In the mood for intention

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Agency and Intentions in Language 2
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The question

- **A central question for linguistic theory:** How does the form (syntax) of a complex expression relate to its meaning (semantics)?

- **This talk:** How does the syntax of an intention report help inform our understanding of its semantics?

- **More specifically:** Why does *intend* pattern like *want* and unlike *hope* in rejecting finite indicative complements?

1. I intend/want/hope [to go to the park].
2. I intend/want/hope [for John to go to the park].
3. I *intend/*want/hope [that John goes to the park].

(* = judged unacceptable)
Roadmap

- Background on *want* and *hope*
- New cross-linguistic data on *intend*
- Previous literature
- Core proposal
- Beyond *intend*: Independent support
- Conclusions
Background on mood choice

- **Mood choice:** What factors influence the relative distribution of indicative and subjunctive clauses cross-linguistically?

- For example, why does French *croire* ‘believe’ go with indicative and *vouloir* ‘want’ with subjunctive?

  (4) Jean *croit* que Marie *est* ici.
  ‘Jean believes that Marie *is* (IND) here.’

  (5) Jean *veut* que Marie *soit* ici.
  ‘Jean wants that Marie *be* (SBJV) here.’

- Portner and Rubinstein’s (2012) **Proto-standard analysis:** A predicate selects the subjunctive iff it has a comparative semantics.

- Insofar as ‘want’ involves comparison (Heim 1992 et seq.) whereas ‘believe’ does not, the facts in (4)–(5) are captured.
Background, cont’d.

▶ A well-known problem for the proto-standard analysis: ‘hope’

(6) Jean espère que Marie est ici.

‘Jean hopes that Marie is (IND) here.’

▶ ‘Want’ and ‘hope’ both involve comparison, yet ‘hope’ unexpectedly allows indicative complements!

▶ And it’s not just French:

<table>
<thead>
<tr>
<th>‘want’</th>
<th>‘hope’</th>
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<tbody>
<tr>
<td>Catalan</td>
<td>French</td>
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<td>SBJV</td>
<td>SBJV</td>
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<tr>
<td>SBJV</td>
<td>IND/%SBJV</td>
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Table 1: Mood selection in Romance (Data source: Portner and Rubinstein 2020)

% = inter-speaker variation in acceptability

▶ Across Romance, ‘want’ is a stable subjunctive selector whereas ‘hope’ shows both language-internal and cross-language variation in mood selection.
This asymmetry between ‘want’ and ‘hope’ has led to increasingly sophisticated theories of mood choice, sensitive to increasingly fine-grained semantic properties of preference predicates like ‘want’ and ‘hope’.

See especially Silk 2018; Portner and Rubinstein 2020; Giannakidou and Mari 2021.

My project: How does ‘intend’ fit in? How does it behave w.r.t. mood selection? And how might the semantics of ‘intend’ inform—and be informed by—theories of mood choice?
‘Intend’, ‘want’, and ‘hope’ all accept nonfinite complements (to and for-to), but only ‘hope’ accepts indicative complements:

(7) I intend/want/hope [to go to the park].
(8) I intend/want/hope [for John to go to the park].
(9) I *intend/*want/hope [that John goes to the park].

This is not an accident of English! ‘Want’ and ‘intend’ pattern together to the exclusion of ‘hope’, in language after language.
Greek

Greek ‘intend’, ‘want’, and ‘hope’ all accept subjunctive (\textit{na}) complements, but only ‘hope’ accepts indicative (\textit{oti}) complements (Giannakidou and Mari, 2021):

\begin{enumerate}
\item[(10)] a. I Ariadne \textbf{protithete na} fiji noris. \\
the Ariadne intends SBJV leave early \\
‘Ariadne intends to leave early.’

b. *I Ariadne \textbf{protithete oti} tha fiji noris. \\
the Ariadna intends IND FUT leave early

\item[(11)] a. I Ariadne \textbf{theli na} fiji noris. \\
the Ariadne wants SBJV leave early \\
‘Ariadne wants to leave early.’

b. *I Ariadne \textbf{theli oti} tha fiji noris. \\
the Ariadna wants IND FUT leave early

\item[(12)] a. I Ariadne \textbf{elpizi na} fiji noris. \\
the Ariadne hopes SBJV leave early \\
‘Ariadne hopes to leave early.’

b. I Ariadne \textbf{elpizi oti} tha fiji noris. \\
the Ariadna hopes IND FUT leave early \\
‘Ariadne hopes that she will leave early.’
\end{enumerate}

(Similar facts hold in Romanian.)
Spanish

Spanish *(tener la) intención (de)* ‘(have the) intention (of)’ accepts nonfinite and subjunctive but not indicative complements:

(13) Tengo la intención de ir al parque hoy.
    have.1SG the intention of go to the park today
    ‘I intend to go to the park today.’

(14) Tengo la intención de que Juan vaya al parque hoy.
    have.1SG the intention of that Juan go.SBJV to the park today
    ‘I intend for Juan to go to the park today.’

(15) *Tengo la intención de que Juan {va/irá}
    have.1SG the intention of that Juan go.PRES.IND/go.FUT.IND
    al parque hoy.
    to the park today

(Similar facts hold in Catalan and Portuguese.)
French *avoir l’intention* accepts nonfinite complements but rejects both subjunctive and indicative complements:

(16) J’ai l’intention d’[aller au parc aujourd’hui].
I have the intention of going to the park today
‘I intend to go to the park today.’

(17) *J’ai l’intention [que Jean aille au parc aujourd’hui].
I have the intention that Jean go to the park today

(18) *J’ai l’intention [que Jean va/ira au parc aujourd’hui].
I have the intention that Jean go to the park today

(Similar facts hold in Italian.)
Summary

<table>
<thead>
<tr>
<th>Language</th>
<th>‘intend’</th>
<th>‘want’</th>
<th>‘hope’</th>
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<tbody>
<tr>
<td>English</td>
<td>NONFIN</td>
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<td>Italian</td>
<td>NONFIN</td>
<td>NONFIN/SBJV</td>
<td>NONFIN/%IND/SBJV</td>
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Table 3: Mood selection in Romance preference predicates

**Generalization:** ‘Intend’—like ‘want’ but unlike ‘hope’—**never** accepts indicative complements.

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1See Appendix for Romanian, Catalan, Portuguese, and Italian ‘intend’ data.
Previous approaches to mood choice

- **Generalization:** ‘Intend’ — like ‘want’ but unlike ‘hope’ — **never** accepts indicative complements.

- **Question:** Are any previous approaches to mood choice successful in capturing the above generalization?

- **Answer:** No!
  - On the next slide, we'll consider Portner and Rubinstein 2020.
  - See appendix for Silk 2018; Giannakidou and Mari 2021.
Portner and Rubinstein 2020 (PR20)

Why does French vouloir ‘want’ require subjunctive mood whereas espérer ‘hope’ accepts indicative mood?

PR20: Sometimes, desire predicates that obey certain belief-like rationality constraints (like ‘hope’) enable indicative:

(19)  
  a. I want/#hope to be immortal. REALISM  
  b. I want/#hope to marry Al and I want/#hope to marry Bo. CONSISTENCY

Problem: ‘intend’ behaves like ‘hope’ and unlike ‘want’ in this respect (Condoravdi and Lauer 2016; Grano 2017):

(20)  
  a. #I intend to be immortal.  
  b. #I intend to marry Al and I intend to marry Bo.

PR20 thus wrongly predict ‘intend’ to pattern like ‘hope’ and unlike ‘want’ in mood choice.
The logic of the core proposal, in a nutshell

- **Premise 1:** Intention reports encode causally self-referential content.
- **Premise 2:** Encoding causally self-referential content requires abstraction over the complement clause’s event argument.
- **Premise 3:** Subjunctive and nonfinite clauses enable event abstraction but indicative clauses do not.
- **Conclusion:** Intention reports accept subjunctive and nonfinite complements but reject indicative complements.
The content of an attitude is its satisfaction conditions (Searle, 1983).

Unlike beliefs and desires, intentions have causally self-referential satisfaction conditions (Harman, 1976; Searle, 1983; Ludwig, 2016):

(21) Jones₁ believes [she₁ ’ll lose the election].
    → Belief is satisfied (true) iff Jones loses the election.

(22) Jones₁ wants [PRO₁ to lose the election].
    → Desire is satisfied (fulfilled) iff Jones loses the election.

(23) Jones₁ intends [PRO₁ to lose the election].
    → Intention is satisfied (carried out) iff Jones’s intention leads, by way of a plan she has, to losing the election.

If Jones loses the election, but not as a result of her intention, then her intention has not been carried out.
How to break the causal chain: Case study 1

CONTEXT: One morning, I decide that it would be relaxing to get out in nature, so I form the intention to go on a hike later in the day. But soon I forget all about my intention to go on a hike, and I sit down on the couch to spend the rest of the day watching TV. Shortly thereafter, a friend visits and coaxes me out of the house under the pretext of going for a drive. One thing leads to another, and, soon enough, we’re parked somewhere and setting off on a trail. I go on a hike.

ASSESSMENT: I intended to go on a hike, and I did go on a hike. But did I satisfy (carry out) my earlier intention to go on a hike? No! Because that intention played no causal role in the eventual hike.
How to break the causal chain: Case study 2

**CONTEXT:** Betty aims her gun at someone with the intention of shooting and killing them. Her intention “makes her nervous and nervousness causes her to pull the trigger” (Harman 1976: 445); the gun fires and the target is killed.

**ASSESSMENT:** Betty intended to kill the person. And she did kill them. But did she satisfy (carry out) her intention to do so? No! Because although the intention did play a causal role in the killing, it did not do so “in the right way.”

**Harman’s conclusion:** “a positive intention to do something is the intention that that very intention will lead in a more or less explicitly specified way to one’s doing the thing in question” (p. 445)
The logic of the core proposal, in a nutshell

- **Premise 1:** Intention reports encode causally self-referential content. ✓

- **Premise 2:** Encoding causally self-referential content requires abstraction over the complement clause’s event argument.

- **Premise 3:** Subjunctive and nonfinite clauses enable event abstraction but indicative clauses do not.

- **Conclusion:** Intention reports accept subjunctive and nonfinite complements but reject indicative complements.
A semantics for intention reports, encoding causal self-reference:

\[(24) \ [\text{Jones intends to lose}]^w = \exists s \ \text{INTENTION}(s,w) \ & \ \text{HOLDER}(j,s,w) \ & \ \forall w' \in \text{CONTENT}(s): \exists e \ \text{CAUSE}(s,e,w') \ & \ \text{LOSE}(e,w') \ & \ \text{AGENT}(j,e,w') \]

where \( \text{CAUSE}(s,e,w') = s \text{ causes } e \text{ in } w' \), by a way of a plan that \( \not\exists \ [\text{HOLDER}(x,s,w)] \) has

\( \approx \) ‘There is some intention \( s \) held by Jones, and all worlds compatible with the content of \( s \) are worlds there is some event \( e \), \( s \) causes \( e \) by way of a plan that Jones has, and \( e \) is an event of Jones losing.’
Causal self-reference and event abstraction

How to carry out (25) compositionally?

(25) \[
\square [\text{Jones intends to lose}]^w = \\
\forall s \ \text{INTENTION}(s,w) \ \& \ \text{HOLDER}(j,s,w) \ \& \ \forall w' \in \\
\text{CONTENT}(s): \exists e \ \text{CAUSE}(s,e,w') \ \& \ \text{LOSE}(e,w') \ \& \\
\text{AGENT}(j,e,w')
\]

Because \text{CAUSE} (like causatives in general: Higginbotham 1983; Thomason 2014) is a relation to an event, the complement clause must instantiate event abstraction:

(26) \[
\square [\text{to lose}]^{w,t} = \lambda e. \lambda x. \lambda w'. \text{LOSE}(e,w') \ \& \ \text{AGENT}(x,e,w')
\]

(27) \[
\square [\text{intend}]^{w,t} = \lambda P. \lambda x. \lambda s. \text{INTENTION}(s) \ \& \ \text{HOLDER}(x,s,w) \\
\ \& \ \forall w' \in \text{CONTENT}(s): \exists e \ \text{CAUSE}(s,e,w'): P(e)(x)(w')
\]
The logic of the core proposal, in a nutshell

- **Premise 1:** Intention reports encode causally self-referential content. ✓

- **Premise 2:** Encoding causally self-referential content requires abstraction over the complement clause’s event argument. ✓

- **Premise 3:** Subjunctive and nonfinite clauses enable event abstraction but indicative clauses do not.

- **Conclusion:** Intention reports accept subjunctive and nonfinite complements but reject indicative complements.
Event abstraction and mood choice

▶ Mood choice is known to interact with argument abstraction:
▶ Control infinitives induce subject argument abstraction (Chierchia, 1989):

(28) a. Jo claims to be a genius. ← obligatory de se
    b. Jo claims that he is a genius.

▶ Nonfinite and subjunctive clauses induce time argument abstraction (Portner, 2017, 2018):

(29) a. Kim believed Jo to be a genius. ← obligatory ‘SOT’
    b. Kim believed that Jo was a genius.

▶ Proposal: Subjunctive and nonfinite clauses enable event abstraction but indicative clauses do not (cf. Portner 2018: 117). (Event abstraction as a sufficient but not necessary condition for subjunctive/nonfinite mood.)
The logic of the core proposal, in a nutshell

- **Premise 1:** Intention reports encode causally self-referential content. ✓

- **Premise 2:** Encoding causally self-referential content requires abstraction over the complement clause’s event argument. ✓

- **Premise 3:** Subjunctive and nonfinite clauses enable event abstraction but indicative clauses do not. ✓

- **Conclusion:** Intention reports accept subjunctive and nonfinite complements but reject indicative complements.
Independent support

Independent support for the proposal that only subjunctive and nonfinite clauses enable event abstraction comes from the syntax of . . .

- Anankastic conditional antecedents
- Perception and memory reports
- Other predicates that encode intention like ‘aim’, ‘attempt’, ‘strive’, ‘try’, etc.
- Belief-/intention-hybrid predicates like ‘persuade’ and ‘decide’
- Causative and aspectual predicates

Here we’ll consider the first two items only; see Appendix for the rest.
Anankastic conditionals

*Plan, hope, and expect* allow both nonfinite and indicative complements, with little detectable difference in meaning:

(30) I *plan/hope/expect* {to get a job/that I’ll get a job}.

But in an anankastic conditional, only nonfinite is felicitous:

(31) If you *plan/hope/expect* to get a job, you have to send out applications.

(32) ??If you *plan/hope/expect* that you’ll get a job, you have to send out applications.

➤ **Sæbø’s (2001) generalization:** Anankastic conditional antecedents require an expression of *intention*.

➤ This generalization, coupled with (31)-(32), further reinforces the link between *intention* and *nonfiniteness*. 
Beyond intention: Perception and memory reports

Higginbotham 1983, 2003: See and remember relate to an event when they take bare-infinitival or gerundive complements but to a proposition when they take finite indicative complements:

(33)  a. Kim saw [Sandy open the door].  \textit{event}  
b. Kim saw [that Sandy opened the door].  \textit{proposition} 

(34)  a. Kim remembered [being in an accident].  \textit{event}  
b. Kim remembered [that she was in an accident].  \textit{prop} 

Encoding perception or memory of an event requires an open event argument:

(35)  see/remember [\lambda e \ldots] 

So the lack of eventive readings for (33-b)/(34-b) reinforces the conclusion that indicative clauses are incompatible with event abstraction.
Beyond intention: Perception and memory reports

Similar facts hold for Greek:

(36) O Nicholas *idhe* ton Flavio *na* kleini tin porta. 
the Nicholas saw the Flavio SBJV close the door 
‘Nicholas saw Flavio closing the door.’ (GM21: 227)

(37) O Nicholas *idhe* oti o Flavio eklise ton porta. 
the Nicholas saw that.IND the Flavio closed the door 
‘Nicholas saw that Flavio closed the door.’ (GM21: 227)

(38) O Nicholas *thimate* *na* kleini ti porta. 
the Nicholas remembered SBJV close the door 
‘Nicholas remembered closing the door.’ (GM21: 48)

(39) O Nicholas *thimate* oti ekleise tin porta. 
the Nicholas remembered that.IND closed the door 
‘N. remembered that he closed the door.’ (GM21: 48)
Cross-linguistically, ‘intend’ accepts nonfinite and subjunctive complements but rejects indicative complements.

This fact poses a challenge to recent theories of mood choice.

Proposal: Intention reports have causally self-referential content whose encoding requires event abstraction, which nonfinite and subjunctive clauses can provide but indicative clauses cannot.

Independent support for the proposal comes from a variety of other phenomena, including anankastic conditional antecedents and perception and memory reports.
Implications

For the semantics of intention reports: There is grammatical evidence (in mood choice patterns) for the view from philosophy that intentions have causally self-referential satisfaction conditions.

For mood choice: A comprehensive theory of mood choice must be sensitive to the presence vs. absence of event abstraction.

Since event abstraction is a sufficient but not necessary condition for subjunctive/nonfinite clauses, the account leaves room for other factors to influence mood choice, perhaps ultimately dovetailing with the sorts of accounts proposed by Portner and Rubinstein 2020 and others to explain want vs. hope.
Acknowledgments

► Thanks to my language consultants Charlène Gilbert and Barbara Vance (French), Juan Escalona Torres and Karlos Arregi (Spanish), Jairo Nunes (Portuguese), Alex Cherici (Italian), Elena Castroviejo (Catalan), and Mihaela Moreno (Romanian).

► Thanks also to audiences at The Indiana University Linguistics Syntax-Semantics Reading group and Semantics and Linguistic Theory 31 for comments on earlier versions of this presentation.

► And thank you!


The same kind of pattern holds in Romanian:

(40) a. Sper [să merg în parc].
    hope.1SG SBJV go to park
    ‘I hope to go to the park.’
    b. Sper [că voi merge în parc].
    hope.1SG that will go to park
    ‘I hope that I will go to the park.’

(41) a. Vreau [să merg în parc].
    want.1SG SBJV go to park
    ‘I want to go to the park.’
    b. *Vreau [că voi merge în parc].
    want.1SG that will go to park

(42) a. Intentionez [să merg în parc].
    intend.1SG SBJV go to park
    ‘I intend to go to the park.’
    b. *Intentionez [că voi merge în parc].
    intend.1SG that will go to park
Catalan behaves likewise:

(43) Tinc la intenció d’[anar al parc avui].
    have.1SG the intention of go to the park today
    ‘I intend to go to the park tomorrow.’

(44) Tinc la intenció [que en Joan vagi al parc avui].
    have.1SG the intention that the Joan go.SBJV to the park today
    ‘I intend for Joan to go to the park tomorrow.’

(45) *Tinc la intenció [que en Joan va/anirà al parc avui].
    have.1SG the intention that the Joan go.IND/go.FUT.IND to the park today
And so does Portuguese:

(46) Pretendo [ir ao parque hoje].
intend.1SG go to the park today
‘I intend to go to the park today.’

(47) Pretendo [que o João vá ao parque hoje].
intend.1SG that the João go.SBJV to.the park today
‘I intend for João to go to the park tomorrow.’

(48) *Pretendo [que o João vai/irá ao
intend.1SG that the João go.IND/go.FUT.IND to.the
parque hoje].
park today
Italian is like French in this respect:

(49) \{Intendo/Ho \text{ intend.1SG}/have.1SG\} \text{ intenzione di} \{\text{andare al parco oggi}.\} \\
\text{I intend to go to the park today.}'

(50) *\{Intendo/Ho \text{ intend.1SG}/have.1SG\} \text{ intenzione} \{\text{che Giovanni vada al parco oggi}.\} \\
\text{that Giovanni go.sbjv to.the park today}

(51) *\{Intendo/Ho \text{ intend.1SG}/have.1SG\} \text{ intenzione} \{\text{che Giovanni} \{\text{va/andrà}\} \text{ al parco domani}.\} \\
\text{that Giovanni go.ind/go.fut.ind to.the park today}
Giannakidou and Mari 2021 (GM21)

- **GM21**: “[W]hen *i* intends to bring about *p*, *i* is aware that this may not happen” (p. 268), and this is why ‘intend’ takes subjunctive complements (‘SUBJECTIVE NONVERIDICALITY’):

\[(52)\] Mary **intends** to leave tomorrow, but she’s perfectly aware that this may not happen.

- **Problem**: The same is true for ‘hope’ (Scheffler 2008; Anand and Hacquard 2013):

\[(53)\] Mary **hopes** to leave tomorrow, but she’s perfectly aware that this may not happen.

- GM21 thus—like PR20—wrongly predict ‘intend’ to pattern like ‘hope’ in mood choice.
Silk 2018

Silk 2018: French ‘want’ and ‘intend’ pattern together unlike ‘hope’ in mood choice because the modal base for ‘hope’ is the subject’s belief set whereas the modal base for ‘want’ and ‘intend’ are a superset thereof, à la Heim 1992.

Problem: Silk’s theory does not easily extend beyond French.

For example, English is like French with respect to ‘want’, ‘intend’, and ‘hope’ (‘hope’ accepts indicative complements but ‘want’ and ‘intend’ do not), but English emotive factive predicates like ‘be happy/sad’ readily accept indicative complements...

(54) John is happy/sad [that it’s raining]. INDICATIVE

...even though, by Silk’s Heim-1992-based logic, their modal base must be a superset of the subject’s belief set.
Encoding causal self-reference, with individual and temporal *de se*

A semantics for intention reports, encoding causal self-reference:

\[ \text{Jones intends PRO to lose} \] \( w, t \)

\[ \exists s \text{ INTENTION}(s, w) \& \text{HOLDER}(j, s, w) \& \forall \langle w', t', y \rangle \in \text{CONTENT}(s) : \exists e \text{ CAUSE}(s, e, w') \& \exists t'' > t' : \tau(e) = t'' \& \text{LOSE}(e, w') \& \text{AGENT}(y, e, w') \]

where \text{CAUSE}(s, e, w') = s \text{ causes } e \text{ in } w'\text{, by a way of a plan that } \nu_x[\text{HOLDER}(x, s, w)] \text{ has}

\[ \approx \text{‘There is some intention } s \text{ held by Jones, and all alternatives compatible with the content of } s \text{ are such that there is some event } e, s \text{ causes } e \text{ by way of a plan that Jones has, and } e \text{ is an event of Jones losing.’} \]

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\(^2\)Attitude alternatives are keyed to contentful eventualities (Hacquard, 2006), and consist of world-time-individual triples (Pearson, 2016).
Compositional implementation

(56)  \([\text{PRO to lose}]^{w,t} = \lambda e.\lambda x.\lambda t'.\lambda w'.\tau(e) = t' \& \text{LOSE}(e,w') \& \text{AGENT}(x,e,w')\]

(57)  \([\text{intend}]^{w,t} = \lambda P.\lambda x.\lambda s.\text{INTENTION}(s) \& \text{HOLDER}(x,s,w) \& \forall \langle w',t',y \rangle \in \text{CONTENT}(s): \exists e \text{ CAUSE}(s,e,w') \& \exists t'' > t': P(e)(y)(t'')(w')\]
Implementing event abstraction

**Background assumption:** VPs introduce event arguments that get existentially closed by Aspect (cf. Kratzer 1998: 17):

\[(58)\]

\[\lambda P. \lambda t. \lambda w. \exists e: t \subseteq \tau(e) \& P(e)(w) = 1\]

\[\lambda P. \lambda t. \lambda w. \exists e: \tau(e) \subseteq t \& P(e)(w) = 1\]

Then, we can define subjunctive/nonfinite-only variants of Aspect, with “passing up” of event variable:

\[(59)\]

\[\lambda P. \lambda e. \lambda t. \lambda w. t \subseteq \tau(e) \& P(e)(w) = 1\]

\[\lambda P. \lambda e. \lambda t. \lambda w. \tau(e) \subseteq t \& P(e)(w) = 1\]
**Intention-like predicates**

Other predicates that have goal-oriented, causally self-referential content (Jackendoff’s 1995; 2007 ‘actional attitudes’) also disallow indicative complements, as expected:

(60) Kim *aimed/at tempted/tried/strove/sought* to get good grades.

(61) *Kim aimed/at tempted/tried/strove/sought* that she would get good grades.

*Plan* as counterexample (cf. Jackendoff and Culicover 2003: 526)?

(62) Kim *planned* {to get / that she would get} good grades.

Possibly connected to another sense of *plan*:

(63) Kim planned that it would take 2 hours to get there.

= Kim planned/counted on it taking 2 hours to get there.
Belief-/intention-hybrid predicates

Some verbs (e.g., persuade, decide) encode intention with nonfinite complements but not with indicative complements:

(64) a. Kim **persuaded** Sandy to lose the race.
    $\rightarrow$ Sandy **intended** to lose.

    b. Kim **persuaded** Sandy that she would lose the race.
    $\rightarrow$ Sandy **believed** she would lose.

(65) a. Kim **decided** to quit smoking.
    $\rightarrow$ Kim **intended** to quit smoking.

    b. Kim **decided** that smoking is harmful.
    $\rightarrow$ Kim **believed** that smoking is harmful.

Belief-/intention-hybrid predicates

Similar facts hold in Greek:

(66) I Ariadne epise ton Nikola na fijoun. the Ariadne persuaded the Nikolas SBJV leave ‘Ariadne persuaded Nikolas (for them) to leave.’

(67) I Ariadne epise ton Nikola oti i idea the Ariadne persuaded the Nikolas that.IND the idea tou ine kali. his is good ‘Ariadne persuaded Nikolas that his idea is good.’ (GM21: 42)

Verbs like ‘persuade’ are either polysemous or underspecified along the belief/intention divide; either way, they substantiate the link between intention and subjunctive/nonfinite mood.
Beyond intention: Causative and aspectual predicates

- Causative and aspectual predicates both plausibly operate on *eventualities* rather than *propositions*.
- Accordingly, they tend cross-linguistically to allow nonfinite or subjunctive complements but disallow indicative complements.
- Some supportive English data:

(68)  a. I *made/let/helped/had* Kim leave.
     b. I *caused/forced/compelled/drove* Kim to leave.
     c. I *began/started* to solve the problem.
     d. I *began/started/continued/stopped/finished* solving the problem.

(69)  a. *I made/caused/forced/compelled/drove* that Kim left/leaves/leave.
     b. *I began/started/continued/stopped/finished* that I solved the problem.
Beyond intention: Causative and aspectual predicates

Some supportive Greek data:

(70) Ton ekana na hasi to telefteo leoforio.

him made.1SG SBJV miss the last bus

‘I caused him to miss the last bus.’ (Rouchota 1994: 63)

(71) Arxisa na grafo.

began.1SG SBJV write.1SG

‘I began to write.’ (Roussou 2009: 1815)