

# Finding your niche in the complementation system

The distribution of Basque verbal noun  
complements

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ETT 2025

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4 June 2025

# Outline

- Complementation systems
- Verbal noun complements and their distribution
  - Morphosyntactic properties
  - Distribution across semantic classes of CEPs
- Explaining the patterns
  - Semantic integration
  - Temporal and aspectual relations
  - Coreference relations
  - Sources of the form-meaning mapping
- Conclusion

# Complementation systems

- Complement clause (CC):
  - clause that is the argument of a predicate
- Clause-embedding predicate (CEP):
  - predicate that takes clauses as one of its arguments
- Complementation construction:
  - construction of CEP and its CC
- Complementation system:
  - "set of clausal complement types that language users have available and the principles that determine how they put them to use" (de Smet 2012: 5)
  - CCs have different functional profiles governing distribution over different syntactic and semantic contexts (cf. Schmidtke-Bode 2014: Chapter 7)

# Complementation systems

- Main factors that are relevant cross-linguistically (universally?): morphosyntactic and semantic complexity and integration (Givón 1990; Cristofaro 2003; Wurmbrandt/Lohninger 2023)
  - Semantic: independence of truth value, independence of time reference, control of matrix agent over embedded SoA ...
  - Morphosyntactic: expression of TAM and arguments, degree of nominalization ...
- So far the focus has been more on broad typological tendencies and possibly universal implicational hierarchies (e.g. Givón 1990; Cristofaro 2003; Noonan 2007; Schmidtke-Bode 2014; Wurmbrandt/Lohninger 2023) and less on more language-specific factors

# The Basque complementation system

finite	indicative	neutral declarative
		NPI declarative
		interrogative
	subjunctive	
non-finite	verbal noun	absolutive
		ergative
		dative
		instrumental
		purposive
		ablative
		allative
		inessive
	perfective participle	participial interrogative
		bare participle

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# Morphosyntactic properties of verbal noun complements

- Verbal noun (also *action nominal*, *masdar*): inflectional action nominalization
- Verb stem + *-t(z)e*
- Internal morphosyntax (marking of dependents, word order) verbal, but external morphosyntax (case, determiners) nominal



# Morphosyntactic properties of verbal noun complements

- Internal morphosyntax verbal, but external morphosyntax **nominal**

- (1) a. *katu-a-k*    *sagu-a-Ø*    *harrapa-tu-ko* *d-u-Ø*    *itzul-tzen*  
          cat-SG-ERG    mouse-SG-ABS    catch-PFV-FUT    3SG.ABS-AUX.TR-3SG.ERG    return-IPFV  
          *d-en-ea-n*  
          AUX.ITR.3SG-SUB-SG-INE  
          'The cat will catch the mouse when it comes back.'
- b. *sagu-a-ren*    *gaur-ko*    *itzulera-a-Ø*  
          mouse-SG-GEN    today-LK    return-SG-ABS  
          'the return of the mouse today'
- c. *katu-a-k*    *sagu-a-Ø*    *harrapa-tze-a-Ø*    *itzul-tzen*    *d-en-ea-n*  
          cat-SG-ERG    mouse-SG-ABS    catch-NMLZ-SG-ABS    return-IPFV    AUX.ITR.3SG-SUB-SG-INE  
          'the cat catching the mouse when it comes back'

# Morphosyntactic properties of verbal noun complements

- Internal morphosyntax verbal: absolutive VNs distinction between non-past/imperfective and past/perfective

(2) a. *katu-a-k*      *sagu-a-Ø*      *harrapa-tze-a-Ø*      *itzul-tzen*      *d-en-ea-n*  
          cat-SG-ERG    mouse-SG-ABS    catch-NMLZ-SG-ABS    teach-IPFV    AUX.ITR.3SG-SUB-SG-INE

'the cat catching the mouse when it comes back'

[illegible]

'the cat having caught the mouse when it came back'

# Distribution across semantic classes

## Data:

- Exploratory corpus study of complementation patterns of 145 clause-embedding predicates in the Basque Corpus of Contemporary Texts (ETC) (exclusively written text from 2001-2019)
- + descriptions in grammars (Hualde/Ortiz de Urbina 2003; de Rijk 2008; Euskaltzaindia 2021)

# Distribution across semantic classes

- ABS:

- a) Independent time reference: utterance, attitude and cognition verbs (typically when content of CC is discourse-given)

e.g. *ukatu* ‘deny’, *eskertu* ‘be thankful for’, *espero izan* ‘hope’, *salatu* ‘denounce’ ...

- b) Dependent time reference: directive, commissive, intention, direct causation, implicative

e.g. *eskatu* ‘ask for’, *bermatu* ‘guarantee’, *pentsatu* ‘intend’, *saihestu* ‘avoid’, *lortu* ‘manage’ ...

# Distribution across semantic classes

- PUR: mostly directive verbs, some commissive or intention verbs  
e.g. *exijitu* ‘demand’, *aholkatu* ‘advise’, *gogorarazi* ‘remind’, *zin egin* ‘swear’ ...
- INE: immediate perception, causation, phasal, procedural knowledge, some implicative  
e.g. *ikusi* ‘see (doing)’, *lagundu* ‘help’, *utzi* ‘let’, *hasi* ‘begin’, *jakin* ‘know (how to)’, *tematu* ‘insist, insistently keep doing’ ...

# Explaining the patterns

## Semantic integration?

→ can only partly explain the patterns

less integrated ← → more integrated

(cf. Givón 1990; Cristofaro 2003; Wurmbrandt/Lohninger 2023)

utterance, cognition, attitude	directive	intention	implicative	causative	immediate perception	procedural knowledge	phasal
ABS							
	PUR						
				INE			

# Explaining the patterns

## **Temporal and aspectual relations between matrix and embedded SoA:**

- Independent vs. dependent time reference:
  - Only ABS independent
- Temporal ordering:
  - PUR CC after matrix SoA
  - INE CC simultaneously with matrix SoA
- Perfectivity:
  - INE CC imperfective: action seen from within, consisting of subparts

# Explaining the patterns

- PUR vs. INE: *tematu* ‘insist, insistently keep doing’

- (3) a. *[planeta oso-a-ri eragi-ten d-i-o-te-n afera potolo-eta-n*  
 planet whole-SG-DAT affect-IPFV 3SG.ABS-AUX.DITR- issue big-PL-INE  
 3SG.DAT-3PL.ERG-REL  
*muturr-a-Ø sar-tze-n] tema-tu-ko ez ba-zinete [...]*  
 snout-SG-ABS enter-NMLZ-INE **insist-PFV-FUT** NEG if-AUX.ITR.PROT.2PL

‘If you didn’t insistently keep meddling with big issues that affect the whole planet [...]’ (ETC: *Egunaren hondarrak*, Kazuo Ishiguro (Amaia Apalauza / Iñigo Roque))

[>>>>>] *tematu*  
 ----->  
 [>>>>>>>>] ‘meddle’



# Explaining the patterns

- PUR vs. INE: *tematu* ‘insist, insistently keep doing’

(3) b. *batzuk [errauste planta kutsakor eta garesti-a-Ø egi-te-ko]*  
some.ABS incineration plant polluting and expensive-SG-ABS make-NMLZ-PUR

*tema-tu dir[a]*

**insist-PFV** AUX. ITR. 3PL

‘Some have insisted on building a polluting and expensive incineration plant.’  
(ETC: Gipuzkoako Hitza, 2013-12-20)

[>>>>>>] *tematu*

----->

[>>>] ‘build’

# Explaining the patterns

- ABS vs. INE: *ahaztu* ‘forget’ (cf. also Artiagoitia 2003: 681)

(4) a. *[ni-re izen-a-Ø esa-te-a-Ø] ahaz-tu zai-t*  
 1SG-GEN name-DEF.SG-ABS say-NMLZ-DEF.SG-ABS **forget-PFV** 3SG.ABS.AUX.ITR II-1SG.DAT

‘I forgot to say my name.’ (ETC: *Egun denak ez dira berdin*, Xabier Etxeberria)

b. *eta jokalariai, [futbol-ea-n joka-tze-n] ahaz-tu zai-e-la*  
 and player-DEF.PL.DAT football-DEF.SG-INE play-NMLZ-INE **forget-PFV** 3SG.ABS.AUX.ITR II-3PL.DAT-COMP

*dirudi-Ø*

seem-3SG.ERG

‘And as for the players, it seems as if they have forgotten how to play football.’ (ETC: Egunkaria, 2000-12-23)

# Explaining the patterns

**Temporal and aspectual relations between matrix and embedded SoA:**

	purposive	inessive	absolutive
prospective	X		X
imperfective		X	
perfective			X
independent			X



# Explaining the patterns

## Sources of the form-meaning mapping:

- ABS VN possibly one of the oldest CC types because prototypical complement slot is P → not very specialized
- ABS VN only one allowing basic tense/aspect distinction → best suited for independent time reference contexts
- INE VN morphologically identical to imperfective participle in Basque, cross-linguistically affinity between inessive/locative and progressive (Bybee et al. 1994: 129-133)
- Purposive marked with *-ko* like prospective participle, semantically future-oriented
- Association of purposive VN with object control due to purposive VN replacing subjunctive (disjoint reference)?

# Conclusion

- The distribution of VN complements can nicely be explained by temporal/aspectual and coreference relations between matrix and embedded SoA
  - Temporal ordering also relevant for English *to*-infinitive vs. gerund (Egan 2008) → also other languages?
- need to look at complementation systems of more individual languages in detail, in order to reveal possible further cross-linguistic organizational principles in addition to semantic integration

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**Eskerrik asko!**

# Appendix

- ABS vs. PUR: *eskatu* ‘ask for, request’

- (i) a. [<sub>i</sub> *eskola-ak*    *Leioa-ko*    *campus-ea-n*    *ema-te-a-Ø*]    ***eska-tu***  
                  class-PL.ABS    Leioa-LGEN    campus-SG-INE    give-NMLZ-SG-ABS    **ask-PFV**

*d-i-t<sub>j</sub>-Ø<sub>i</sub>*

3SG.ABS-AUX.DITR-1SG.DAT-3SG.ERG

‘S/he requested (‘to me’) to teach the classes at the Leioa campus.’ (Artiagoitia 2003: 674)

- b. [<sub>j</sub> *eskola-ak*    *Leioa-ko*    *campus-ea-n*    *ema-te-ko*]    ***eska-tu***  
                  class-PL.ABS    Leioa-LGEN    campus-SG-INE    give-NMLZ-PUR    **ask-PFV**

*d-i-t<sub>j</sub>-Ø<sub>i</sub>*

3SG.ABS-AUX.DITR-1SG.DAT-3SG.ERG

‘S/he asked me to teach the classes at the Leioa campus.’ (ibid.)

→ PUR object control, ABS rather subject control?

# Appendix

- ABS vs. INE: *irakatsi* 'teach'

(ii) a. [*irakur-tze-n eta idaz-te-n*] ***irakas-ten*** *d-i-e-te*  
 read-NMLZ.INE and read-NMLZ-INE **teach-IPFV** 3SG.ABS-AUX.DITR-3PL.DAT-3PL.ERG

'They teach them how to read and write.' (ETC: Berria, 2017-07-16)

b. [*peoi-ak sakrifika-tze-a-Ø eta errege-a-Ø gauza guzti-Ø-en gain-etik*  
 pawn-PL.ABS sacrifice-NMLZ-SG-ABS and king-SG-ABS thing all-PL-GEN above-ABL  
*defenda-tze-a-Ø*] ***irakas-ten*** *d-u-Ø-en* *joko zoro hori*  
 defend-NMLZ-SG-ABS **teach-IPFV** 3SG.ABS-AUX.TR-3SG.ERG-REL game crazy DEM.MED.ABS

'that crazy game that teaches to sacrifice the pawns and to defend the king  
 above everything' (ETC: Jakin aldizkaria, 226 zbk.)

→ procedural knowledge vs. deontic

# Appendix

## Tempus/aspect vs. coreference:

(iii) [*urtero beste laurehun libera-Ø ordain-tze-ko*] *hitz-Ø* *eman-Ø*  
every\_year other 400 franc-ABS pay-NMLZ-PUR word-ABS give-PFV

*z-i-o-te-n*

3SG.ABS-AUX.DITR-3SG.DAT-3SG.ERG-PST

'They promised him/her to pay again 400 franc every year.' (ETC: *Fantasiazko ipuinak*, Guy de Maupassant (Josu Zabaleta))

ABS slot already filled → PUR only remaining option for encoding prospectivity → aspect distinction more important than coreference