

## Belief-Intention alternation with Italian *convincere*

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**Introduction** Crosslinguistically, it has been observed that certain clause embedding verbs exhibit a belief/intention semantic alternation wrt their complement clause (Grano 2019, 2024; Giannakidou & Mari 2022). Such alternation correlates with specific morpho-syntactic features of the complement clause, for example finiteness for English *persuade* (Grano 2019, 2024) and Russian *dumat* (Kasenov, 2023), indicative vs. subjunctive mood for Greek *pitho* ‘persuade’ (Giannakidou & Mari 2022). Interestingly, Italian *convincere* ‘convince’, shows the same alternation within the non-finite domain. The verb can select two infinitival prepositional complementizers:

- (1) a. Marco ha convinto Gianni **di** avere un figlio.  
Marco<sub>1</sub> has convinced Gianni<sub>2</sub> *di* PRO<sub>1/2</sub> have.INF a child.  
Marco has convinced Gianni that he has a child.
- b. Marco ha convinto Gianni **ad** avere un figlio.  
Marco<sub>1</sub> has convinced Gianni<sub>2</sub> *a* PRO\*<sub>1/2</sub> have.INF a child.  
Marco has convinced Gianni to have a child.

In (1a), Mario causes Gianni to have a belief about some state of affairs *s*, whereas in (1b) the result is that Gianni has an intention to bring *s* about. We will argue that the two infinitival clauses differ in structural size (Wurmbrand 2001), and that this difference, paired with a suitable lexical semantics for the two complementizers, explains the semantic alternation observed.

**Previous accounts of belief/intention predicates:** Belief/intention predicates show an indicative/subjunctive alternation in the complement clause (Grano 2024). Giannakidou & Mari (2021) propose for Greek that indicative selection presupposes subjective veridicality of the embedded clause wrt the modal background provided by the embedding verb. Grano (2024) on Romance languages suggests that subjunctive complements involve eventuality abstraction, i.e., that their eventuality argument is not existentially bound. For English, Grano proposes that the same distinction is conveyed by finite vs. non-finite complements. This, however, does not readily apply to cases like Italian, where the two senses map to two infinitivals. More importantly, this proposal implies that complement clauses are of different semantic types, committing us either to assume lexical ambiguity of the embedding predicates, or to implement some type adjusting mechanism.

**Empirical evidence** We observe the following contrasts. First, (1a) allows the embedded PRO to be bound by either the matrix subject or object, whereas (1b) involves obligatory object control. This contrast aligns with Landau’s (2021, 2024) distinction between predicative and logophoric control: in (1a), PRO may refer to either the AUTHOR or Addressee of the matrix clause (logophoric), whereas in (1b), this is not possible (predicative). According to Landau (2015, 2024), this distinction pertains to different layers of the infinitival clause. Second, modals are strictly prohibited with *a*-infinitive but allowed with *di*-infinitive (2), suggesting that *di*-infinitive includes a full TP, whereas *a*-infinitive only contains a lower functional layer capable of hosting low aspectual verbs (Cinque 2006; Grano 2015).

- (2) Marco ha convinto Gianni **di/\*a** voler/poter/saper/dover studiare.  
Marco has convinced Gianni *di/\*a* want/can/being-able/have-to study.INF

Third, only the content of the infinitive below *di* can be assessed for truth, unlike the infinitive selected by *a*. This implies that the former, but not the latter, is fully propositional.

(3) Marco ha convinto Gianni **di/\*ad** avere un figlio, ma non è vero.

Marco has convinced Gianni that he has/\*to have a child, *but it is not true*.

**Our Proposal:** Based on the above evidence, we propose that there is a structural difference between the two constituents selected by *di* and *a*. *a* selects minimally a vP infinitive, which denotes an event description with an abstracted individual argument, thus forcing *de se* readings (unless *x* is existentially bound) (Chierchia 1989; Grano 2024).

(4)  $[[[{}_{\text{vP}}\text{PRO avere un figlio}]]] = \lambda x.\lambda w.\lambda e.\text{HAVE-A-CHILD}(e, w) \ \& \ \text{AGENT}(x, e, w)$   
*di*, on the other hand, selects a larger structure, potentially capable of hosting other functional heads (cf. (2)). Given the propositional nature of this kind of infinitival, we also assume that its eventuality argument has been saturated through some CLOSURE operator, realized by a high-TP head (see Grano 2024 for discussion). Therefore, the denotation for the infinitival selected by *di* is along the lines of (5)

(5)  $[[[\text{CLOSURE PRO avere un figlio}]]] = \lambda x.\lambda w.\exists e'.\text{HAVE-A-CHILD}(e', w) \ \& \ \text{AGENT}(x, e', w)$   
 We also assume, following Grano (2019), that the denotation for *convincere* takes a property of events *P* and two individuals *x* and *y* and returns another event property such that there is a convincing event with agent *y* and patient *x*, which causes a rational attitude eventuality with experiencer *x* and property *P* (see Grano 2019 for rational attitudes as a uniform class including belief and intention).

(6)  $[\text{convincere}] = \lambda P.\lambda x.\lambda y.\lambda e.\exists e'.\text{CONVINCE}(e) \ \& \ \text{AGENT}(y, e) \ \& \ \text{PATIENT}(x, e)$   
 $\ \& \ \text{CAUSE}(e, e') \ \& \ \text{RATIONAL-ATTITUDE}(e) \ \& \ \text{EXPERIENCER}(x, e) \ \& \ P(e)$

Crucially, Grano (2024) suggests that the semantic encoding of intention requires eventuality abstraction of their complements, since the event argument must be causally related to the attitude eventuality. We propose that, in Italian, this relation is contributed specifically by *a*, thereby inducing the ‘cause-to-intend’ meaning. On the other hand, *di* simply selects for a proposition with an abstracted individual argument, connecting the attitude content with the attitude eventuality of the matrix clause, thus inducing a ‘cause-to-believe’ reading.

**Further issues** Interestingly, only (1a) can be rephrased with an indicative complement. In contrast, when the embedded clause is subjunctive, the interpretation aligns with that of (1b). This aligns with Grano’s (2024: ft26) suggestion that existential closure occurs at a position below indicative Mood but above subjunctive Mood. Cinque (2006: 110) similarly notes a distinction in transparency effects, contrasting subjunctive and infinitive (“irrealis”) complement with indicative forms. Together, these observations from Grano and Cinque independently imply a reduced structural size for subjunctive clauses, consistent with the parallel observed between *convincere-a-infinitive* and *convincere-che-subjunctive* below.

(7) Gianni ha convinto Mario che [abbia un figlio.  $\rightsquigarrow$  (1b)]/[ha un figlio  $\rightsquigarrow$  (1a)]

Gianni<sub>1</sub> convinced Mario<sub>2</sub> that [*pro*<sub>2</sub> has.SUBJ a son]/[*pro*<sub>1/2</sub> has.IND. a son]

More aspects will be addressed, such as the irrealis property of *a-infinitive* (Wurmbrand 2001), empirical arguments for the existential closure, other relevant syntactic contexts (e.g., *avere paura di/a* ‘to be afraid of’), the syntax of *di/a* (along the lines of Bocci & Rizzi (2017) and Belletti (2017), respectively).

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