Implicit assertion and drawing conclusions

David Ripley (they/them)

https://davewripley.rocks

1. Positions

1.1 Linguistic meaning comes from social norms

The approach I take to linguistic meaning
sees it as coming from **social norms** on **language use**.

1.1 Linguistic meaning comes from social norms

This has a range of nice features as a way to think about meaning:

- it handles changes in meaning over time smoothly
  (meanings change as norms change)
- it does not commit us to the possibility of analysis
  (just try spelling out most social norms in full)
- it can integrate with broader theories of social norms

1.2 What kinds of norms matter?

The particular norms I focus on here are **coherence** norms
on **collections**
of **assertions** and **denials**.

1.2 What kinds of norms matter?

Assertions and **denials** play an important role:
these are **informative** speech acts,
acts that say how things are or aren't

You might see an echo here (or a premonition)
of **truth-and-falsity-conditional** semantics;
assertion and denial underpin that, rather than replacing

This approach is **bilateralist**: not just assertion,
but assertion and denial both

1.2 What kinds of norms matter?

Two main candidates for bilateralist norms:

- are **individual** acts **warranted**?
- are **collections** of acts **coherent**?

I've argued for focusing on the latter in previous work;
here I just do that

The kind of coherence in question is **not**
anything to do with mutual support or relevance.

Closer to: are we going to let someone get away with taking up this collection?

1.3 Coherence

A asserts *This is a raspberry* and *The moon is cool* and denies *Melbourne is small.*

A is perhaps disorganised (if that's all they said), but nothing incoherent here.

B asserts *2 + 2 is 4* and denies $e^{i\pi} = -1$.

B is wrong, but again, nothing incoherent here.

C asserts *Melbourne is big* and *London is bigger than Melbourne* but denies *London is big*.

Wait just a minute: that doesn't fit together! This is incoherence.

Coherence norms are enforced in a range of ways:

- simple refusal to uptake (eg *You're just talking crap now*)
- attempt to reinterpret (eg *Do you mean "big" in two different senses?*)
- pushing a choice (eg *Well, which is it?*)

These shade into each other, but all mark a **refusal to take at face value**;
a speaker is not just allowed to take up an incoherent position

1.4 Positions

The key formal notion to work with:
$\langle \Gamma, \Delta \rangle$ is a pair of sets Γ, Δ of sentences,
where Γ is the sentences asserted and Δ the sets denied

Given a language, we get a space of positions,
and then we give meaning to the language
by choosing which positions count as incoherent

This is a((n over)simple!) formal model of a coherence bilateralism

1.4 Positions

Note that a position, in this sense, consists just of sentences;
there is no speaker in view

But we can say a speaker **adopts** a position $\langle \Gamma, \Delta \rangle$ in a conversation
when they assert exactly the things in Γ and deny exactly the things in Δ

This is handy for thinking about norms,
since the norms are in the first place norms on speakers

2. From positions to consequence

I'll write $\Gamma \vdash \Delta$ to mean that the position $\langle \Gamma, \Delta \rangle$ is incoherent

2.1 Coherence consequence

For any Γ, Δ, A, we can expect $\Gamma, A \vdash A, \Delta$

That is to say, no matter what else you assert (Γ) or deny (Δ),
if you both assert and deny some A, then you've adopted an incoherent position

Of course that can be questioned, like anything can!
But it starts to give a flavour, maybe

2.1 Coherence consequence

Perhaps we can also expect “dilution”:
if $\Gamma \vdash \Delta$, then $\Gamma, \Sigma \vdash \Delta, \Theta$

This says: no incoherent position can be rendered coherent
just by adding more assertions and denials to it

This is more contentious:
what about asserting *this is a chair* and denying *this can be sat on*?

Also contentious is a "no double binds" principle:
if $\Gamma \vdash \Delta, A$ and $A, \Gamma \vdash \Delta$,
then $\Gamma \vdash \Delta$

According to this principle, if $\langle \Gamma, \Delta \rangle$ is coherent,
then at least one of $\langle \Gamma \cup \{A\}, \Delta \rangle$ or $\langle \Gamma, \{A\} \cup \Delta \rangle$ is coherent

That is, for any claim A, any coherent position can be coherently extended
with **some** informative act on A

These three constraints:

- always $\Gamma, A \vdash A, \Delta$
- if $\Gamma \vdash \Delta$, then $\Gamma, \Sigma \vdash \Delta, \Theta$
- if $\Gamma \vdash \Delta, A$ and $A, \Gamma \vdash \Delta$, then $\Gamma \vdash \Delta$

are familiar in thinking about $\vdash$ as a kind of **consequence**

2.2 Classical logic

Going forward, I'll take our language to be propositional logic.

It's the fruit fly of languages, a model organism:
familiar, simple, and well-understood

We can give meanings to connectives like negation $\neg$ and conjunction $\wedge$ in terms of how they interact with coherence norms:

- $\Gamma, \neg A \vdash \Delta$ iff $\Gamma \vdash A, \Delta$
- $\Gamma \vdash \neg A, \Delta$ iff $\Gamma, A \vdash \Delta$
- $\Gamma, A \wedge B \vdash \Delta$ iff $\Gamma, A, B \vdash \Delta$
- $\Gamma \vdash A \wedge B, \Delta$ iff ($\Gamma \vdash A, \Delta$ and $\Gamma \vdash B, \Delta$)

These conditions are plausible (although certainly not mandatory) on the intended interpretation of $\vdash$ as marking incoherence of positions

They also give us (together with $\Gamma, A \vdash A, \Delta$) classical logic in this sense: whenever the argument from Γ to Δ is classically valid, then $\Gamma \vdash \Delta$

This gives us a picture of how classical logic
can relate to conversational norms

It derives classical logic from a theory of the meanings of the connectives,
framed in terms of coherent positions

3. Prohibition and permission

3.1 An objection

That much (so I will assume) is all well and good.

There is, however, an objection to this way of thinking about consequence

Steinberger (2011):

“[This approach] does not adequately convey even rather basic features of the consequence relation. Take the example of the classical theoremhood of the law of excluded middle. On [this approach]: $A \vee \neg A$ would have to be rendered as ‘It is inocherent to deny $\ulcorner A \vee \neg A \urcorner$’. But surely this is not what is intended; even the intuitionist can happily agree that it is incoherent to deny (every instance of) $\ulcorner A \vee \neg A \urcorner$. What the advocate of [this approach] owes us is a way of expressing that $\ulcorner A \vee \neg A \urcorner$ can always be correctly asserted, which is what the classical logician is after.”

Now, I make no claim to be a classical logician,
so I don't much care what "the classical logician is after".

But I think Steinberger (although perhaps overly hostile) is onto something here:
we might think that some sentences are always correctly assertible,
and that this can be a matter of their meaning.

So far, nothing like this has a place in the view I've put forward,
which is purely prohibitive, rather than permissive

Sticking to the letter of the objection,
it lands:

At least if we assume $\Gamma, A \vdash A, \Delta$,
there can't be any sentence that's always coherently assertible,
in the sense that every position containing its assertion is coherent

The spirit of the objection runs deeper, though:

Certain kinds of argumentation, done well,
don’t just bar us from denying their conclusions;
they seem to grant us permission to assert them!

But the permission to assert the conclusions of good arguments
is not **come what may**;

eg if you've already denied the conclusion,
you don't get permission to add an assertion of it

The problem, then, is to figure out how this works

3.2 Implicit assertion to the rescue?

The key move to make in response:
positions can **implicitly** assert (or deny) claims,
and this can be revealed in argument

Such arguments don't **grant permission** to assert;
they show that those who have adopted certain positions
may as well assert; they already implicitly have done

3.2 Implicit assertion to the rescue?

This works, I think, but it needs a story about implicit assertion and denial

Here's one:

a position $\langle \Gamma, \Delta \rangle$ implicitly asserts A when:

for any Σ, Θ,

$\Gamma, \Sigma \vdash \Delta, \Theta$ iff $\Gamma, \Sigma, A \vdash \Delta, \Theta$

That is, when adding an explicit assertion of A would make no difference to which ways of going on count as coherent

3.2 Implicit assertion to the rescue?

When a position implicitly asserts a claim,
someone who has adopted the position can go on to assert that claim
without **additional** risk of incoherence

It’s not that the assertion must be ok;
it’s that any problems it leads to were there already

3.3 Examples of implicit assertion

Given the earlier stories about assertion and denial conditions for $\wedge$, $\neg$, and given dilution, we can show:

- Any position that asserts A implicitly denies $\neg A$, and vice versa
- Any position that denies A implicitly asserts $\neg A$, and vice versa

- Any position that asserts A and B implicitly asserts $A \wedge B$
- Any position that asserts $A \wedge B$ implicitly asserts A and B

3.3 Examples of implicit assertion

We **cannot** yet say that every position implicitly asserts $A \lor \neg A$

This turns out to follow if we impose the "no double binds" condition, but not without it

We have here a way of thinking about how classical logic relates
to conversational norms, where every classical validity has some force,
but it is **not** true that every classical theorem is assertible for free

4. Drawing conclusions

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- On this story, when an argument is classically valid,
  it's incoherent to assert its premises while denying its conclusions
- We might also want a story about when we **can** go on in certain ways,
  not just when it would be incoherent to do so
- This take on implicit assertion gives one way to do so,
  and the result is not classical!
- One lesson: don't expect one logic to do everything