A \text{María} la asustó una vez Juan.\]

\(\text{to María CL.DAT frighten.PRT.3S one time Juan} \)
\(\text{to María CL.ACC frighten.PRT.3S one time Juan} \)

‘Juan frightened María once.’  
‘Juan frightened María once.’

(Fábregas et al., 2017:33)

- **ACC constructions**
  - Animate external argument
  - Causer (agent)
  - No agentivity restriction

(Fábregas et al., 2017:33)
2. Psych verbs in Korean

a) **STATES**: genuine adjectives (i.e. pure gradable states); e.g. *kipputa* ‘happy’

\[(6) \text{Mina-nun/ka (Minho-lul manna-se) kipp-ess-ta.}\]
\[
\text{Mina-TOP/NOM Minho-ACC meet-because happy-PST-DECL}
\]
\[\text{‘Mina was happy because she met Minho.’}\]

b) **INCHOATIVE STATES**: inherently inchoative; e.g. *nollata* ‘get surprised’

\[(7) \text{Mina-nun/ka (Minho ttaymwuney) noll-ss-ta.}\]
\[
\text{Mina-TOP/NOM Minho because surprised-PST-DECL}
\]
\[\text{‘Mina got surprised because of Minho.’}\]

*Section 6 – Semantic tests, for details on ‘inherently inchoative states’*

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– 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-ADV do-PST-DECL
‘Mina/the noise made Minho get surprised.’

– DAT EO constructions:
  • case alternation between:
    • (a) EXP-DAT and STM-NOM
    • (b) NOM-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 allow a *non-culmination* (NC) reading in CoS verbs (i.e. *intentional agent*).
  - Inanimate Causers force a *culmination* (CoS) reading.

(for Mandarin: Lin, 2004; Demirdache et al., 2017; Korean: Beavers & Lee, in prep; Choi & Demirdache, 2014; German: Martin & Schäfer, 2015; among others).

- In the psych domain: default interpretation = culmination.
  
  (9) a. The teacher annoyed Anne, but she didn’t notice it.
  b. The report annoyed Anne, #but she didn’t notice it.

- In (9a): CoS is only *implied* to satisfy the property in the base world $W_0$. Negation is not a contradiction.
- In (9b): CoS has already happened with a causer. Negating the CoS generates a contradiction.
3. Non-culmination readings

- Semantics of the verb have an impact on the CoS:
  - Inchoativity correlates with changes along a gradable scale.
  - Punctuality refers to a non-gradable (binary) scale (Beavers & Lee, in prep.).

- In the psych domain:
  - **Inchoative/Pure States:**
    - Gradable scale: various possible states the Experiencer could end up in.
    - Gradable scale allows a cancelation of the CoS.
  - **Punctual States:**
    - Binary scale: just two states ¬Ø and Ø.
    - Only possible change from state ¬Ø is Ø.
    - Culmination cannot be cancelled (Experiencer saturates the verb).
3. Non-culmination readings

- **Spanish**
  - **Inchoative States**: agenthood of STM relevant for the NC of the CoS.
  - **Punctual States**: agenthood of STM not relevant factor for the NC of the CoS. Aspect of the lexical item cancels NC.

- **Korean**
  - **States/Inchoative States**: agenthood of STM relevant for the NC of the CoS.

- **Why?**
  - **States** are gradable.
  - **Inchoative States** refer to the onset of the state and some part of that state as well. (More details in Section 4)
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**

- All tests where conducted with a native speaker 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, mi llamada divierte/sorprende a Luisa.*

Whenever that her call, my calling entertain/surprise-PRS.3s to Luisa
‘Whenever I call her, my call entertains/surprises Luisa.’

**KOREAN**

Inchoative marker –e ci: OK with State (St) verbs.

Inchoative states (InSt): initial zero-marked BECOME operator; do not allow addition of extra inchoative marker.


Mina-NOM now-TOP happy-INCH-PRS-DECL
‘Mina is getting happy now.’


Mina-NOM now-TOP surprise-INCH-PRS-DECL
‘Mina is getting surprised now.’

(cf. Section 2 – Korean)
4. Methodology-Semantic Tests

- **Telicity**
  
  • For/in-adverbials acceptability: \( in \times time = \text{telic} ; \ for \times time = \text{atelic} \).

  **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 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).

  
  ‘Mina was happy for 10 minutes.’

  
  ‘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/surprise-INF to Luisa
  ‘Juan/the movie has stopped entertaining/surprising Luisa.’

  **KOREAN**

  Progressive/Continue marker –*ko iss*:

  St: unacceptable (15a); InSt: acceptable due to their dynamicity (i.e. [+stages]) (15b) (Choi, 2015).

      Mina-NOM now happy-PROG-DECL
      ‘Mina is being happy now.’

      Mina-NOM now surprise-PROG-DECL
      ‘Mina is being surprised now.’
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 REFLECTS goes to entertain/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 kippu/nolla-nun-cwungi- ta.*
  
  Mina-NOM the situation-DAT about happy/surprise- PROG-DECL

  ‘Mina is getting happy/surprised about the situation.’
### Table 1: Summary of Spanish Verb Inventory by Emotional Domain and Verb Type

<table>
<thead>
<tr>
<th>EM. Domain</th>
<th>Inchoative St.</th>
<th>Eng. Translation</th>
<th>Punctual St.</th>
<th>Eng. Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAPPINESS</td>
<td>divertir</td>
<td>entertain, amuse</td>
<td>sorprender</td>
<td>surprise</td>
</tr>
<tr>
<td></td>
<td>contentar</td>
<td>please, make happy</td>
<td>impresionar</td>
<td>impress</td>
</tr>
<tr>
<td>SADNESS</td>
<td>amargar</td>
<td>depress</td>
<td>desalentar</td>
<td>demotivate</td>
</tr>
<tr>
<td></td>
<td>deprimir</td>
<td>depress</td>
<td>conmocionar</td>
<td>affect deeply</td>
</tr>
<tr>
<td>ANGER</td>
<td>molestar</td>
<td>bother</td>
<td>alterar</td>
<td>agitate, upset</td>
</tr>
<tr>
<td></td>
<td>disgustar</td>
<td>annoy, upset</td>
<td>enloquecer</td>
<td>drive crazy</td>
</tr>
<tr>
<td>FEAR</td>
<td>preocupar</td>
<td>worry</td>
<td>asustar</td>
<td>frighten</td>
</tr>
<tr>
<td></td>
<td>inquietar</td>
<td>make uneasy, worry</td>
<td>espantar</td>
<td>scare away</td>
</tr>
<tr>
<td>DISGUST</td>
<td>confundir</td>
<td>confuse</td>
<td>ofender</td>
<td>offend</td>
</tr>
<tr>
<td></td>
<td>incomodar</td>
<td>disturb</td>
<td>escandalizar</td>
<td>scandalize</td>
</tr>
</tbody>
</table>

### Table 2: Summary of Korean Verb Inventory by Emotional Domain and Verb Type

<table>
<thead>
<tr>
<th>EM. Domain</th>
<th>Pure St.</th>
<th>Eng. Translation</th>
<th>Inchoative St.</th>
<th>Eng. Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAPPINESS</td>
<td>kipputa culkepta</td>
<td>happy, pleased</td>
<td>nollata</td>
<td>get surprised</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>sinnata selleya hungi nata</td>
<td>get excited get fluttered get pleased</td>
</tr>
<tr>
<td>SADNESS</td>
<td>koylopta sulphuta</td>
<td>painful to sad</td>
<td>michita</td>
<td>drive crazy</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ccacungi nata hwanata</td>
<td>get irritated get angry</td>
</tr>
<tr>
<td>ANGER</td>
<td>wenmangsulepta himtulta</td>
<td>resentful hard to</td>
<td>mitchita cacungi nata</td>
<td>get angry</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ccacungi nata hwanata</td>
<td></td>
</tr>
<tr>
<td>FEAR</td>
<td>twulyepta mwusepta</td>
<td>afraid, scared</td>
<td>sosulachita kep nata</td>
<td>get frightened get scared</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>kep nata</td>
<td></td>
</tr>
<tr>
<td>DISGUST</td>
<td>anthakkapta honlansulepta</td>
<td>pitiful to confused</td>
<td>cichita</td>
<td>get tired</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4. Methodology-Culminativity 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-culmination reading*.
  - *(Inanimate) Causers* allow a *culmination reading*.

**Expectations:**

- Spanish:  
  - \( \text{InSt + [+animate]} = \text{NC} \); \( \text{InSt + [-animate]} = \text{C} \)
  - \( \text{PSt + [+/ animate]} = \text{C} \)
- Korean:  
  - \( \text{St/InSt + [animate]} = \text{NC} \); \( \text{St/InSt + [-animate]} = \text{C} \)

- 40 sentences:
  - Dependent variable
    - **Culminativity:** Culmination reading (CR) vs. Non-culmination reading (NCR)
  - Fixed factors
    - **Stimulus:** animate (agentive) vs. inanimate (causer)
    - **Verbal Aspect:**
      - *Spanish*: Inchoative state vs. Punctual state
      - *Korean*: Pure state vs. Inchoative state
  - 10 verbs: **Verbal Aspect** factor.
    - 20 Spanish & 20 Korean items.
    - Each appeared twice (Stimulus factor).
    - No fillers included.
4. Methodology-Culminativity 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**

(18) *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**


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 ‘Culminativity’

(a) Spanish

(b) Korean
5. Results & Discussion—General Effects

Table 3: Linear model fit on ‘Culminativity’ in Korean (random factors: ‘Speakers’ ‘Verbs’)

<table>
<thead>
<tr>
<th>effect</th>
<th>estimate</th>
<th>st. error</th>
<th>t-value</th>
<th>p</th>
<th>model comparison (LogLikelihood)</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTERCEPT</td>
<td>3.7</td>
<td>.2</td>
<td>17.8</td>
<td>&lt; .001</td>
<td></td>
</tr>
<tr>
<td>ASPECT (state)</td>
<td>.2</td>
<td>.1</td>
<td>1.5</td>
<td>.1</td>
<td>.2</td>
</tr>
<tr>
<td>STIMULUS (inanimate)</td>
<td>−.8</td>
<td>.1</td>
<td>−6.2</td>
<td>&lt; .001</td>
<td>100.5</td>
</tr>
<tr>
<td>ASPECT^STIMULUS</td>
<td>−.3</td>
<td>.2</td>
<td>−1.6</td>
<td>.1</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Table 4: Linear model fit on ‘Culminativity’ in Spanish (random factors: ‘Speakers’ ‘Verbs’)

<table>
<thead>
<tr>
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<th>estimate</th>
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<th>model comparison (LogLikelihood)</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTERCEPT</td>
<td>3.0</td>
<td>.2</td>
<td>15.9</td>
<td>&lt; .001</td>
<td></td>
</tr>
<tr>
<td>ASPECT (state)</td>
<td>−.8</td>
<td>.1</td>
<td>−5.6</td>
<td>&lt; .001</td>
<td></td>
</tr>
<tr>
<td>STIMULUS (inanimate)</td>
<td>−.9</td>
<td>.1</td>
<td>−7.2</td>
<td>&lt; .001</td>
<td></td>
</tr>
<tr>
<td>ASPECT^STIMULUS</td>
<td>.6</td>
<td>.2</td>
<td>2.9</td>
<td>&lt; .01</td>
<td>8.4</td>
</tr>
</tbody>
</table>

- 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 make a NCR possible.
  - Inanimate causer cannot cancel culmination.

- In line with ACH Hypothesis (cf):

  (20) 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.’

(20a): Entertaining *y* does not necessarily imply that *y* gets entertained (to a positive degree $\delta < 1$). No contradiction.

(20b): Inanimate STM fulfills the $\phi$-CoS of ‘getting entertained = Contradiction’ (Demirdache & Martin, 2015; Martin & Schäfer, 2015).
5. Results & Discussion-General Effects

**Aspect:**

- **Spanish:**
  - Punctuality overrules the ACH.
  - PSt: binary scale (CoS from $\text{─}\varnothing$ to $\varnothing$) (Beavers & Lee, in prep.).
  - Initial left-boundary: instantaneous CoS.

(21) *Juan/la película sorprendió a María, pero ella no se dio cuenta y siguió indiferente.*
   ‘John/the movie surprised Mary, but she didn’t realize it and remained indifferent.’

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

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

- Cancellation of culmination allowed.

   ‘Minho made Mina get surprised, but she didn’t realize it.’
5. Results & Discussion-General Effects

**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.
5. Results & Discussion - Lexical Variation

Figure 2: CANCELLATION OF CULMINATIVITY PER VERB

(a) SPANISH

(b) KOREAN
5. Results & Discussion - Lexical Variation

- Spanish lexical items: Gradation of verbs; i.e. some more prototypical agentive.
- Extra analysis on agentivity (semantic tests based on Marín, 2011).

Table 5: AGENTIVITY TESTS FOR EO PSYCH VERBS IN SPANISH

<table>
<thead>
<tr>
<th>Tests</th>
<th>Non-Agentive</th>
<th>Agentive</th>
</tr>
</thead>
<tbody>
<tr>
<td>¿Qué ha hecho X? ‘What has X done?’</td>
<td>–</td>
<td>+</td>
</tr>
<tr>
<td><em>Intencionalmente</em> ‘intentionally’</td>
<td>–</td>
<td>+</td>
</tr>
<tr>
<td>Imperative</td>
<td>–</td>
<td>+</td>
</tr>
<tr>
<td>Complement of place</td>
<td>–</td>
<td>+</td>
</tr>
<tr>
<td><em>Ser</em> or <em>estar</em> ‘to be’ verb</td>
<td>estar</td>
<td>estar/ser</td>
</tr>
</tbody>
</table>

- InSt.: *molestar, confundir, incomodar* = prototypically agentive (Table 8 – Appendix)
6. Summary

- **ACH**
  STM
  [+animate]  →  Non-Culmination Reading
  [-animate]  →  Culmination Reading

- Psych domain: aspect of verbs (i.e. inchoativity) seem to play a role on culminativity. This turns to be language specific:

<table>
<thead>
<tr>
<th>SPANISH: INTRASITIVIZING</th>
<th>KOREAN: TRASITIVIZING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INCHOATIVE St.</strong></td>
<td></td>
</tr>
<tr>
<td>[+animate]</td>
<td>+/- NC</td>
</tr>
<tr>
<td>[-animate]</td>
<td>+/- NC</td>
</tr>
<tr>
<td><strong>PUNCTUAL St.</strong></td>
<td></td>
</tr>
<tr>
<td>[+animate]</td>
<td>- NC</td>
</tr>
<tr>
<td>[-animate]</td>
<td>- NC</td>
</tr>
<tr>
<td><strong>INCHOATIVE St.</strong></td>
<td></td>
</tr>
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6. Summary

- Spanish:
  - Inchoative states: in line with ACH.
  - Punctual states: punctuality overrules ACH due to the binary scale.

- Korean:
  - State 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.
  - Inchoative states: not the same as Spanish.
    - Spanish InSt.: non-dynamic (Marín, 2011, 2014; Marín & McNally, 2005, 2011)
    - Korean InSt: dynamic (onset + ongoing/dynamic state) (Choi & Demirdache, 2014.)
References


References


References


### Table 6: Averages of the Individual Verbs in Korean

<table>
<thead>
<tr>
<th>aspect</th>
<th>verb</th>
<th>animate</th>
<th>inanimate</th>
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<tbody>
<tr>
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<td>drive crazy - <em>michita</em></td>
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### Table 7: Averages of the Individual Verbs in Spanish

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Muchas gracias!
감사합니다!
Thank you!
Vielen Dank!