ASSERTIONS VS. DIRECTIVES

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I enjoyed the pilsner.

Get me one of those.

ASSERTION

DIRECTIVE

ASSERTIONS VS. DIRECTIVES: SOME FACTOIDS

Each gets its own stereotypical clause type:

(Falling) Declarative ⇝ Assertion

(Falling) Imperative ⇝ Directive

ASSERTIONS VS. DIRECTIVES: SOME FACTOIDS

But it's not a linguistic distinction:

ASSERTIONS VS. DIRECTIVES: SOME FACTOIDS

The difference seems to be about communicative function (in some sense):

Assertions are for giving information

Directives are for prompting action

ASSERTIONS VS. DIRECTIVES: SOME FACTOIDS

This distinction does not seem to be a thing among non-human communicators.

A TAXONOMY OF ILLOCUTIONARY ACTS

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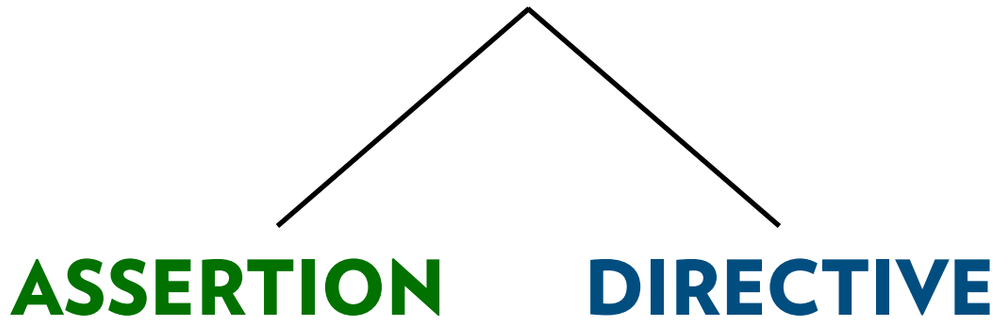

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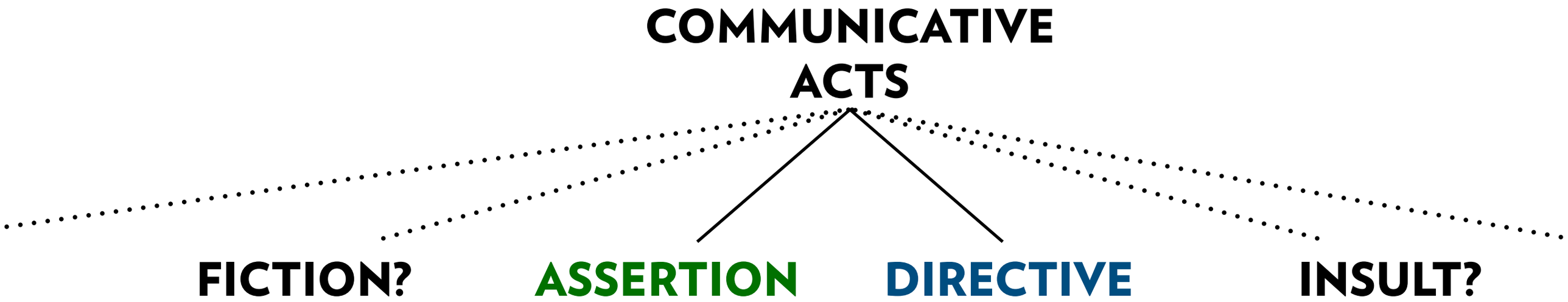

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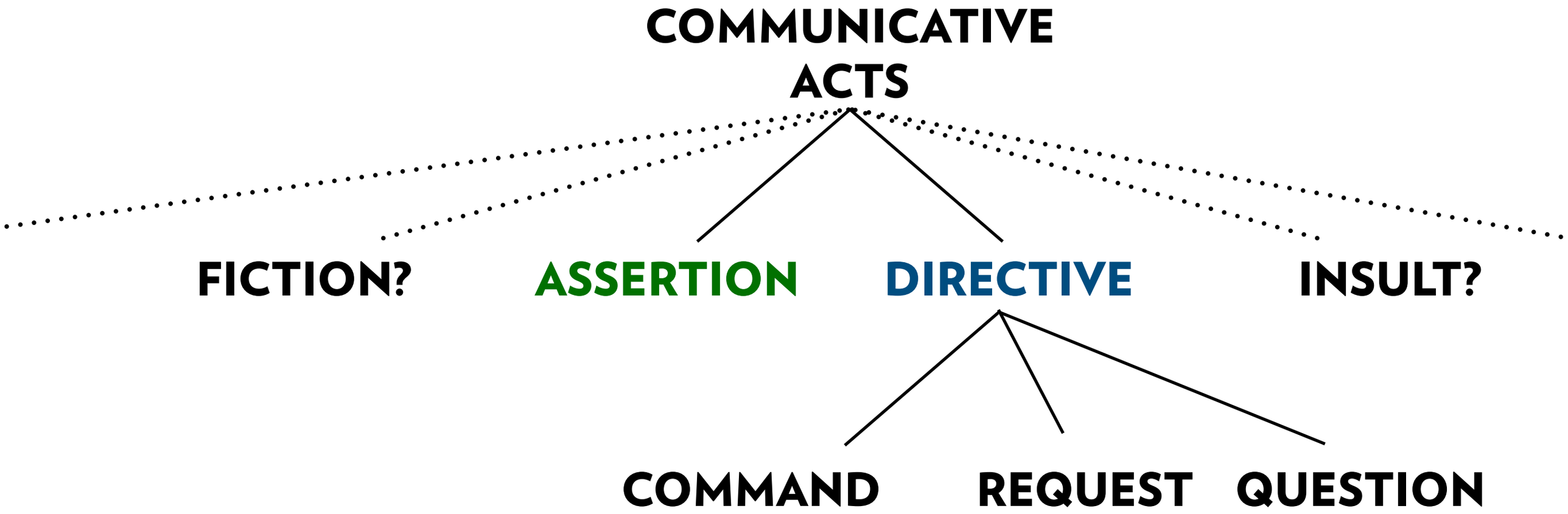

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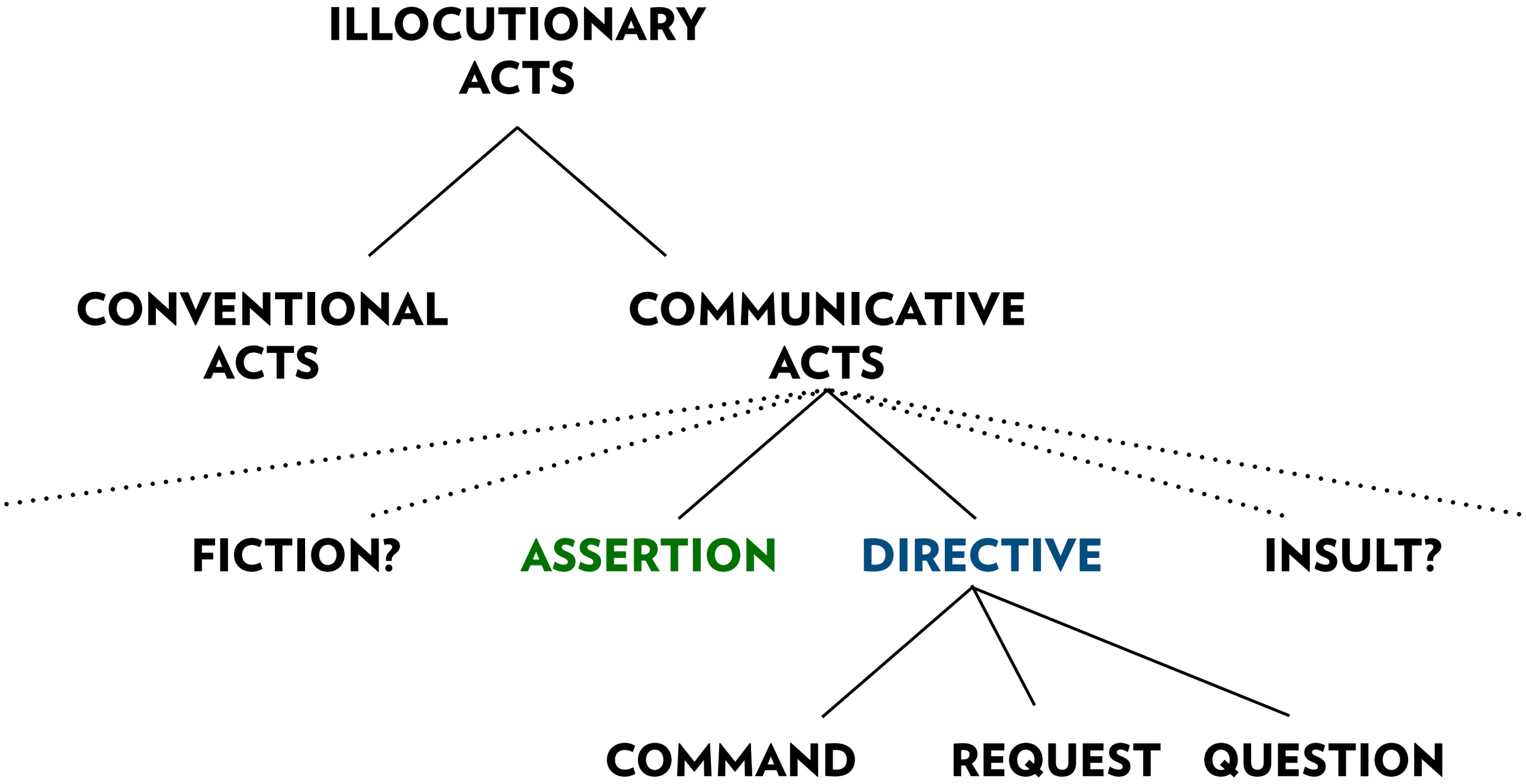

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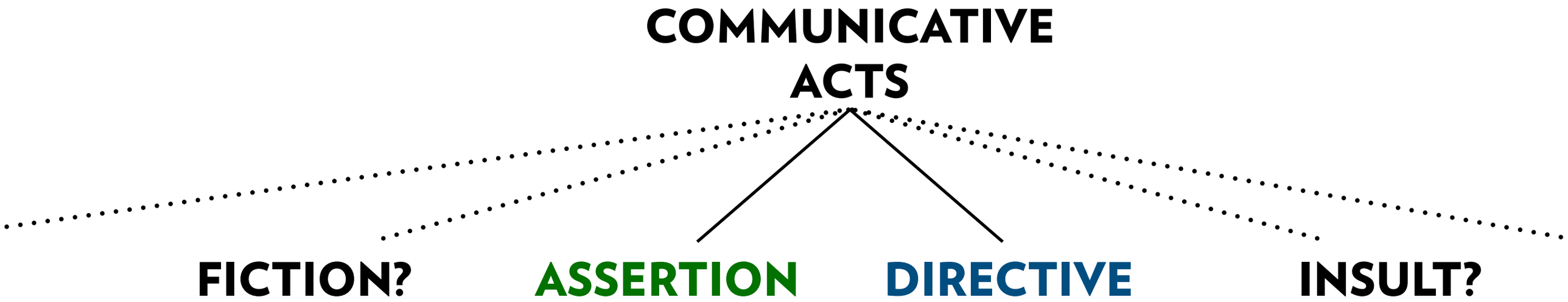
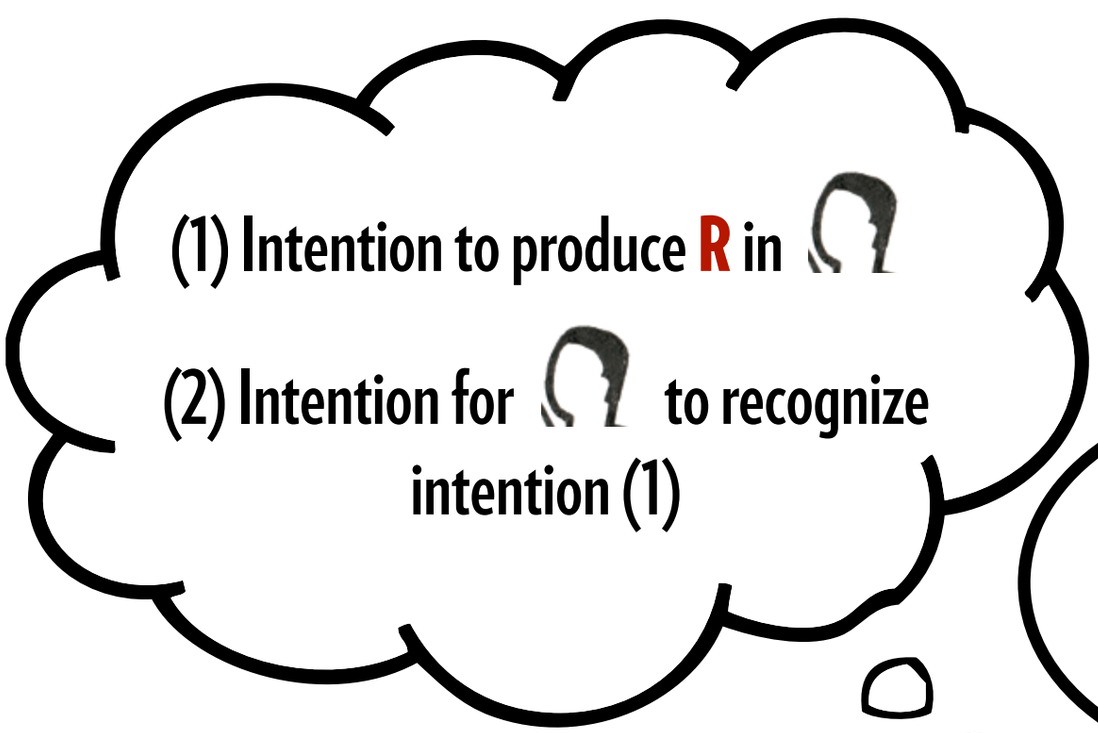
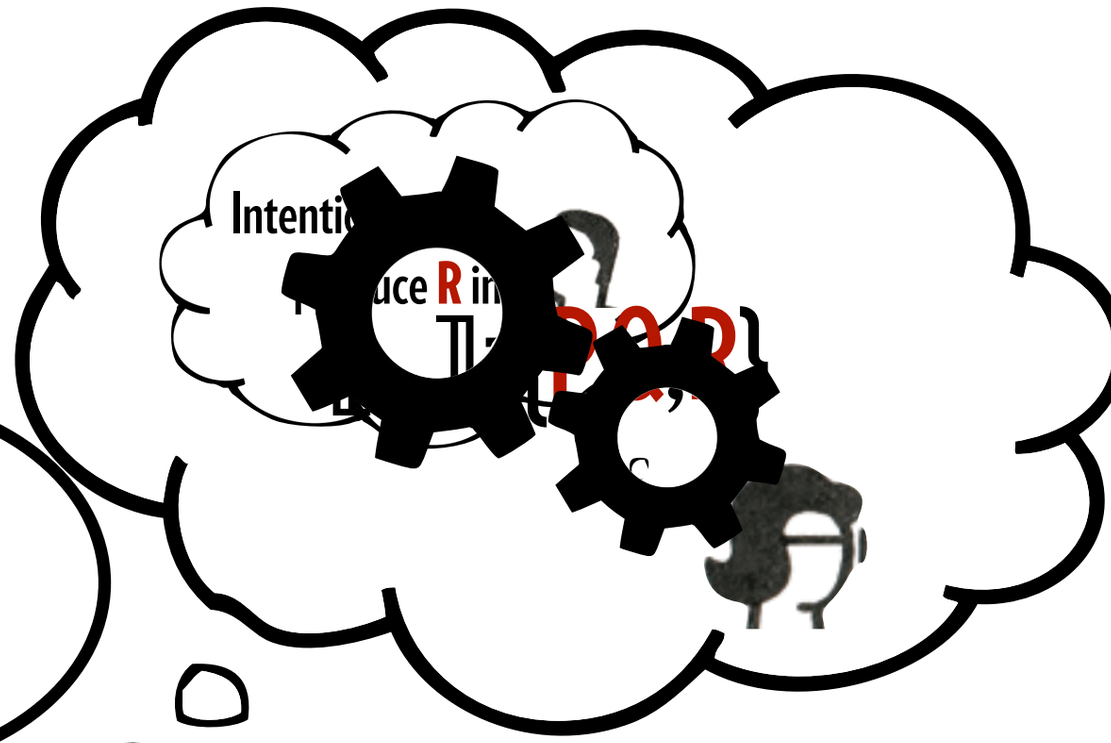


INTENTION RECOGNITION

(cf. Grice 1957, 1969)





THE ASSERTION/DIRECTIVE DISTINCTION

(cf. Grice 1968, 1969)

(1) Intention to produce **R** in 

(2) Intention for  to recognize intention (1)

Assertion

R = a belief

Directive

R = an intention

FACTOIDS?

- ✓ Communicative Function
- ✓ Nonlinguistic
- ✓ No animals
- ● Clause Type?

Buy me a drink.

Okay.

You can't buy me that drink unless you go to the bar.

Right!

So go to the bar!

IMPERATIVE INFERENCE

1. Buy me a drink.
2. You can't buy me a drink unless you go to the bar.

---

3. So go to the bar.

IMPERATIVE INFERENCE

1. Buy me a drink.
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3. So go to the bar.

1. Buy me a drink.
2. You can't buy me a drink unless you go to the bar.

---

3. So go to the beach.

IMPERATIVE INFERENCE: TWO CHALLENGES

1. **The Technical Challenge**
   How can we specify a consequence relation that accurately predicts which imperative inferences are good?

2. **The Foundational Challenge**
   What will be the subject matter of this consequence relation? What will it be a theory of?

THE TECHNICAL CHALLENGE

Ross's Paradox

1. Pet Fido.

---

2. So, pet Fido or try to take his ball.

Free Choice

1. Have a piece of cake or have some ice cream.

---

2. So, have a piece of cake.

THE TECHNICAL CHALLENGE

1. If your friend is tending bar, get us drinks and I'll find us a table.
2. Your friend is tending bar.

---

3. So, get us drinks.

1. If everything is free, have lobster or have steak.
2. Everything is free.

---

3. So, have lobster.

THE TECHNICAL CHALLENGE

Close the door.
#Leave the door open.

There are no unicorns, and there never will be any.
#Bring me a unicorn!

COMPLEX SENTENCES AND COMPLEX PLANS

(1) Fly me to the moon and let me play among the stars

(2) Make us omelettes or I'll get us some bagels

(3) Help me if you can

(4) If the manuscript is finished, send it off and I will open up a bottle of wine to celebrate.

(5) Attack if the weather is good.
The weather is good.
So, attack!

THE FOUNDATIONAL CHALLENGE

SEMANTIC VALUES: A PROPOSAL

(cf. H. P. Grice 1968; N. Charlow 2014)

Declaratives denote beliefs

⟦dogs are better than cats⟧ =

the belief that dogs are better than cats

Imperatives denote intentions

⟦buy a round⟧ =

the intention to buy a round

WHAT ARE OUR LOGICAL JUDGMENTS ABOUT?

An argument will strike us as valid iff an agent who has the beliefs and intentions denoted by the premises is rationally required to also be in the state of mind denoted by the conclusion.

INFERENCE & RATIONALITY

1. Buy me a drink.
2. You can't buy me a drink unless you go to the bar.

---

3. So go to the bar.

Means-End Coherence

An agent who intends to ϕ and believes that they must ψ in order to ϕ, but who fails to intend to ψ, is in this respect irrational.

CONSISTENCY & RATIONALITY

Close the door.
#Leave the door open.

Consistency of Intentions

An agent who intends to ϕ and who intends to ψ, but whose beliefs rule out the possibility that they will both ϕ and ψ, is in this respect irrational.

CONSISTENCY & RATIONALITY

There are no unicorns, and there never will be any.
#Bring me a unicorn!

Doxastic Requirement on Intending

An agent who intends to ϕ but whose beliefs rule out the possibility that they will ϕ is in this respect irrational.

INFERENCE & RATIONALITY

1. All women are mortal.
2. Xanthippe is a woman.

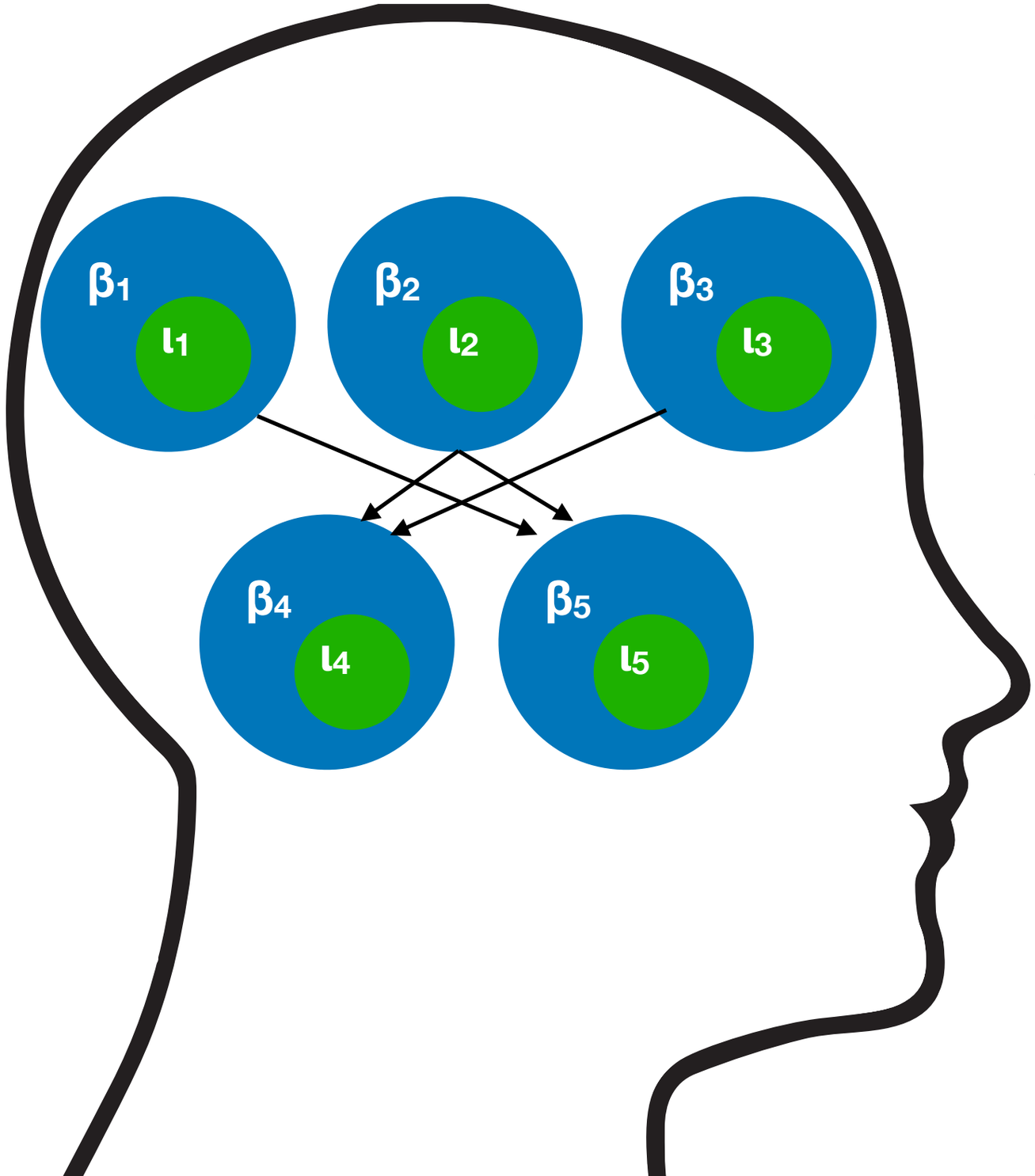
---

3. Xanthippe is mortal.

Modus Ponens Requirement

If an agent believes *p*, believes that if *p* then *q*, cares whether *q*, but fails to believe *q*, then the agent in this respect fails to be rational.

COGNITIVE MODELS



Cognitive Model

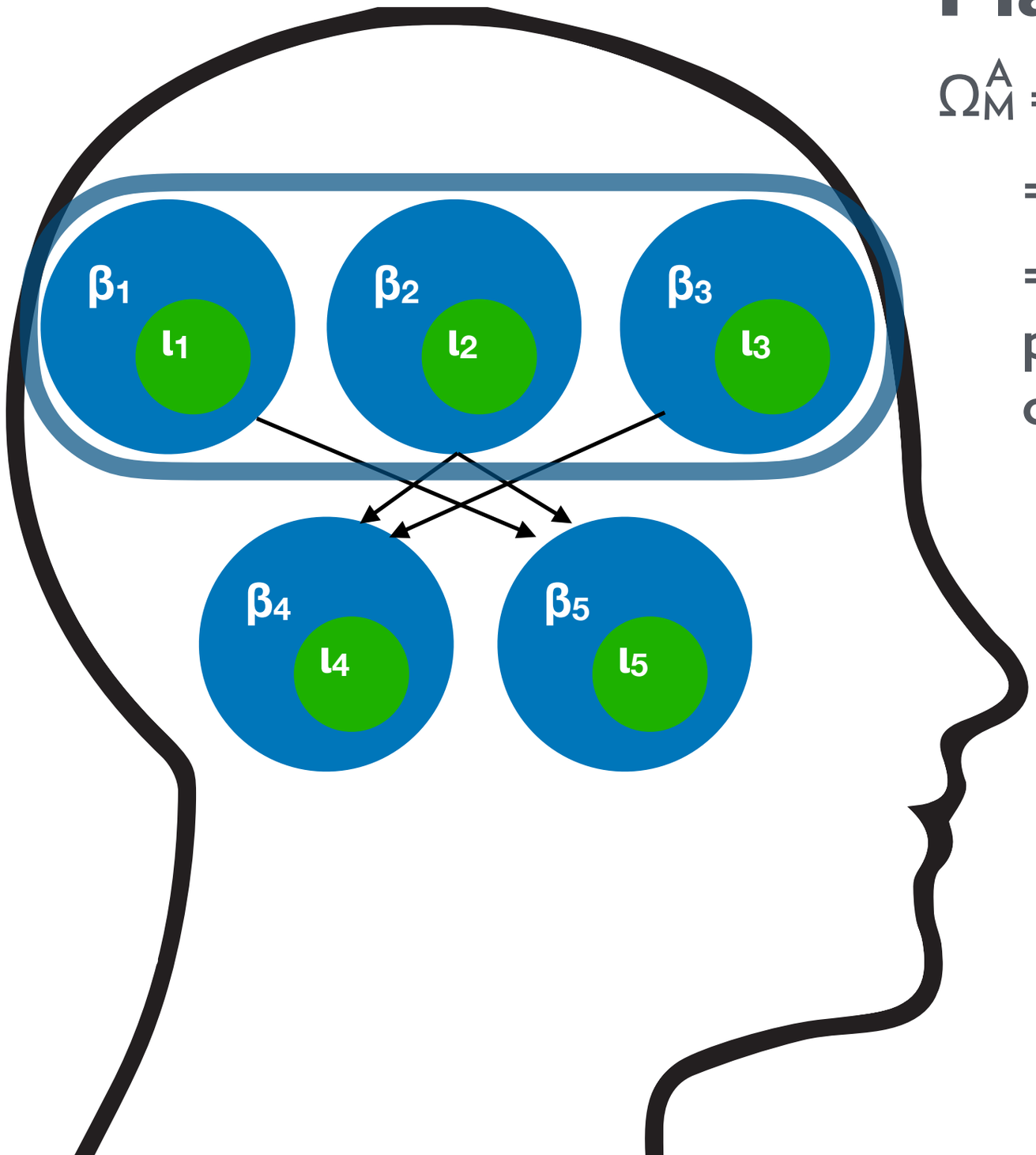
$M = \langle \Omega_M, \leq_M \rangle$

$\Omega_M \subseteq \{\langle \beta, \iota \rangle : \varnothing \subset \iota \subseteq \beta \subseteq W\}$

$\leq_M$ is a preorder on Ω_M

= an ordered set of doxastic/practical options, each representing a way that things might be, and what to do if so.

COGNITIVE MODELS



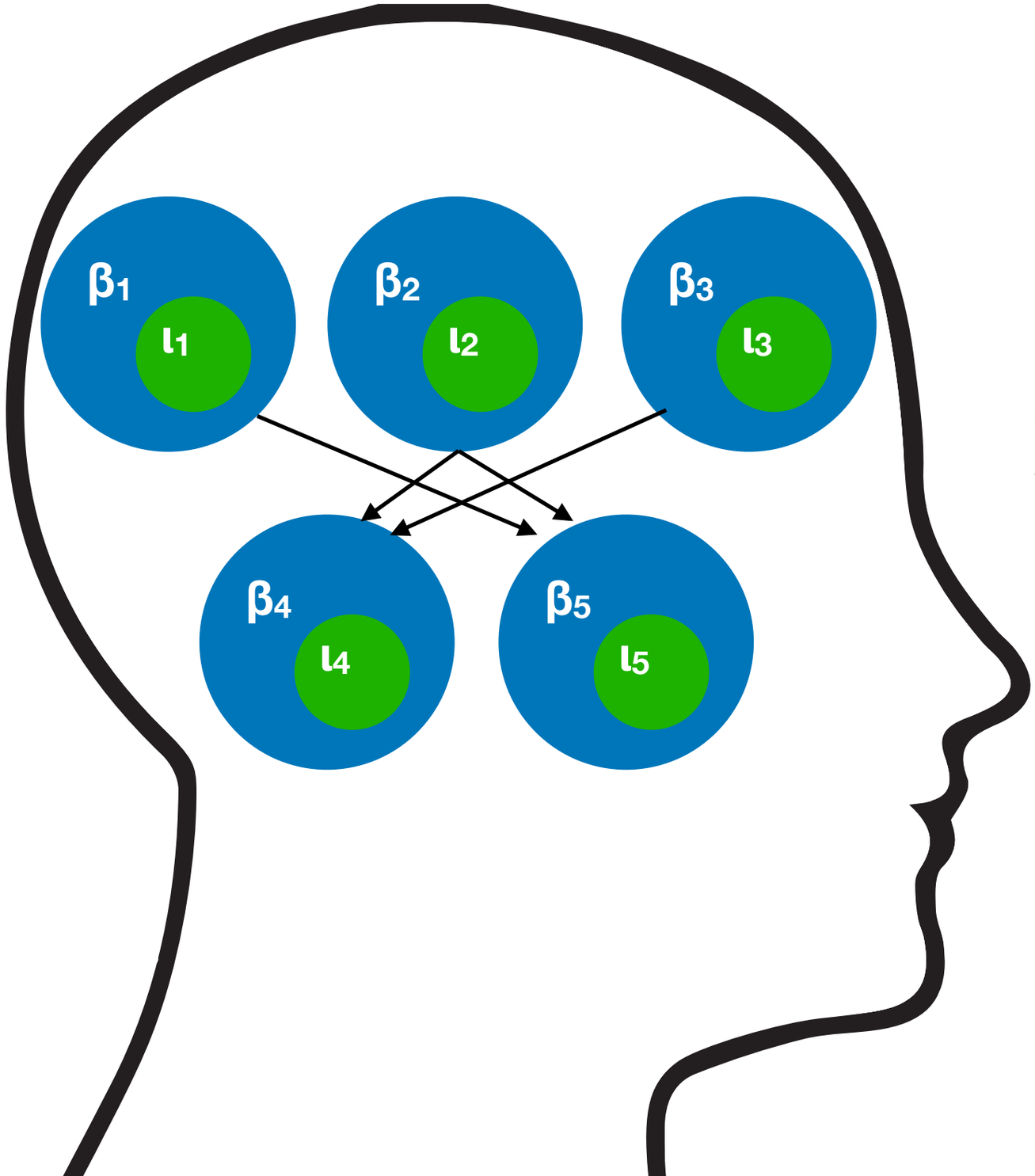
Plan A

$\Omega_M^A = \{\omega \in \Omega_M : \neg(\exists\omega')(\omega' \leq_M \omega \;\&\; \omega \not\leq_M \omega')\}$

= the set of top-ranked options

= a representation of what an agent plans to do unless their information changes

COGNITIVE MODELS



Cognitive Model

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$\leq_M$ is a preorder on Ω_M

= an ordered set of doxastic/practical options, each representing a way that things might be, and what to do if so.

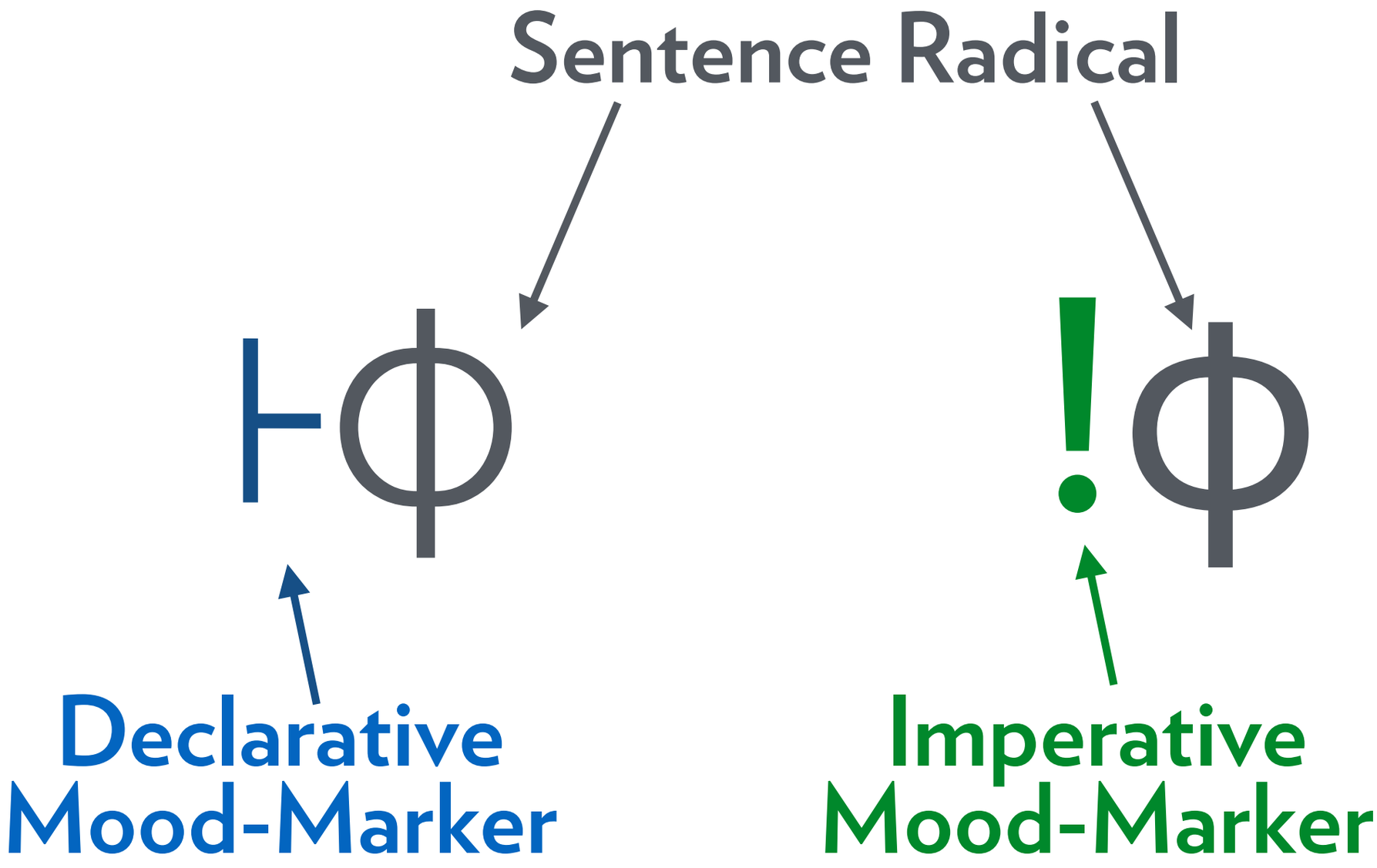
Belief State (B_M)

the union of M's top-ranked doxastic options

Intention State (I_M)

the union of M's top-ranked practical options

CLAUSE = MOOD MARKER + SENTENCE RADICAL



SENTENCE RADICALS DENOTE SETS OF WORLDS

$$(\forall \phi)\, [\![\phi]\!] \in \mathbf{W}$$

SEMANTICS

For any sentence radical ϕ:

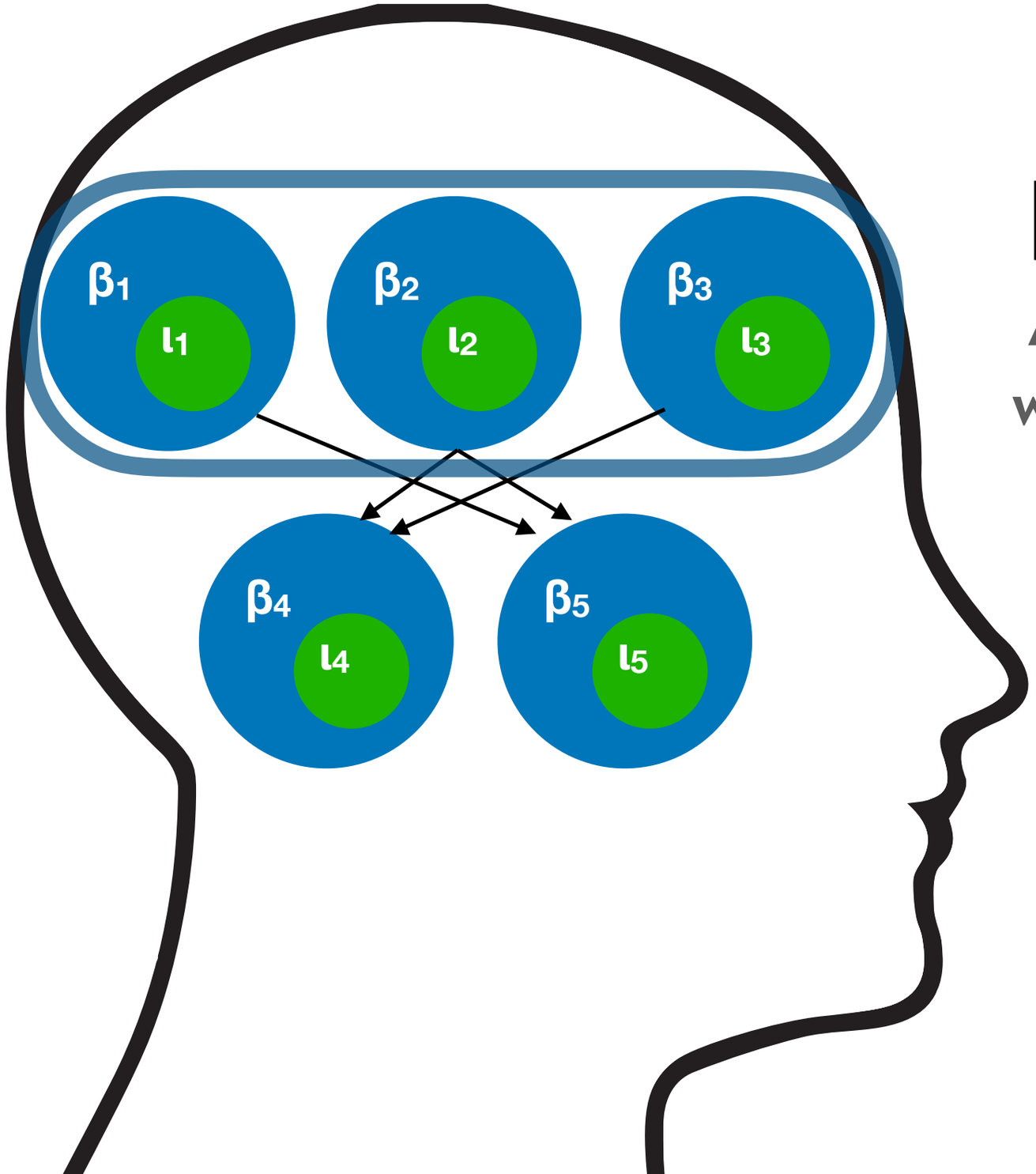
$[\![\vdash\phi]\!]$ is a belief

(namely: the belief that $[\![\phi]\!]$ is true)

$[\![!\phi]\!]$ is an intention

(namely: the intention to make $[\![\phi]\!]$ true)

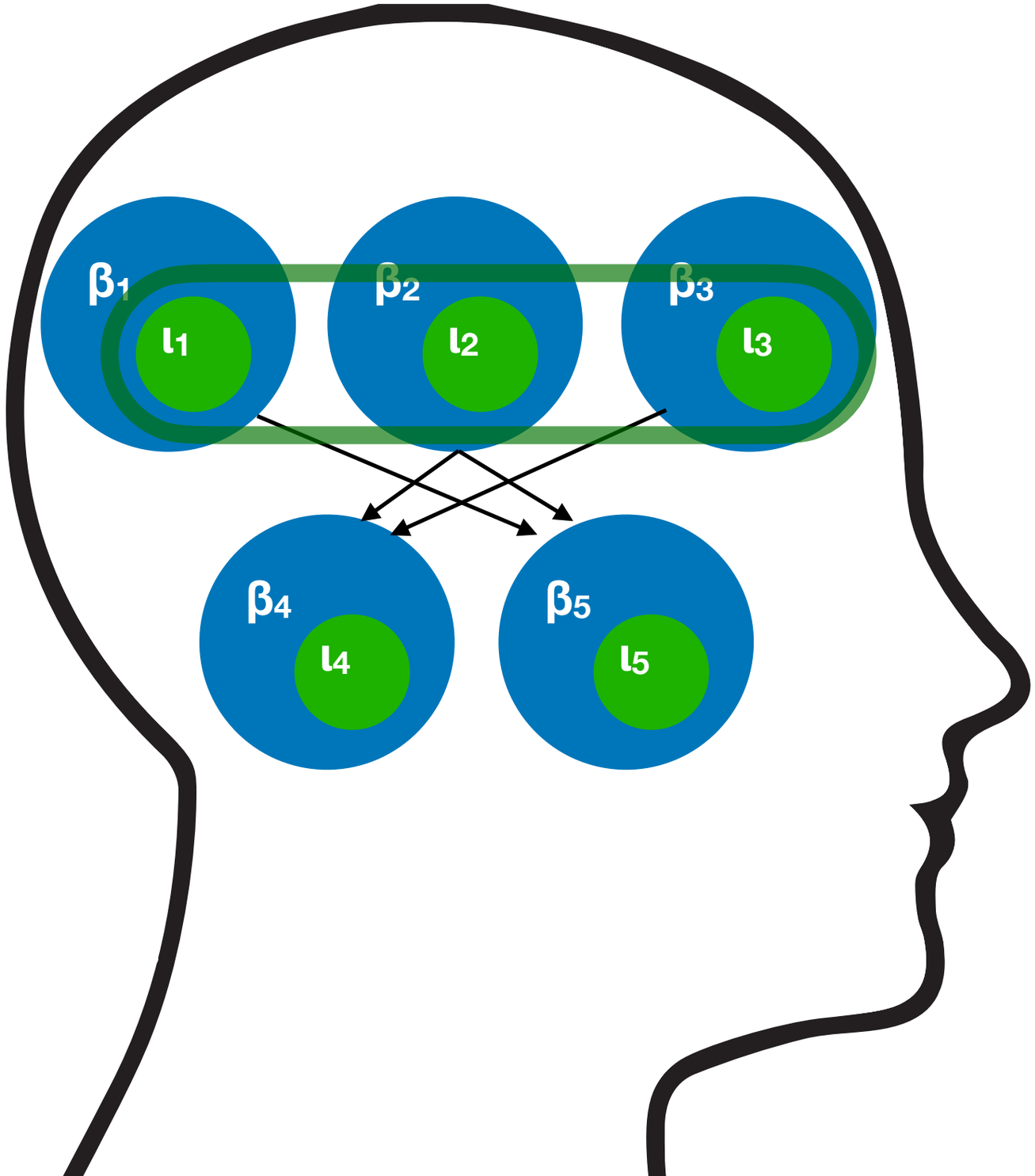
CLAUSAL SEMANTICS



$$[\![\vdash\phi]\!]^c = \lambda M \,.\, B_M \subseteq [\![\phi]\!]^c$$

A **declarative** is satisfied by models whose top doxastic options entail its content.

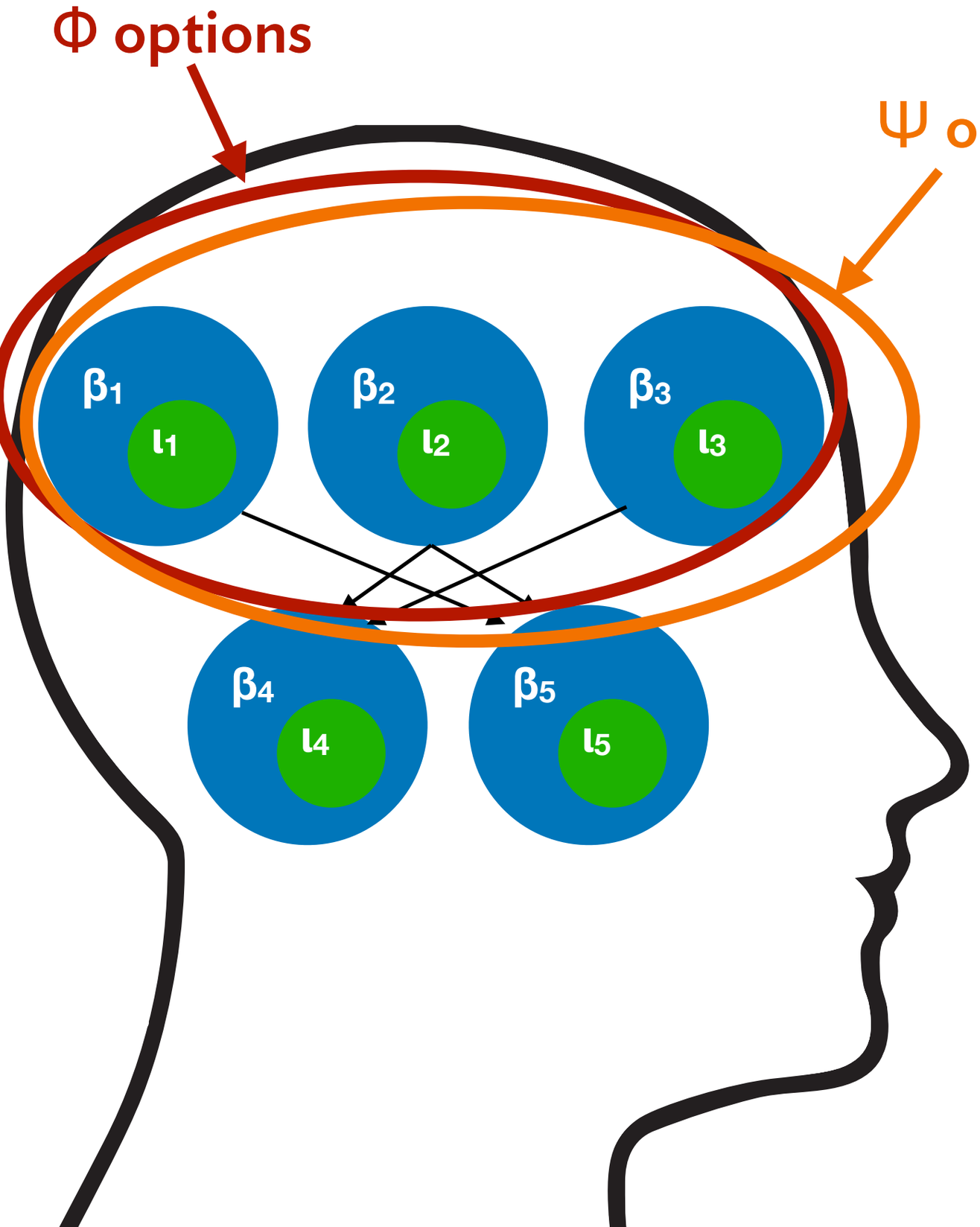
CLAUSAL SEMANTICS



$$[\![!\phi]\!]^c = \lambda M \,.\, I_M \subseteq [\![\phi]\!]^c$$

An **imperative** is satisfied by models whose top practical options entail its content.

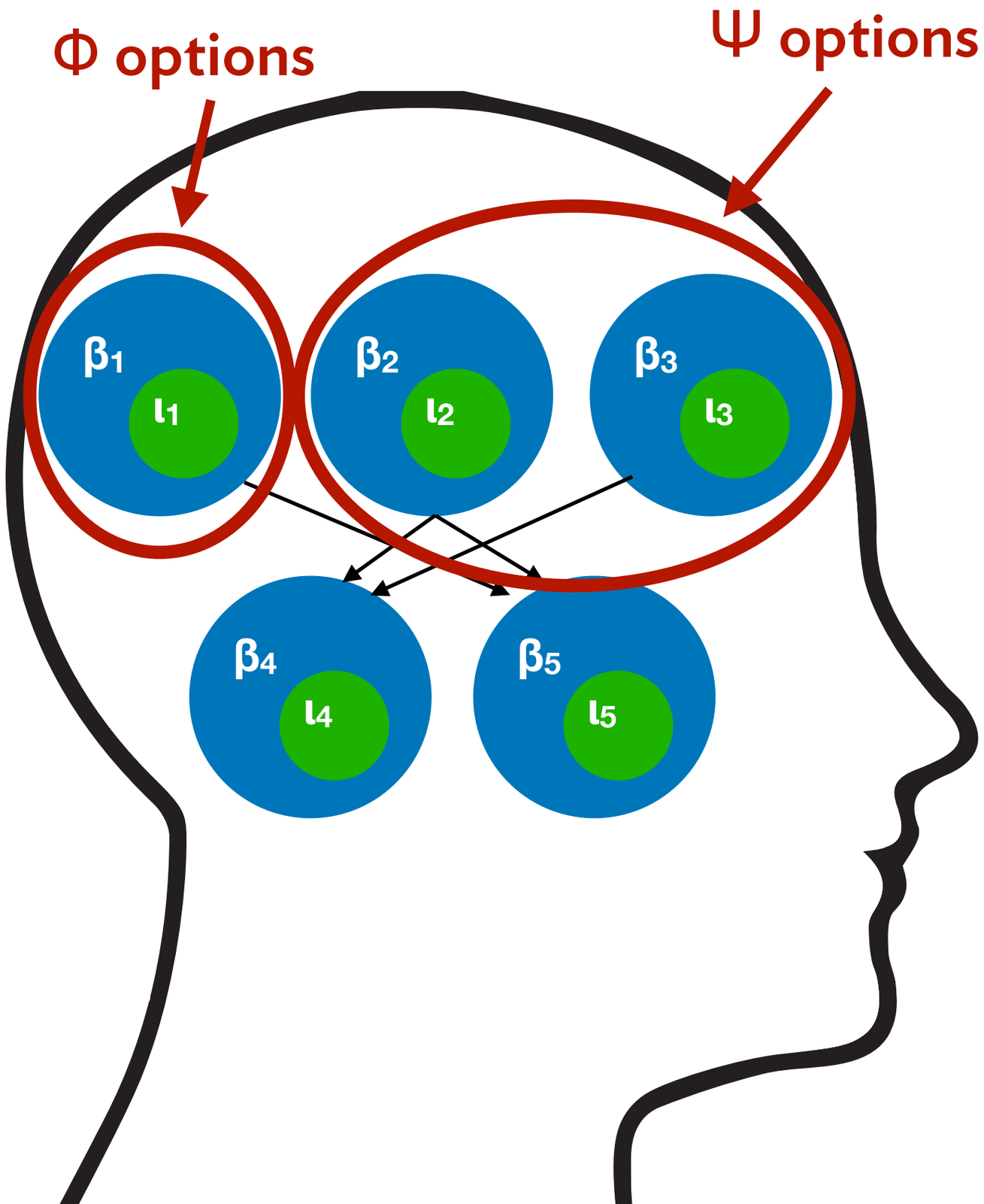
CONJUNCTION



⟦Φ and Ψ⟧ =

The property of satisfying both Φ and Ψ at the same time.

DISJUNCTION



⟦Φ or Ψ⟧ =

The property of having your top-ranked options partitioned into Φ-options and Ψ-options.

ROSS'S PARADOX

Ross's Paradox

1. Pet Fido.

---

2. So, pet Fido or try to take his ball.

make all of your top-ranked options pet-fido options

leave open some top-ranked take-Fido's-ball options

FREE CHOICE

Free Choice

1. Have a piece of cake or have some ice cream.

---

2. So, have a piece of cake.

FREE CHOICE

Free Choice

1. Have a piece of cake or have some ice cream.

---

2. So, have a piece of cake.

- This is only good if we interpret the conclusion as having a "weak reading"
  - I.e., an act of permitting, acquiescing, inviting, etc.
- So what is a weak reading?

FREE CHOICE

Free Choice

1. Have a piece of cake or have some ice cream.

---

2. So, have a piece of cake.

- A natural idea:
  Weak imperatives denote *partial* intentions (Holton 2008).

- To command someone to do X requires intending to make <u>all</u> of their practical options do-X options.

- To invite someone to do X is to intend to make <u>some but not all</u> of their practical options do-X options.

FREE CHOICE

Free Choice

1. Have a piece of cake or have some ice cream.

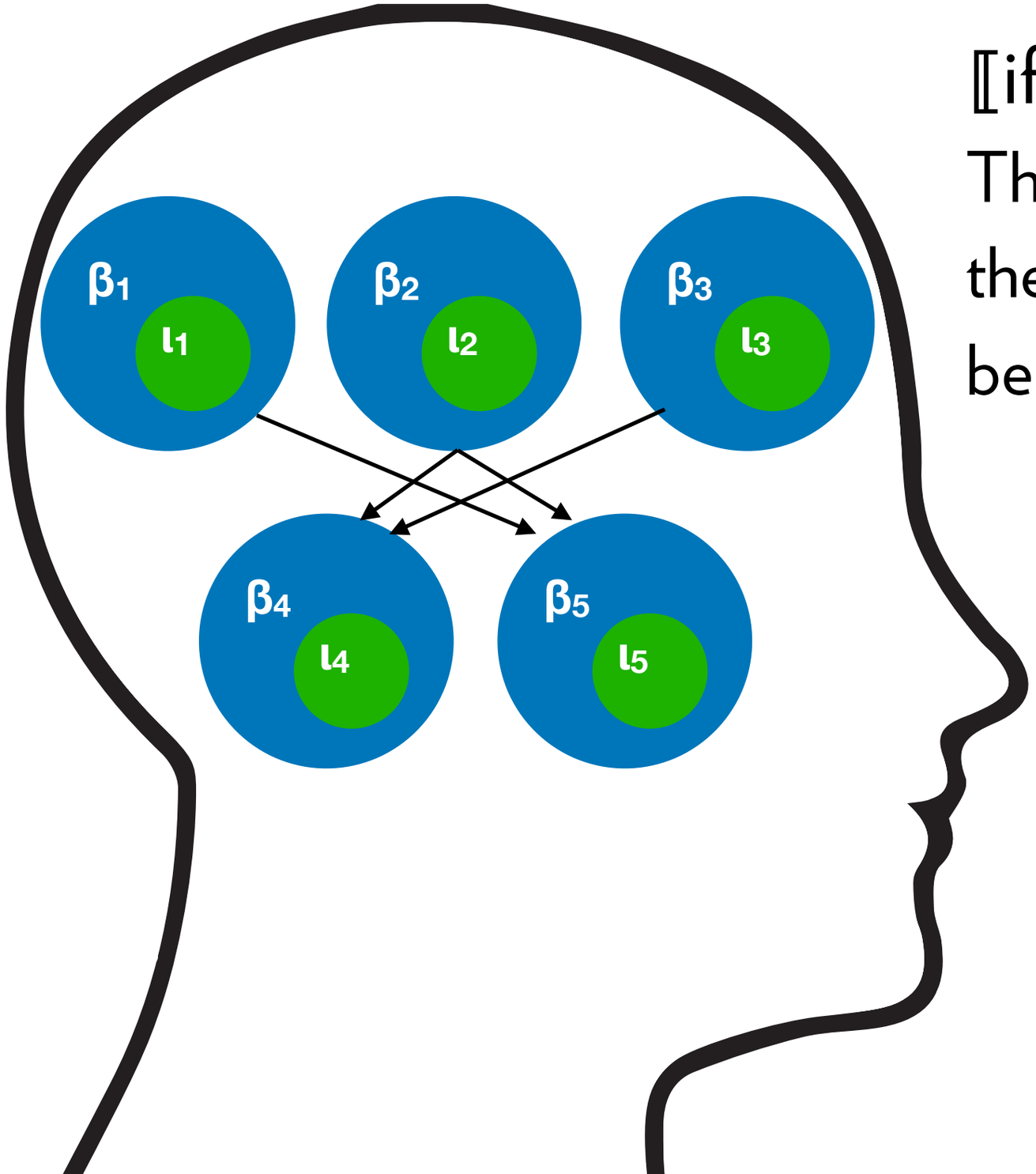
---

2. So, have a piece of cake.

entertain both have-cake options and have-ice-cream options

entertain at least some have-cake options

CONDITIONALS

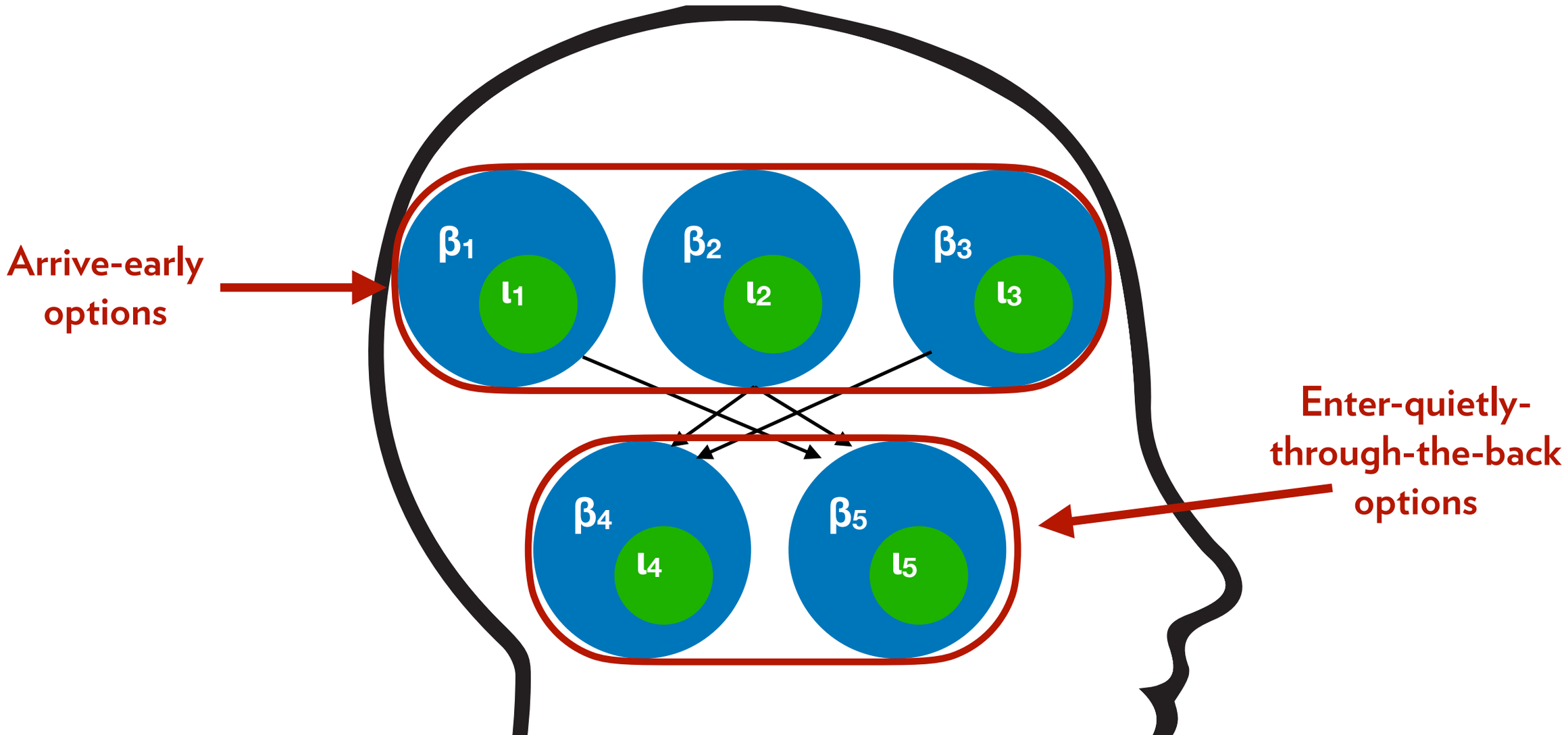


⟦if Φ then Ψ⟧ =

The property of having all of the highest-ranked Φ options be Ψ options.

“CONTRARY-TO-DUTY” IMPERATIVES

Arrive early.
If you don’t arrive early, enter quietly through the back.



CONSEQUENCE

$$\{\Phi_1 \ldots \Phi_n\} \models \Psi$$

iff

$$(\forall M) \text{ if } [\![\Phi_1]\!](M), \ldots, [\![\Phi_n]\!](M), \text{ then } [\![\Psi]\!](M)$$

Ψ follows from $\{\Phi_1 \ldots \Phi_n\}$ iff every cognitive model that satisfies all of the premises also satisfied the conclusion.

Intuitively:

An argument will strike us as valid iff a rational agent who satisfies the premises would also satisfy the conclusion.

TAKEAWAYS

1. Judgments about imperative inference reflect our sensitivity to rational requirements.

2. This can be captured in a rigorous formal semantics whose models represent structurally rational agents.

3. This account links clause types to communicative acts, and understands communicative acts in terms of intended effects.

BUT WHY INTENTIONS, SPECIFICALLY?

Why not desires, or preferences, for example?
(Portner 2004; Condoravdi & Lauer 2012; Starr 2020)

BUT WHY INTENTIONS, SPECIFICALLY?

Why not desires, or preferences, for example?
(Portner 2004; Condoravdi & Lauer 2012; Starr 2020)

Answer: Preferences and desires aren't governed by the right rational requirements.

For example, it can be rational to desire or prefer things over which we lack control.

Don't have nightmares tonight!

BUT WHY INTENTIONS, SPECIFICALLY?

Why not say that the difference between assertions and directives is a matter of undertaking different kinds of commitment? (Geurts 2019)

BUT WHY INTENTIONS, SPECIFICALLY?

Why not say that the difference between assertions and directives is a matter of undertaking different kinds of commitment? (Geurts 2019)

Answer: I have argued this view has problems making sense of communication, and needs some unexplained explainers to distinguish the two kinds of commitments.

See my reply to Geurts: "Intention and commitment in speech acts," *Theoretical Linguistics*, 2019

WHAT ABOUT CONTEXT CHANGE?

Shouldn't I have said something about how assertions and directives update the context, rather than just the mind of the addressee?

WHAT ABOUT CONTEXT CHANGE?

Shouldn't I have said something about how assertions and directives update the context, rather than just the mind of the addressee?

No! See two of my papers:

"We Talk to People, Not Contexts,"
Philosophical Studies, 2020

"A Puzzle about Context and Communicative Acts," *Protosociology*, 2017

THANKS