

TWO WAYS TO EXISTENTIALLY CLOSE A PROPOSITION

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1. Root and Embedded Clauses

Linguists often distinguish root clauses from embedded clauses.

- (1) a. **Root Clause:** Can exist independent of other clauses in an utterance
- b. **Embedded Clause:** Only grammatical when embedded within a root clause

Typically, these two different types of clauses exhibit different phenomena.

- (2) a. **Root Phenomena:** Allows discourse markers, fronting of arguments
- b. **Embedded Phenomena:** Marked by complementizers, embeds less material

However, many languages embed clauses which exhibit root phenomena (embedded root phenomena) or have independent clauses with embedded phenomena (insubordination).

| | | | |
|-----|--------------------|------------------------|--------------------------------|
| (3) | | Root Clause | Embedded Clause |
| | Root Phenomena | Typical Root Clause | Embedded Root Phenomena |
| | Embedded Phenomena | Insubordination | Typical Embedded Clause |

Root phenomena is caused (in part) by the presence of speech act semantics and its accompanying syntactic material in the form of a sortal domain.

2. Speech Acts and Propositions

Searle (1969): propositions and speech acts are distinct; propositions are functions from worlds to truth values, speech acts are ‘turns’ in a communicative game.

- (4)
- a. $[\text{Speech Act [Illocutionary Force]}]_{\langle \langle s, t \rangle, a \rangle} [\text{Sentence Radical}]_{\langle s, t \rangle}]_a$
 - b. $\llbracket \text{I am hungry} \rrbracket = \lambda w. \text{I am hungry in } w$
 - c. $\llbracket \text{FORCE} \rrbracket(\llbracket \text{I am hungry} \rrbracket) = \text{ASSERT}(\text{I am hungry in } w^*)$

Speas and Tenny (2003): (S&T (2003)) left periphery has **two ontological regions**, lower **propositional** domain and higher **speech act** domain. Hill (2007): discourse markers and vocatives are **restricted to far left/right periphery**.

- (5) (Alas,) Jonas, (*alas) I (*alas) fear (*alas) that (*alas) Martha (*alas) left (?alas).

2. Speech Acts and Propositions

In many languages, evidentials are **not truth conditional**; they fail assent/dissent tests. In Cuzco Quechua, one cannot directly challenge the evidential force of a sentence.

(6) a. *Inés-qa qaynunchay ñaña-n-ta-s watuku-sqa*

Inés-TOP yesterday sister-3-ACC-REP visit-PST2

‘Inés visited her sister yesterday’

EVIDENCE: speaker was told that Inés visited her sister yesterday

b. *#Mana-n chiqaq-chu. Mana-n chay-ta willa-rqa-sunki-chu.*

not-DIR true-NEG not-DIR this-ACC tell-PST1-3s2O-NEG

‘That’s not true. You were not told this.’

[Cuzco Quechua; Faller 2002:195-196]

Faller (2002): evidentials affect **sincerity conditions** rather than **truth conditions**.

(7) While a **proposition** is **true** when it accurately represents the **world** of evaluation, “[a] performance of an illocutionary **act** is **sincere** when the speaker has the mental state that he expresses in the performance [or **context**] of that act and it is insincere otherwise” (Vanderveken 1990:117).

2. Speech Acts and Propositions

Corr (2016): Utterance Phrase for speech acts, CP for propositions. ForceP as interface.

(8)

| | [SAHighP | [SALowP | [EvalP | [EvidP | [DeclP | [TopP | ... |
|-------------|-----------|----------|----------------|---------|---------|--------|-----|
| S&T (2003) | SAP | | SentienceP | | CP | | |
| Corr (2016) | UP | | ForceP (in CP) | | | CP | ... |
| This Paper | UP | | | | ForceP | CP | ... |

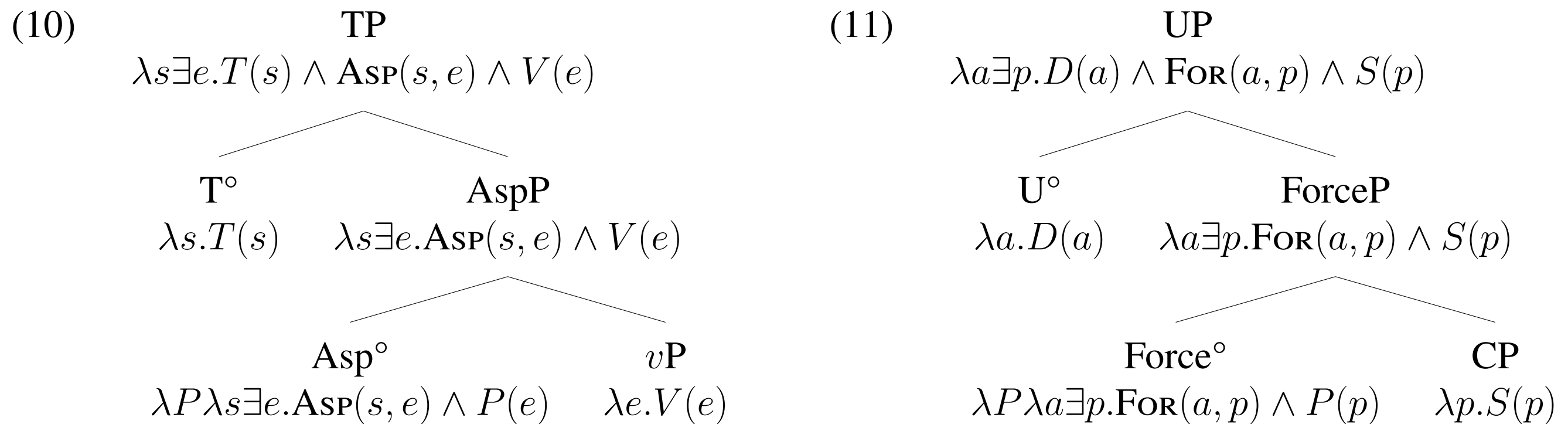
Non truth-conditional EvidP must be in UP domain. Type-shifting Force^o must be a single head (with a single phrase). DeclP hosts DECLARATIVE feature, for S&T as EpisP.

(9)

| Speech Act Domain | ForceP | Propositional Domain |
|---------------------------------|--------|-----------------------------------|
| Sincerity Conditional | | Truth Conditional |
| Generating heads for vocatives | | No generating heads for vocatives |
| More landing sites for movement | | Fewer landing sites for movement |

3. Speech Acts as a Sort in the Clausal Spine

Ramchand and Svenonius (2014): *v*P, TP, and CP domains each represent and modify the **sortal types** of events, situations, and propositions. Strict syntactic hierarchy caused by strict cognitive hierarchy.



4. Embedded Root Phenomena as Embedded Speech Acts

Kratzer (2006) and Moulton (2009): verbs take entity-type arguments, not propositions. Complementizers type-shift propositions to entities via **compatibility relations** which relate entities and worlds.

- (14) a. $compatible(x, w) = 1$ iff x refers to a proposition p_x such that $p_x(w) = 1$
 b. $COMP(x, p) = \forall w'[compatible(x, w') \rightarrow p(w') = 1]$
 c. $\llbracket COMP \rrbracket = \lambda p \lambda x. COMP(x, p)$
 d. $\llbracket COMP \rrbracket = \lambda P \lambda x \exists p. COMP(x, p) \wedge P(p)$

Complementizers like relational heads: introduce an entity argument and close a proposition argument.

- (15) a. $\llbracket \text{that it is raining} \rrbracket = \lambda x \exists p \exists s \exists e. COMP(x, p) \wedge FIN(p, s) \wedge ASP(s, e) \wedge rain(e)$
 b. $\llbracket \text{know that it is raining} \rrbracket = \lambda e' \exists x \exists p \exists s \exists e. know(e', x) \wedge COMP(x, p) \wedge FIN(p, s) \wedge ASP(s, e) \wedge rain(e)$

In Spanish, question and imperative speech acts can embed under verbs.

- (16) a. *Juan dijo [CP quién venía].*
 Juan said who come-PST
 ‘Juan said who was coming.’
 b. *Juan dijo **que** [UP quién venía].*
 Juan said that who come-PST
 ‘Juan said: who was coming?’

‘*Que*’ acts as relational head between speech acts and entities. Rather than a **compatibility relation** relating a proposition referring entity to a **world** where the **proposition** is **true**, we use a **suitability relation** which relates a speech act referring entity to a **context** where the **speech act** is **sincere** (§).

- (17) a. $suitable(x, c) = 1$ iff x refers to a speech act a_x such that $a_x(c) = \S$
 b. $SUIT(x, a) = \forall c'[suitable(x, c') \rightarrow a(c') = \S]$
 c. $\llbracket \text{que} \rrbracket = \lambda a \lambda x. SUIT(x, a)$
 d. $\llbracket \text{que} \rrbracket = \lambda P \lambda x \exists a. SUIT(x, a) \wedge P(a)$

The resulting relation **SUIT** relates a speech act a to an entity x if the entity refers to a speech act a_x such that a is sincere in all contexts where a_x is sincere. Embedded speech acts represent the sincerity conditions of **another speech act**. This **need not be a verbatim quotation**, only must accurately reflect the sincerity conditions of the referenced speech act.

5. Consequences and Insubordination

Suitability relations evaluate **sincerity conditions** but return either true or false as outputs, meaning that they themselves are **truth conditional**.

- (18) a. *Juan dijo que [UP hicieran su propio].*
Juan say that do-SBJV 2.POSS task
'Juan says: do your task.'
- b. $\llbracket \text{hicieran su propio} \rrbracket = \lambda a \exists p. \text{FOR}_{\text{Command}}(a, p) \wedge \text{you do your task}(p)$
- c. $\llbracket \text{que hicieran su propio} \rrbracket = \lambda x \exists a \exists p. \text{SUIT}(x, a) \wedge \text{FOR}_{\text{Command}}(a, p) \wedge \text{you do your task}(p)$
- d. $\llbracket \text{Juan dijo que hicieran su propio} \rrbracket =$
 $\lambda a' \exists p' \exists s \exists e \exists x \exists a \exists p. \text{FOR}_{\text{Assert}}(a', p') \wedge \text{FIN}(p', s) \wedge \text{ASP}(s, e) \wedge \text{AGENT}(e, \text{Juan}) \wedge \text{say}(e, x) \wedge$
 $\text{SUIT}(x, a) \wedge \text{FOR}_{\text{Command}}(a, p) \wedge \text{you do your task}(p)$

5. Consequences and Insubordination

Insubordination caused by silent predication over the entity type ‘*que*’ clause (Etxepare 2010).

- (19) a. *(Oye,) que el Athletic de Bilbao ha fichado a Ronaldinho.*
 listen that the Athletic Bilbao has recruited PREP Ronaldinho
 ‘(Listen,) Athletic Bilbao has got Ronaldinho.’
EVIDENCE: the speaker has been told that Athletic Bilbao got Ronaldinho
- b. *Venga hombre, no te han dicho eso.*
 come.on man NEG CLT.2SG have told that
 ‘Come on, man, they didn’t tell you that’ [Spanish; Etxepare 2010:612]

- (6) a. *Inés-qa qaynunchay ñaña-n-ta-s watuku-sqa*
 Inés-TOP yesterday sister-3-ACC-REP visit-PST2
 ‘Inés visited her sister yesterday’
EVIDENCE: speaker was told that Inés visited her sister yesterday
- b. *#Mana-n chiqaq-chu. Mana-n chay-ta willa-rqa-sunki-chu.*
 not-DIR true-NEG not-DIR this-ACC tell-PST1-3S2O-NEG
 ‘That’s not true. You were not told this.’
 [Cuzco Quechua; Faller 2002:195-196]

‘*Que*’ relates embedded speech act via the truth conditional **suitability relation**; one may challenge the suitability relation $SUIT(x, a)$, and thus the evidential force of the (embedded) UP.

- (20) a. Quechua: [UP REP [CP PROPOSITION]]
 b. Spanish: [UP [CP (Silent PREDICATE) [UP *que* REP [CP PROPOSITION]]]]
- truth conditional/available for dissent

6. Entity Taking Discourse Markers

Some forms of insubordination, such as **exclamations**, are not embeddable under Ibero-Romance verbs.

- (21) *Ai que che parece que teño todo o día?!*
 DM EXCL to.you=seem.3SG that have.1SG all the day
 ‘Do you think I’ve got all day?!’ [Galician; Corr 2016:89]

Exclamation have no embedded equivalent. Sentence radicals need not be propositional (Searle 1969). Exclamations have no truth conditions; their discourse markers directly take entity arguments.

- (22) a. Hurrah for Manchester United!
 b. $\llbracket \text{Hurrah} \rrbracket = \lambda x \lambda a. \text{CHEER}(a, x)$
 c. $\llbracket \text{Hurrah} \rrbracket(\llbracket \text{Manchester United} \rrbracket) = \lambda a. \text{CHEER}(a, \text{Manchester United})$

A ‘*que*’ headed entity UP can thus be taken as the argument of an exclamative discourse marker.

- (23) a. $\llbracket \text{ai} \rrbracket = \lambda x \lambda a. \text{EXAS}(a, x)$
 b. $\llbracket \text{che parece que teño todo o día} \rrbracket = \lambda p. \text{you think I have all day}(p)$
 c. $\llbracket \text{ai} \rrbracket(\llbracket \text{que} \rrbracket(\llbracket \text{EXCLAIM} \rrbracket(23b))) = \lambda a' \exists x \exists a \exists p. \text{EXAS}(a', x) \wedge \text{SUIT}(x, a) \wedge \text{FOR}_{\text{Exclaim}}(a, p) \wedge \text{you think I have all day}(p)$

Thus the entire utterance a' expresses exasperation (EXAS) at the sincerity conditions of embedded UP a .

7. A Spectrum of Roots

Hooper and Thompson (1973): embedded verb second (EV2) in Germanic languages is caused by embedded assertion. This assertive force is part of the entire utterance, committing the speaker the truth of the root clause proposition and the embedded proposition.

- (24) *[Ich glaube, [Max schnarcht.]_{p2}]_{p1}*
 I believe Max snores
 ‘I believe Max snores.’ [German]

Hooper and Thompson (1973) does not work for Ibero-Romance; embedded acts represent **referenced** illocutionary force, not part of the matrix force.

Wiklund et al. (2009) and Djärv (2019): EV2 expresses **discourse new** rather than **assertion**: CP-internal.

| | CP | UP |
|--------------------------------------|-----|-----|
| (25) Can embed under ‘believe’: | yes | no |
| Negation affects grammaticality: | yes | no |
| Must references a specific instance: | no | yes |

Corr (2016): differences in UP embedding are caused by different distributions of **feature splitting** (Portuguese vs. Galician).

Germanic ERP caused by feature splitting in CP;
 Ibero-Romance ERP caused by feature splitting in UP.

Bibliography

- Corr, Alice. 2016. Ibero-Romance and the Syntax of the Utterance. PhD Thesis, University of Cambridge, Cambridge.
- Djärv, Kajsa. 2019. Factive And Assertive Attitude Reports. PhD dissertation, University of Pennsylvania, Philadelphia.
- Etxepare, Ricardo. 2010. From hearsay evidentiality to samesaying relations. *Lingua* 120:604–627.
- Faller, Martina. 2002. Semantics and pragmatics of evidentials in Cuzco Quechua. Doctoral Dissertation, Stanford University, Stanford, Calif.
- Hill, Virginia. 2007. Vocatives and the pragmatics–syntax interface. *Lingua* 117:2077–2105.
- Hooper, Joan B., and Sandra A. Thompson. 1973. On the Applicability of Root Transformations. *Linguistic inquiry* 4:465–497.
- Kratzer, Angelika. 2006. Decomposing Attitude Verbs.
- Moulton, Keir. 2009. Natural Selection and the Syntax of Clausal Complementation. PhD Thesis, University of Massachusetts Amherst, Amherst.
- Ramchand, Gillian, and Peter Svenonius. 2014. Deriving the functional hierarchy. *Language Sciences* 46:152–174.
- Searle, John R. 1969. *Speech acts: An essay in the philosophy of language*. London: Cambridge U.P.
- Speas, Peggy, and Carol L. Tenny. 2003. Configurational properties of point of view roles. In *Linguistik Aktuell/Linguistics Today*, ed. Anna Maria Di Sciullo, volume 57, 315–344. Amsterdam: John Benjamins Publishing Company.
- Vanderveken, Daniel. 1990. *Meaning and Speech Acts: Volume 1, Principles of Language Use*, volume 1. Cambridge: Cambridge University Press.
- Wiklund, Anna-Lena, Kristine Bentzen, Gunnar Hrafn Hrafnbjargarson, and Þorbjörg Hróarsdóttir. 2009. On the distribution and illocution of V2 in Scandinavian that-clauses. *Lingua* 119:1914–1938.