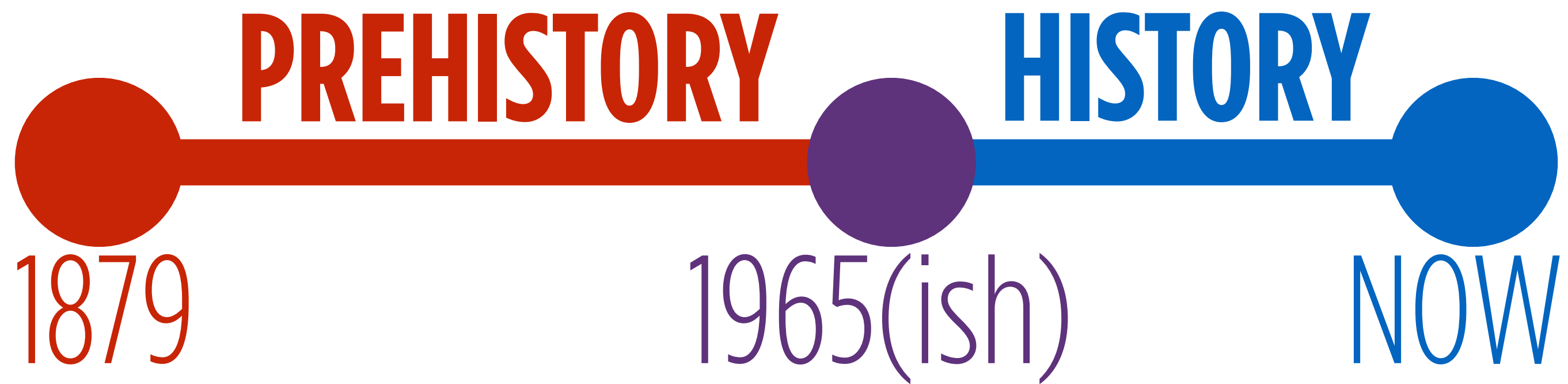


**PREHISTORY
OF
NATURAL
LANGUAGE
SEMANTICS**

**THE
HISTORY**

**DANIEL
HARRIS**



1. Truth-Conditional Semantics and the Communicative Turn



NATURAL-LANGUAGE SEMANTICS

The empirical investigation of how word meanings add up to sentence meanings in natural languages.

LEWIS'S QUESTION

"In order to say what a meaning is, we may first ask what a meaning does, and then find something that does that."

DAVID LEWIS, 1970



LEWIS'S QUESTION

What is the
explanatory role of
linguistic meaning?



LEWIS'S ANSWER

"A meaning for a sentence is something that determines the conditions under which the sentence is true or false."

DAVID LEWIS, 1970



TRUTH-CONDITIONAL SEMANTICS

The sole or primary semantic property of a sentence to be its truth condition or a relation it bears to an entity with a truth condition.

TRUTH-CONDITIONAL SEMANTICS



THE COMMUNICATIVE TURN

A sentence's meaning is not its truth-condition but its communicative potential.

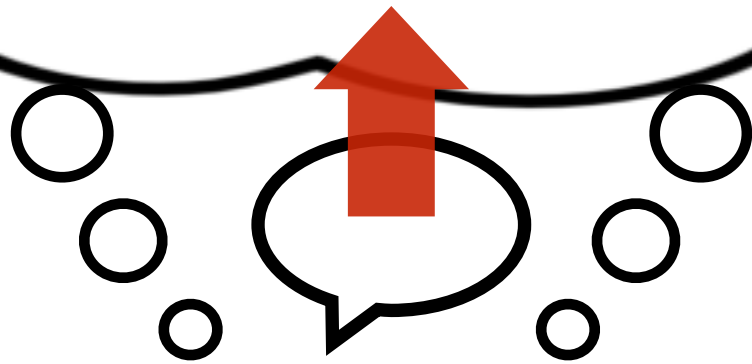
THE COMMUNICATIVE TURN

- Non-declarative clauses
- Expressive Meaning
- Presupposition
- Conventional Implicature
- Context sensitivity

context



context



1. NON-DECLARATIVE CLAUSES

INTERROGATIVE

'Did Frege discover any important dance steps?'

IMPERATIVE

'Give my dog a bath!'

1. NON-DECLARATIVE CLAUSES

INTERROGATIVE

'Did Frege discover any important dance steps?'
...is true iff ???

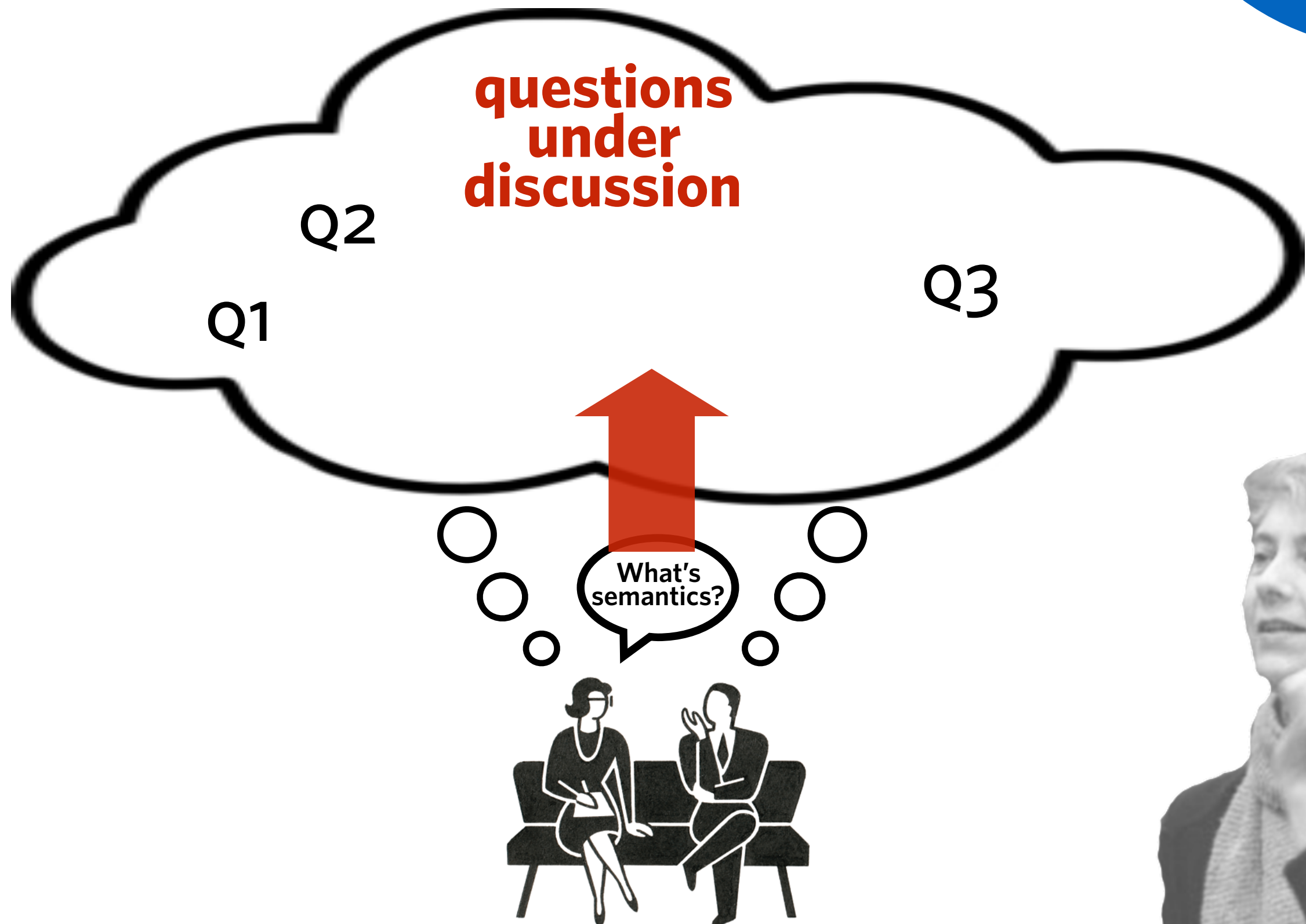
IMPERATIVE

'Give my dog a bath!' **...is true iff ???**

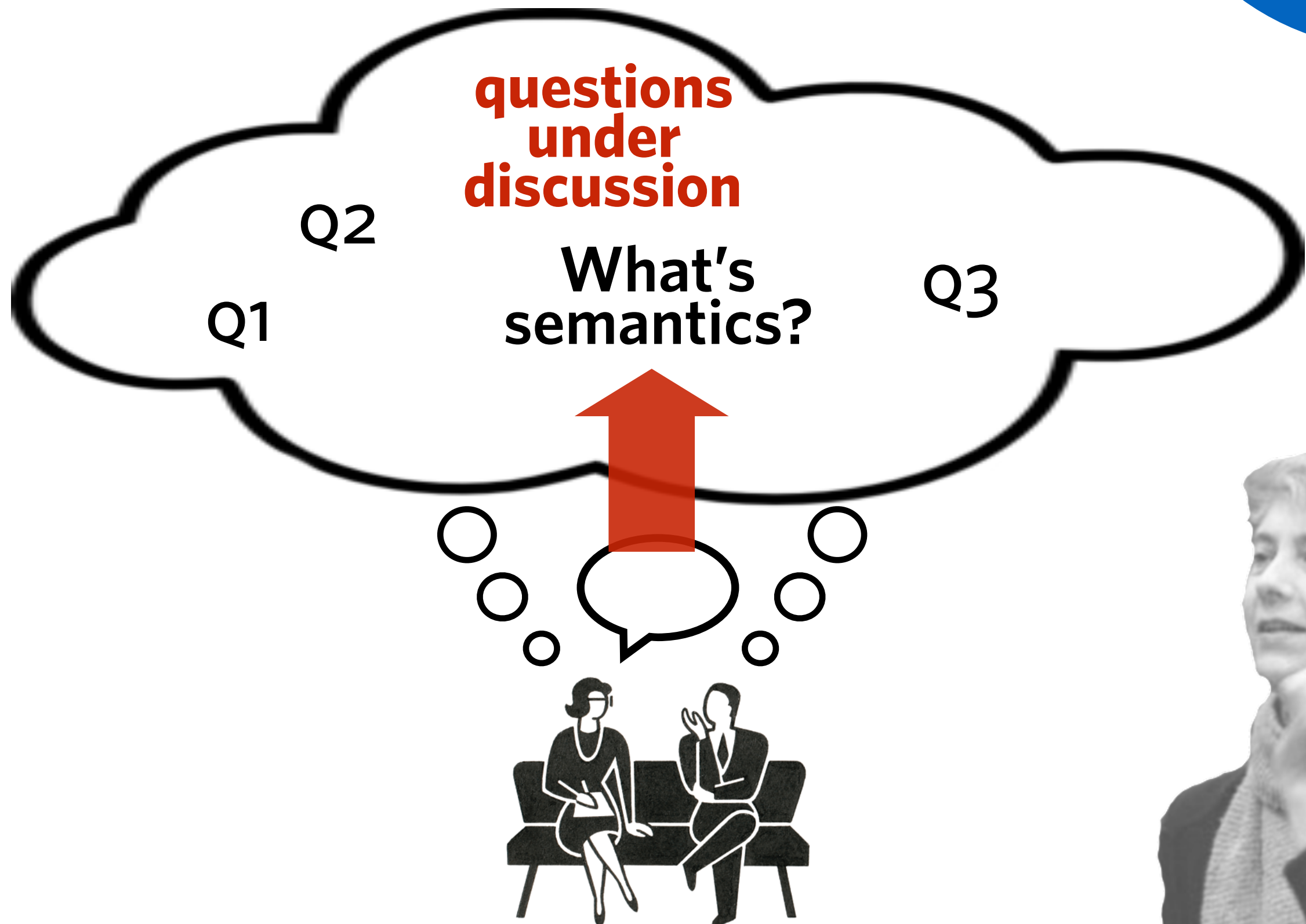
1. NON-DECLARATIVE CLAUSES



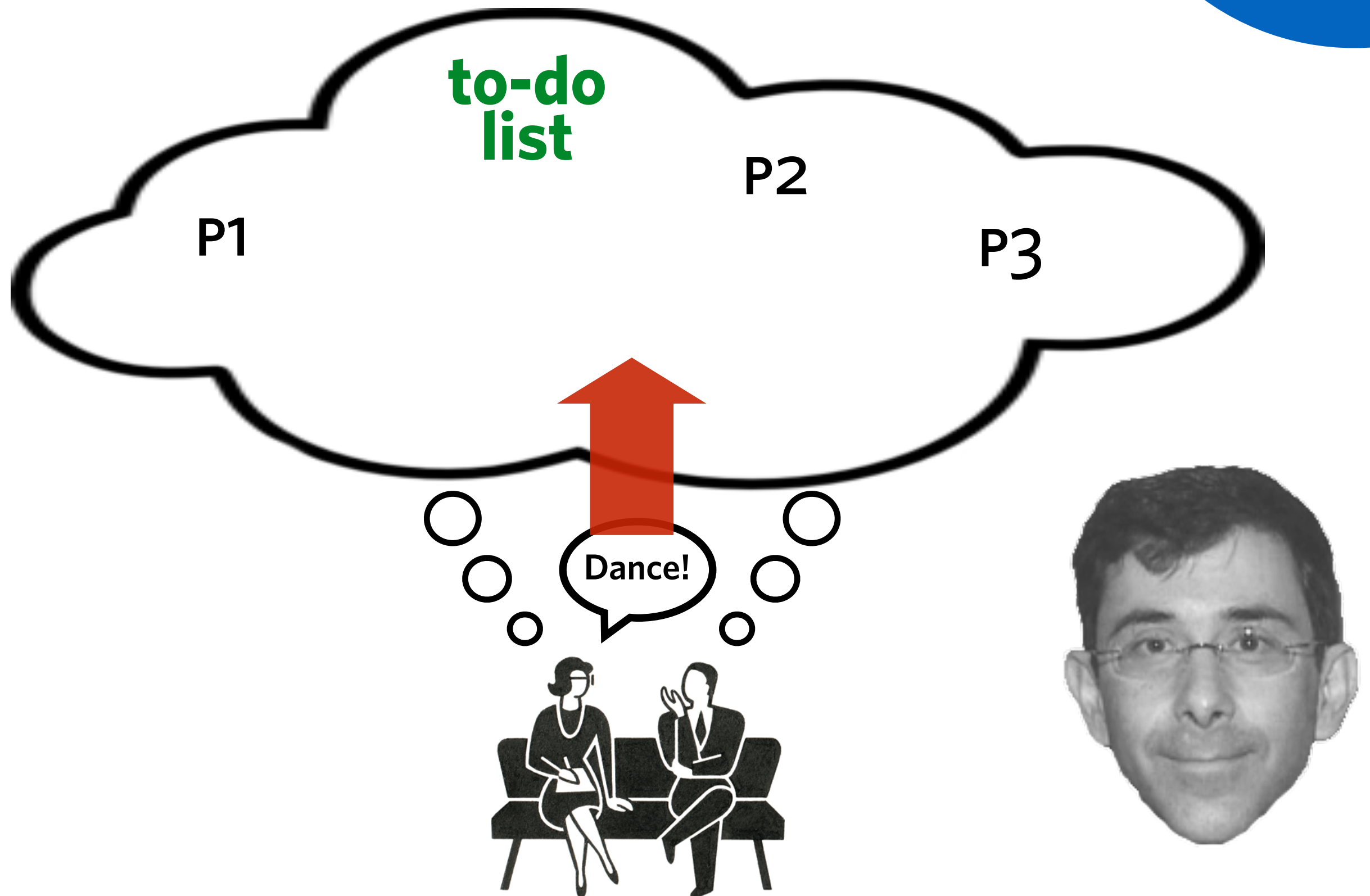
1. NON-DECLARATIVE CLAUSES



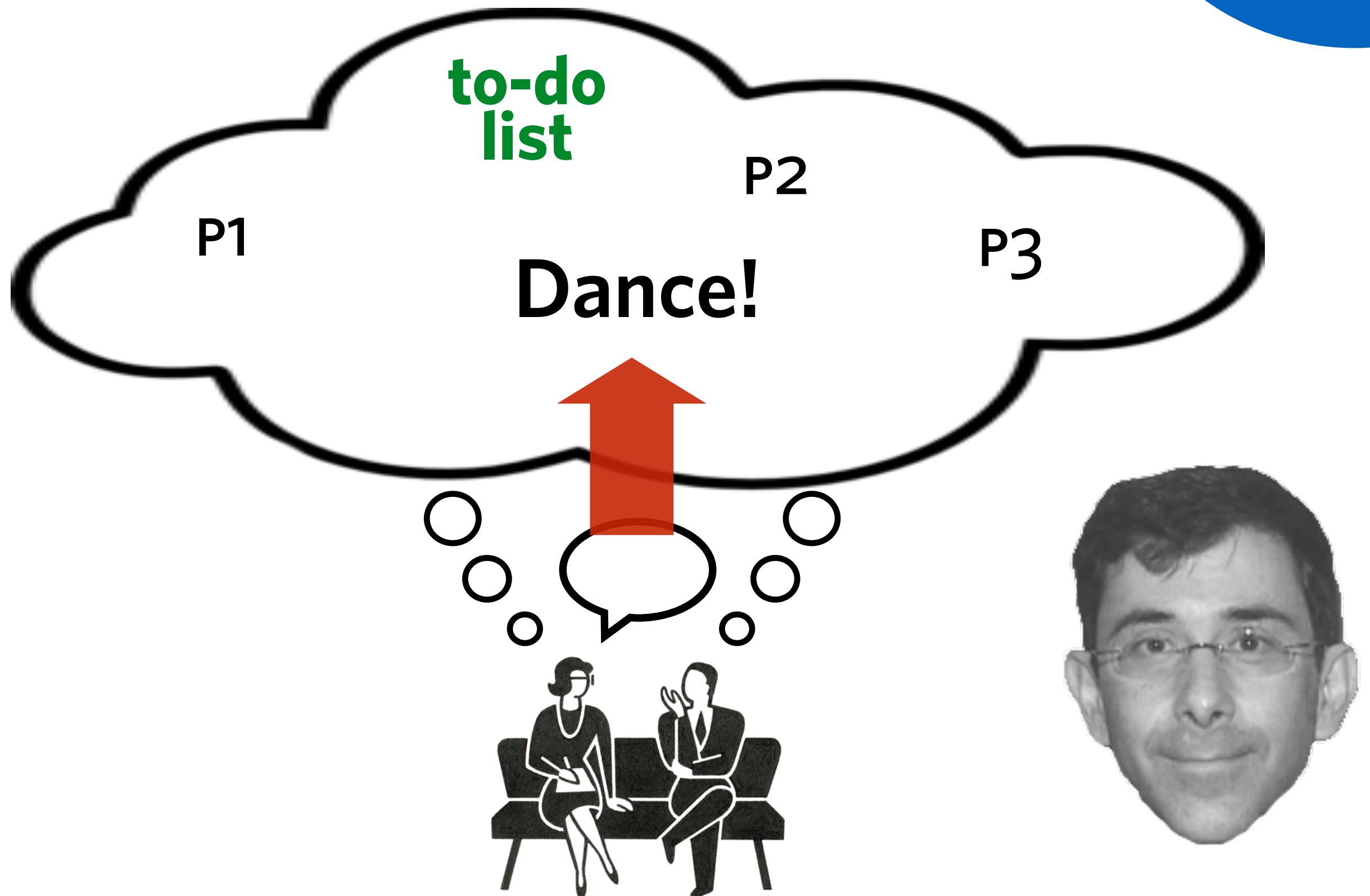
1. NON-DECLARATIVE CLAUSES



1. NON-DECLARATIVE CLAUSES



1. NON-DECLARATIVE CLAUSES



2. EXPRESSIVE MEANING

'Mookie does the **right** thing.'

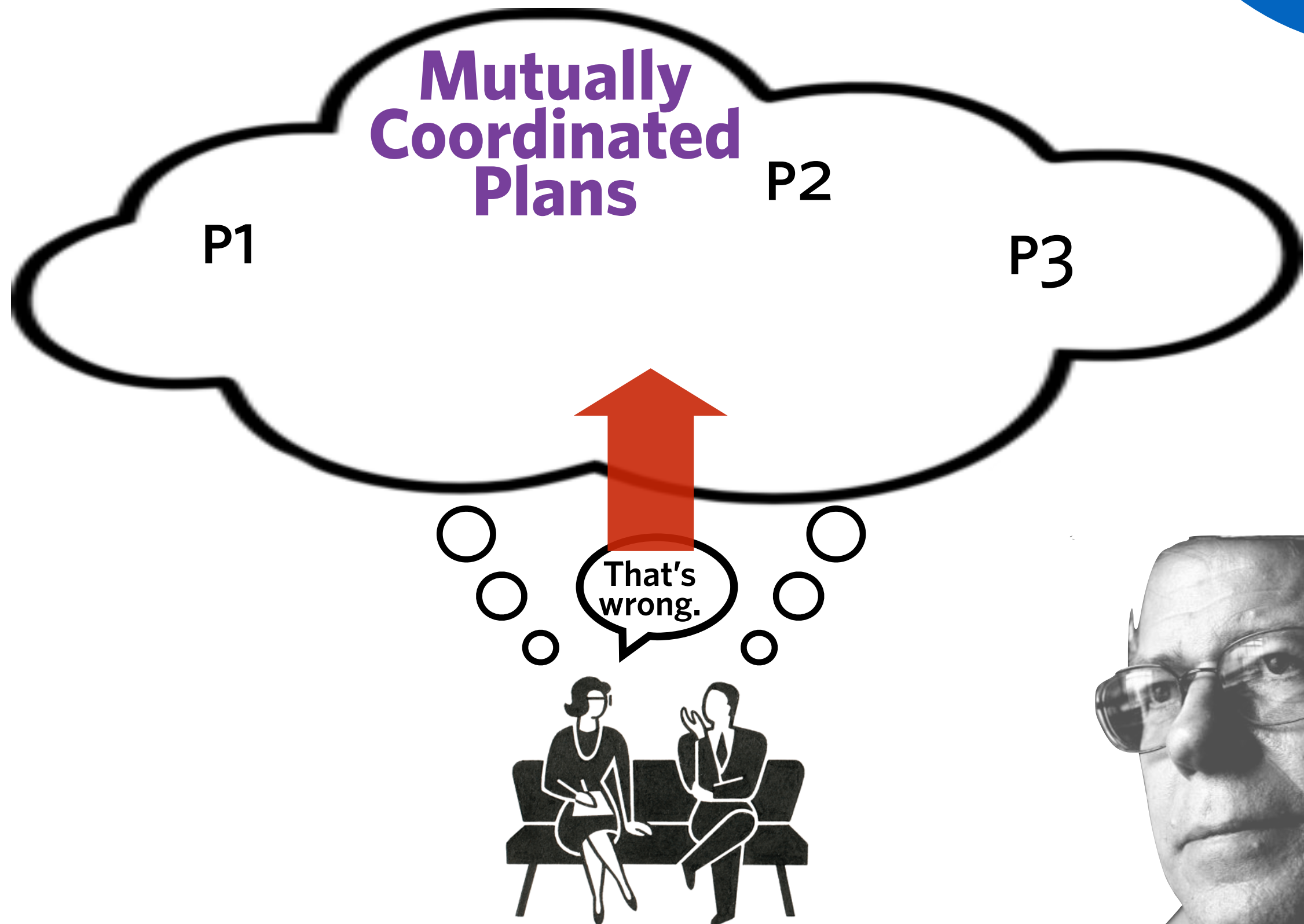
'We **ought** to get Sandra a sash.'

'It **might** snow again tonight.'

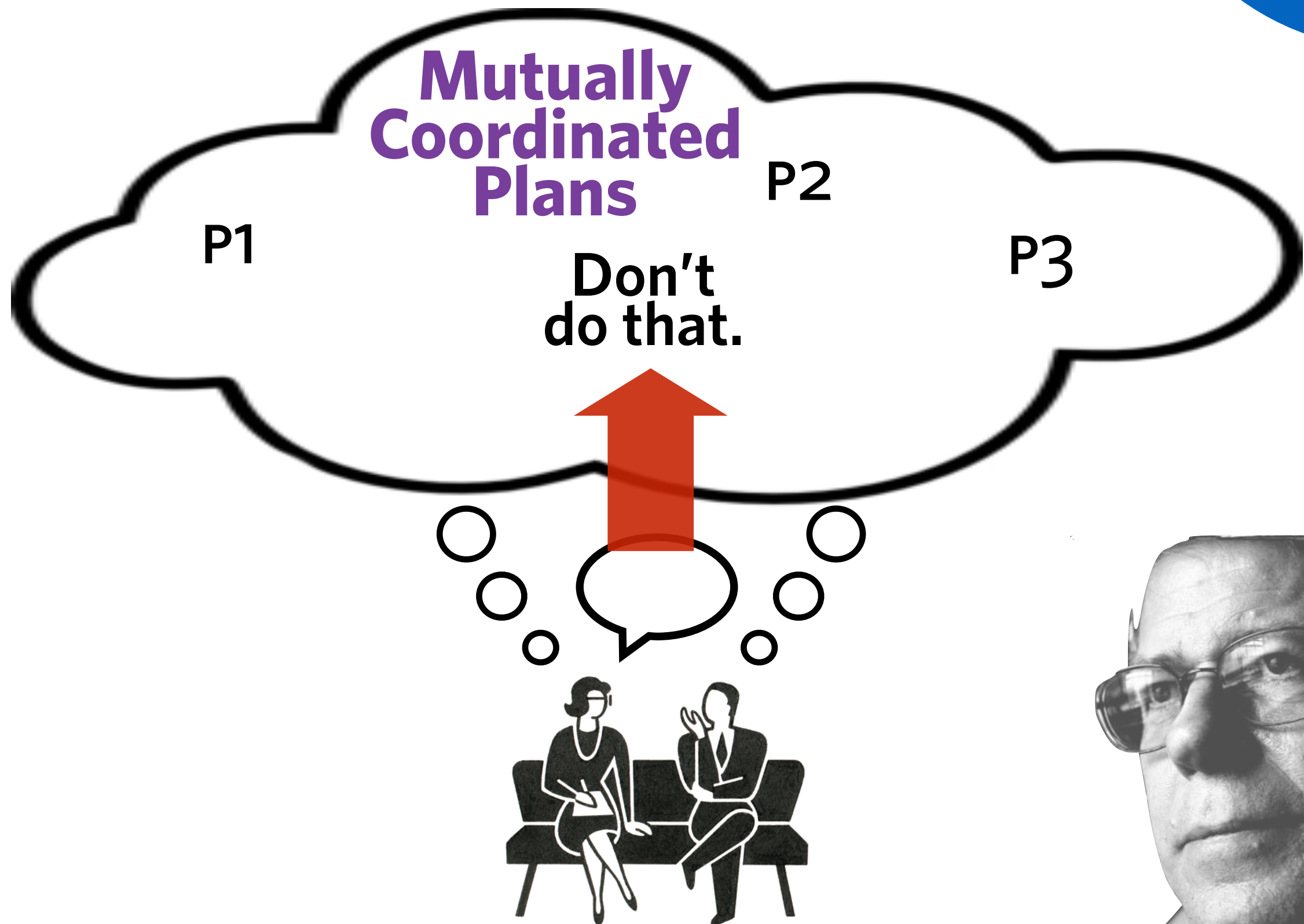
'**Please** pass the salt.'

'This is an abso-**fucking**-lutely great conference.'

2. EXPRESSIVE MEANING



2. EXPRESSIVE MEANING



3. PRESUPPOSITION

'**The dog** ate my homework.'

'**It was** Fido who ate my homework.'

'The cat ate some of my homework **too**.'

4. CONVENTIONAL IMPLICATURE

'Shaq is huge **but** agile.'

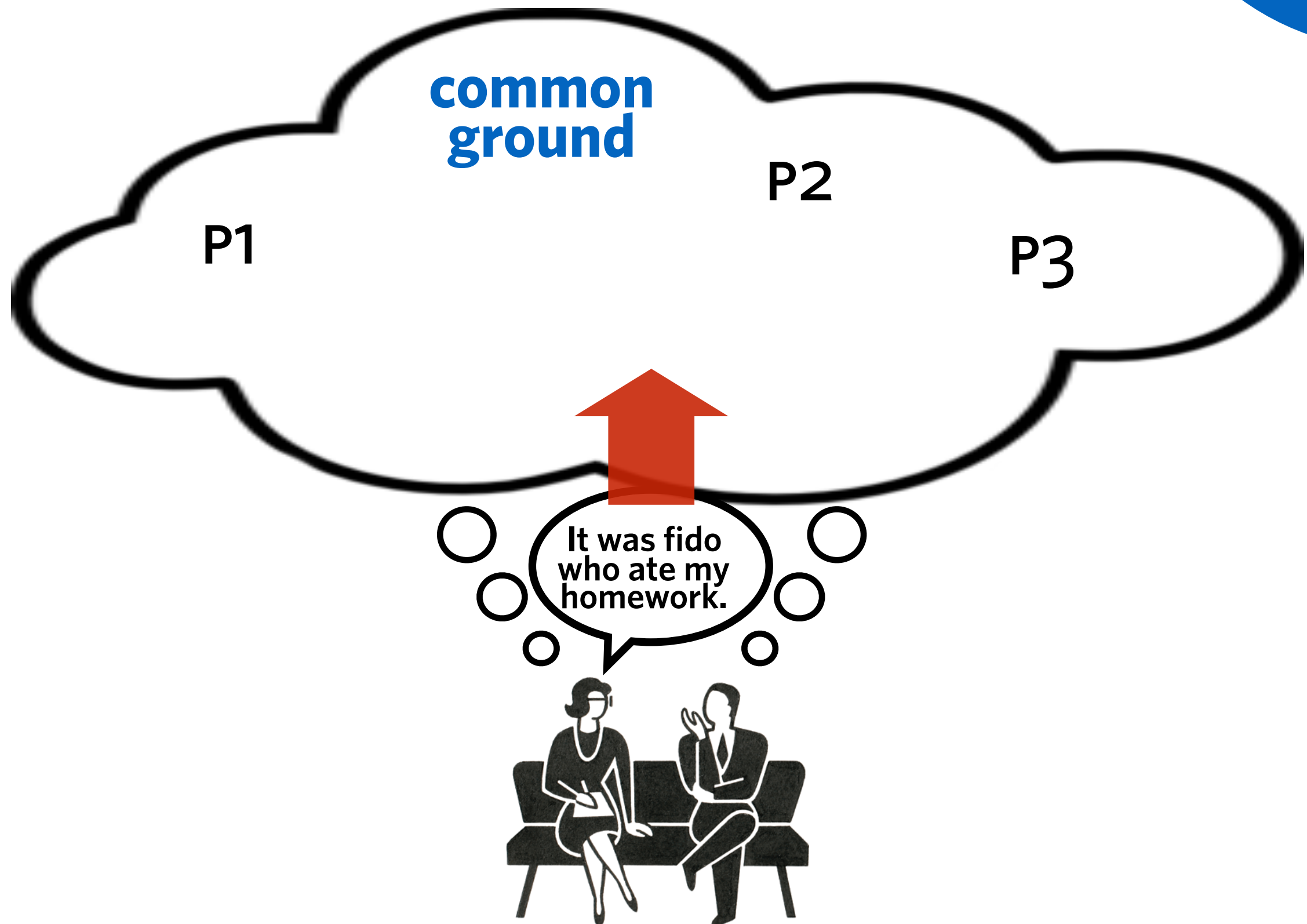
'Shaq, **who is huge and agile**, won some titles.'

3/4. NOT-AT-ISSUE MEANING

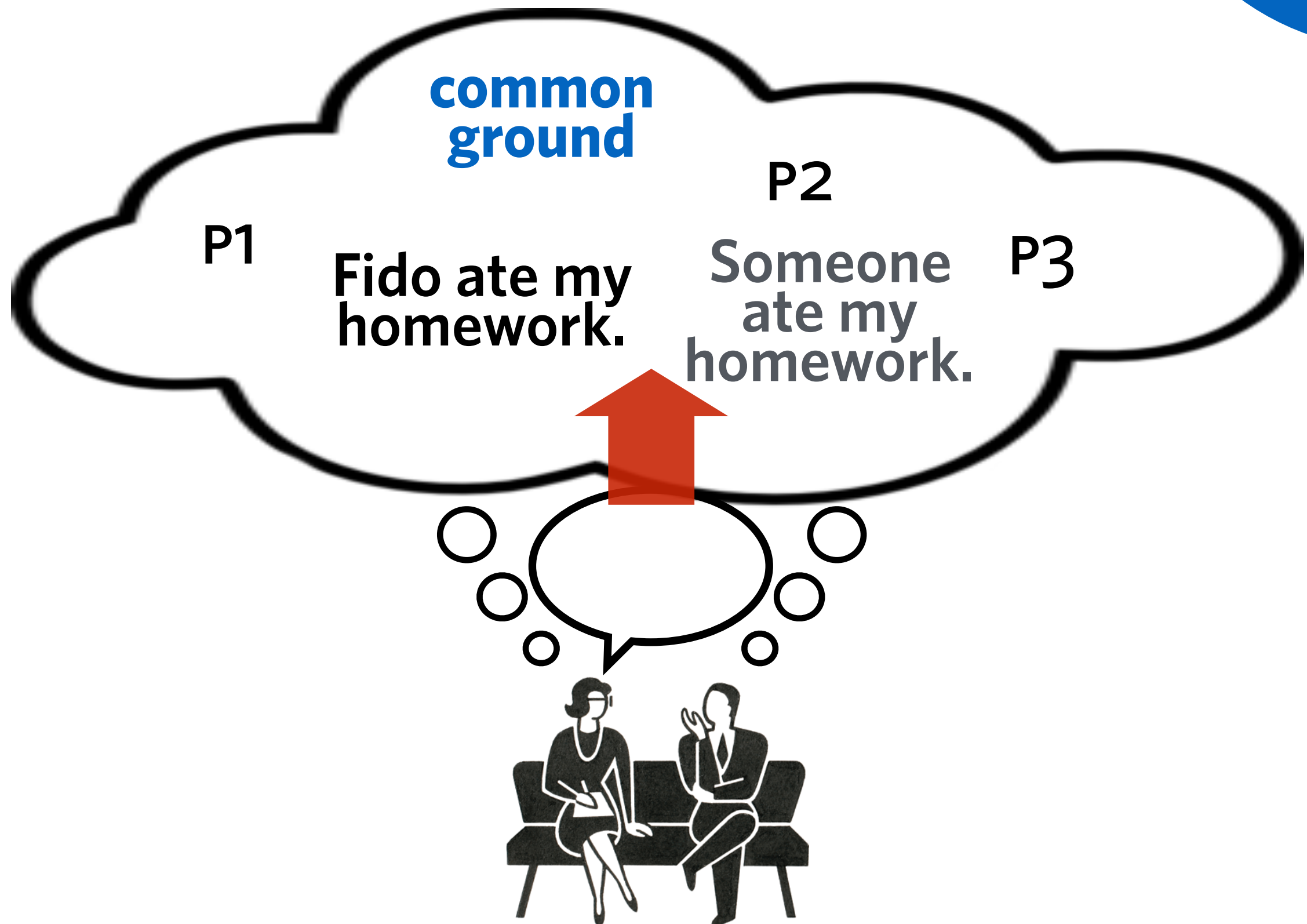
'The dog didn't eat my homework.'

'If I remember correctly, then Shaq, **who is huge and agile,** won some titles.'

3/4. NOT-AT-ISSUE MEANING



3/4. NOT-AT-ISSUE MEANING



5. CONTEXT SENSITIVITY

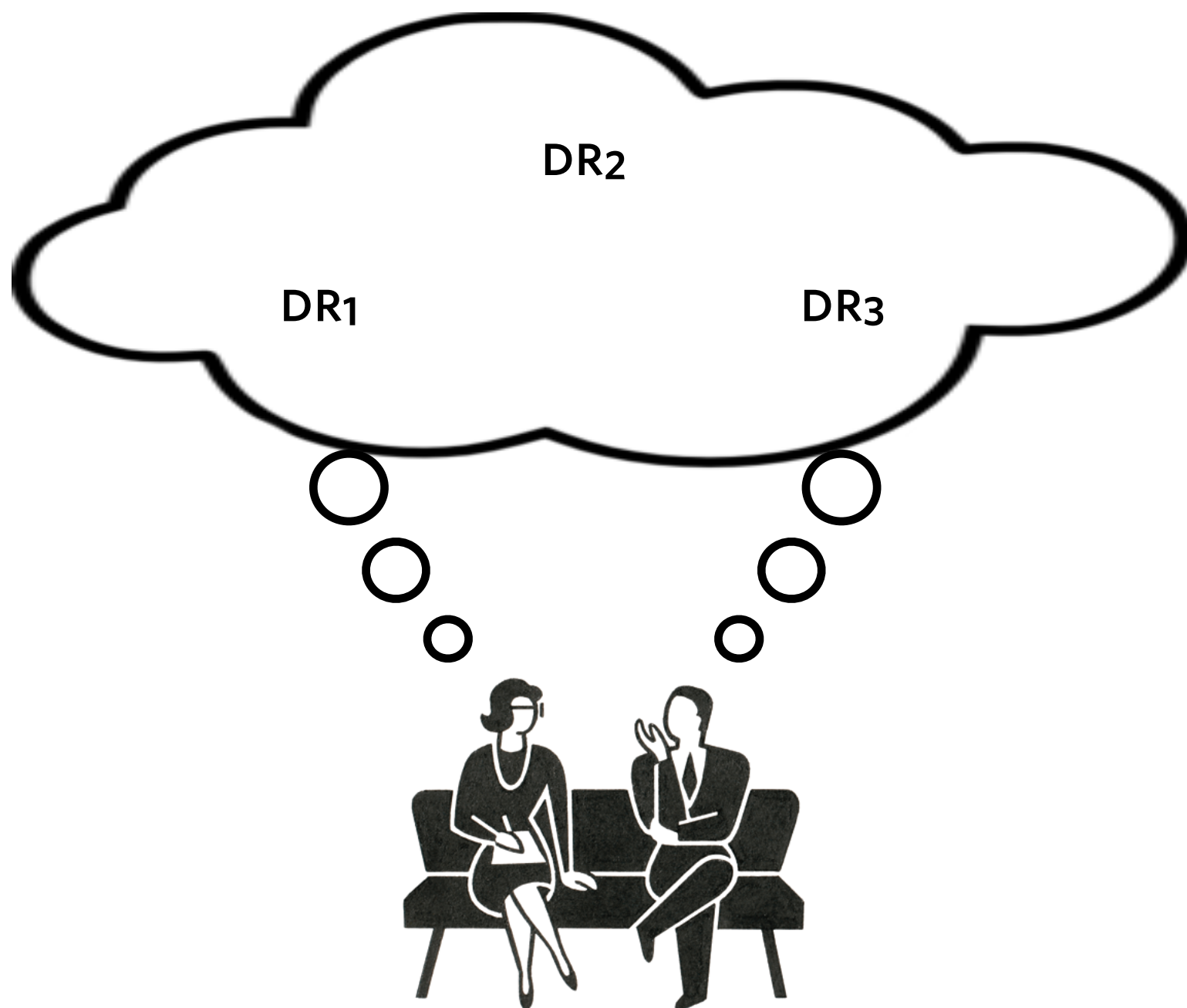
'I am here now.'

'That was a delicious meal.'

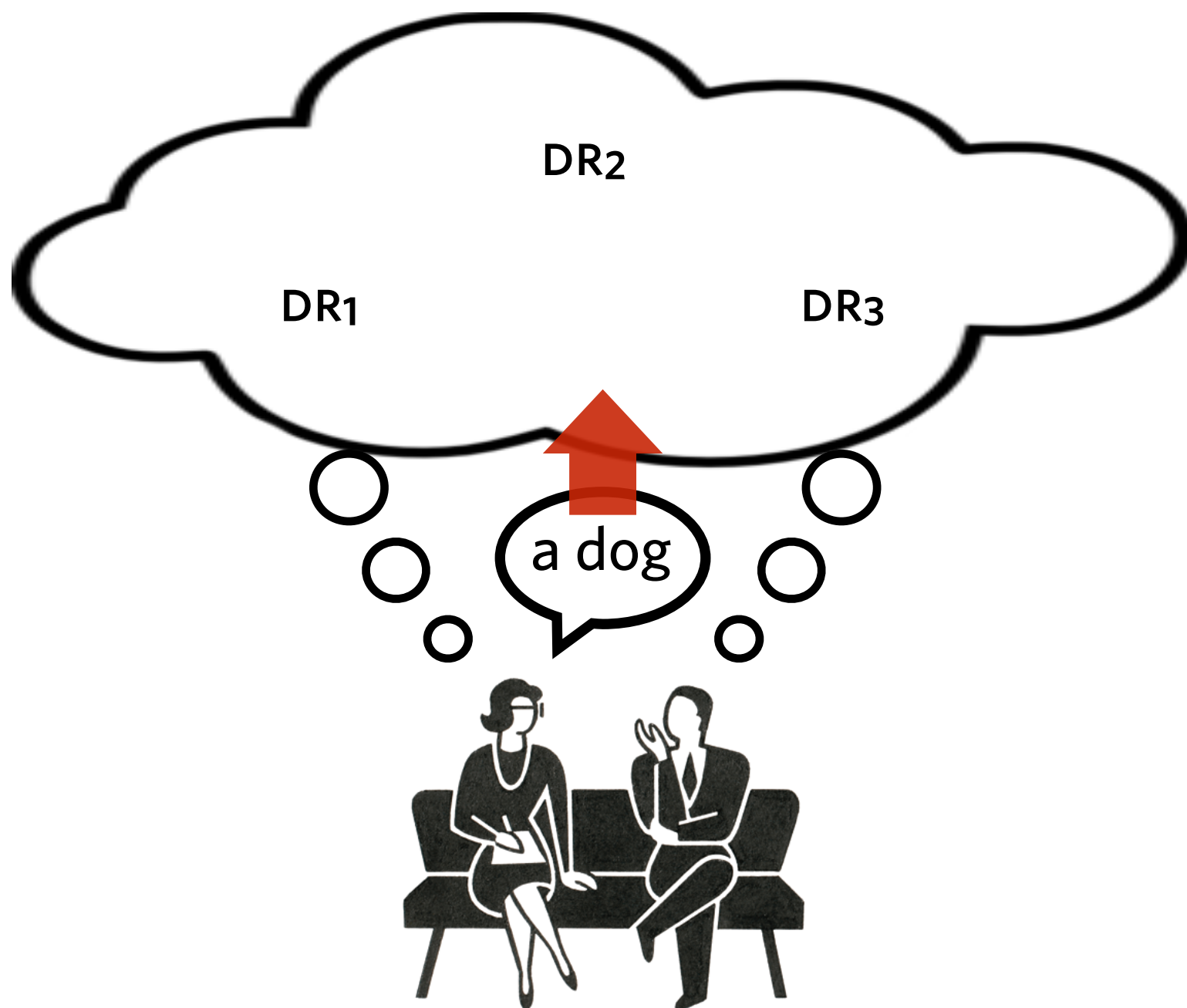
'A dog got into the garbage. **It** made a big mess'

'The dog was here again.'

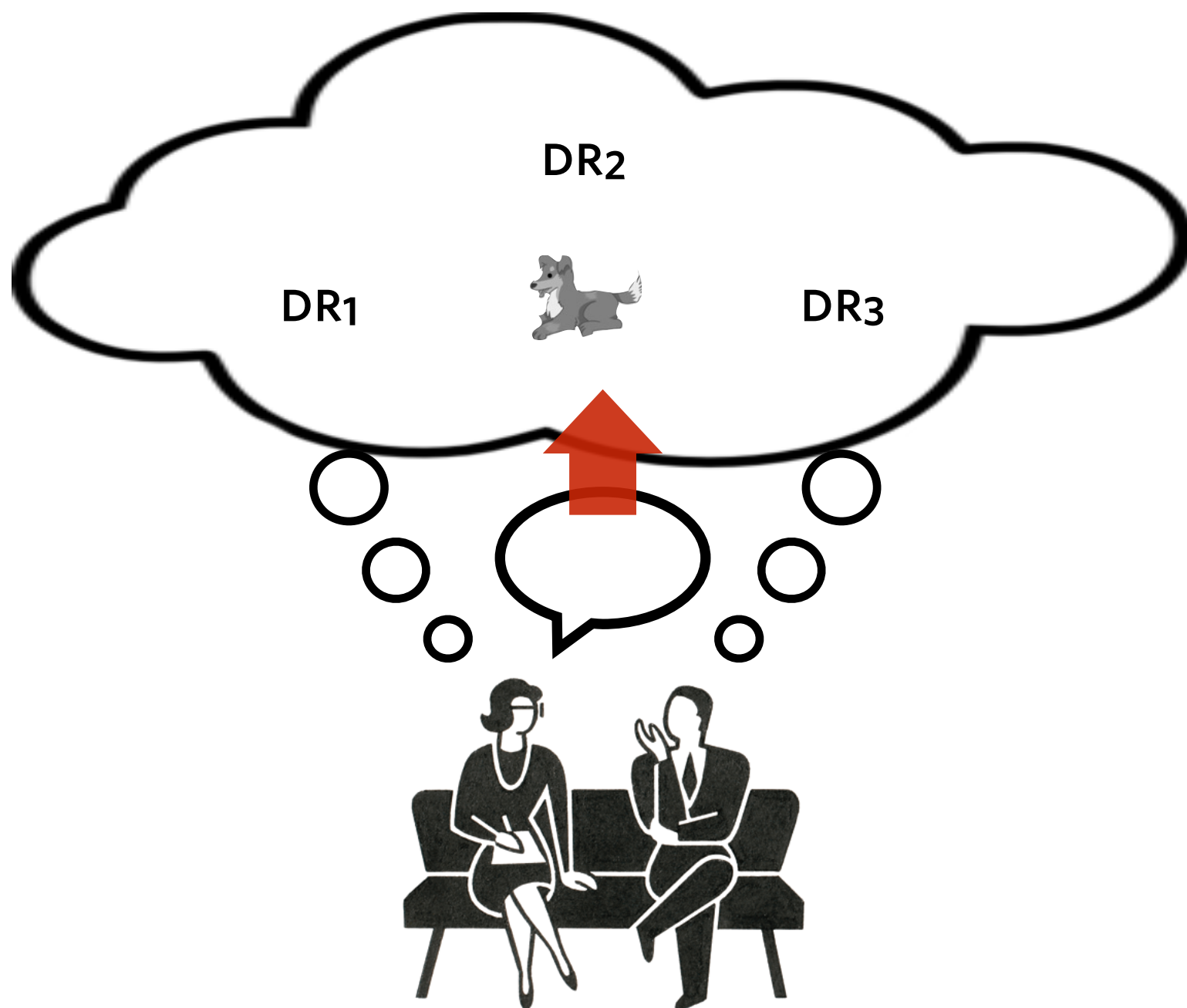
5. CONTEXT SENSITIVITY



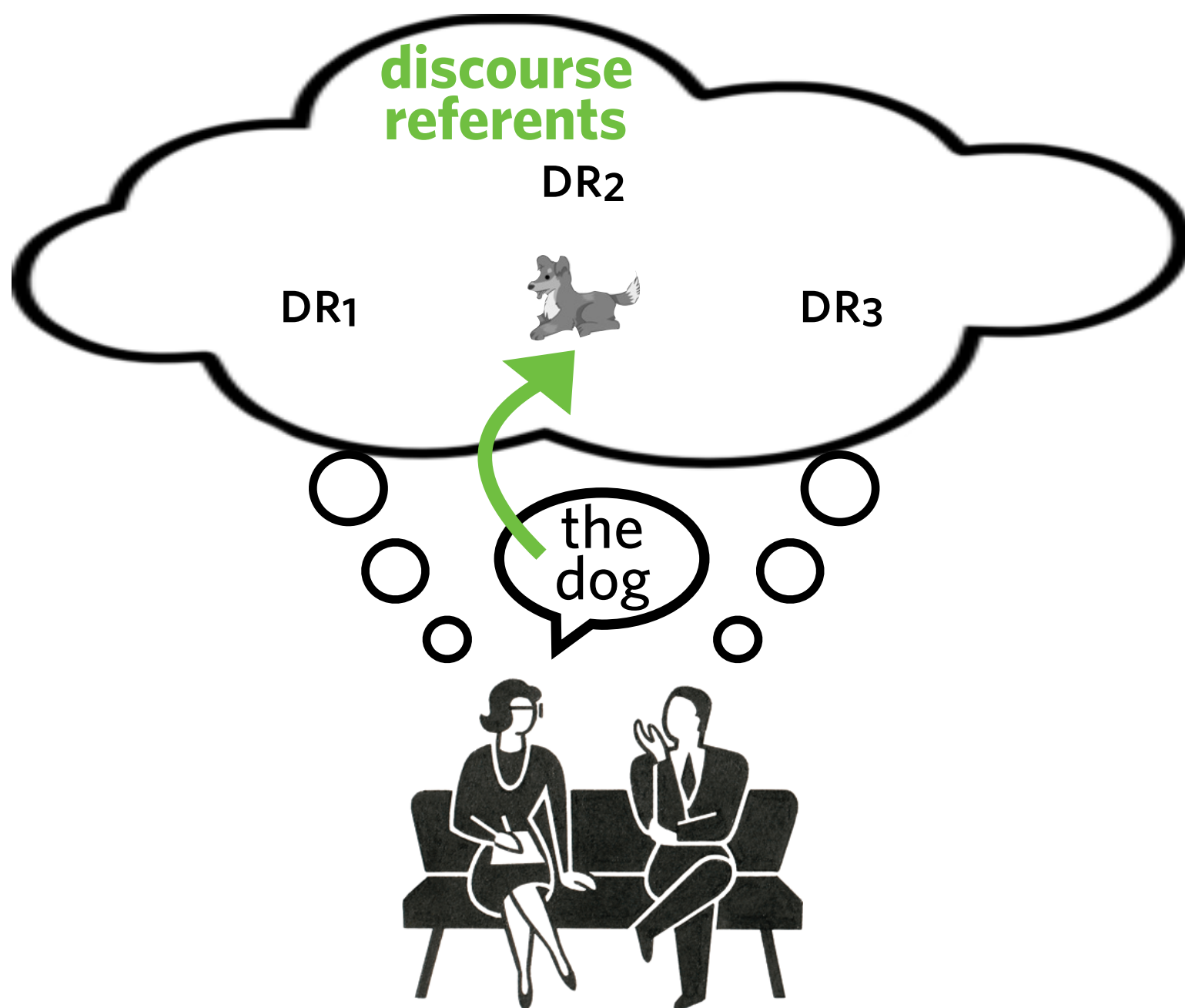
5. CONTEXT SENSITIVITY



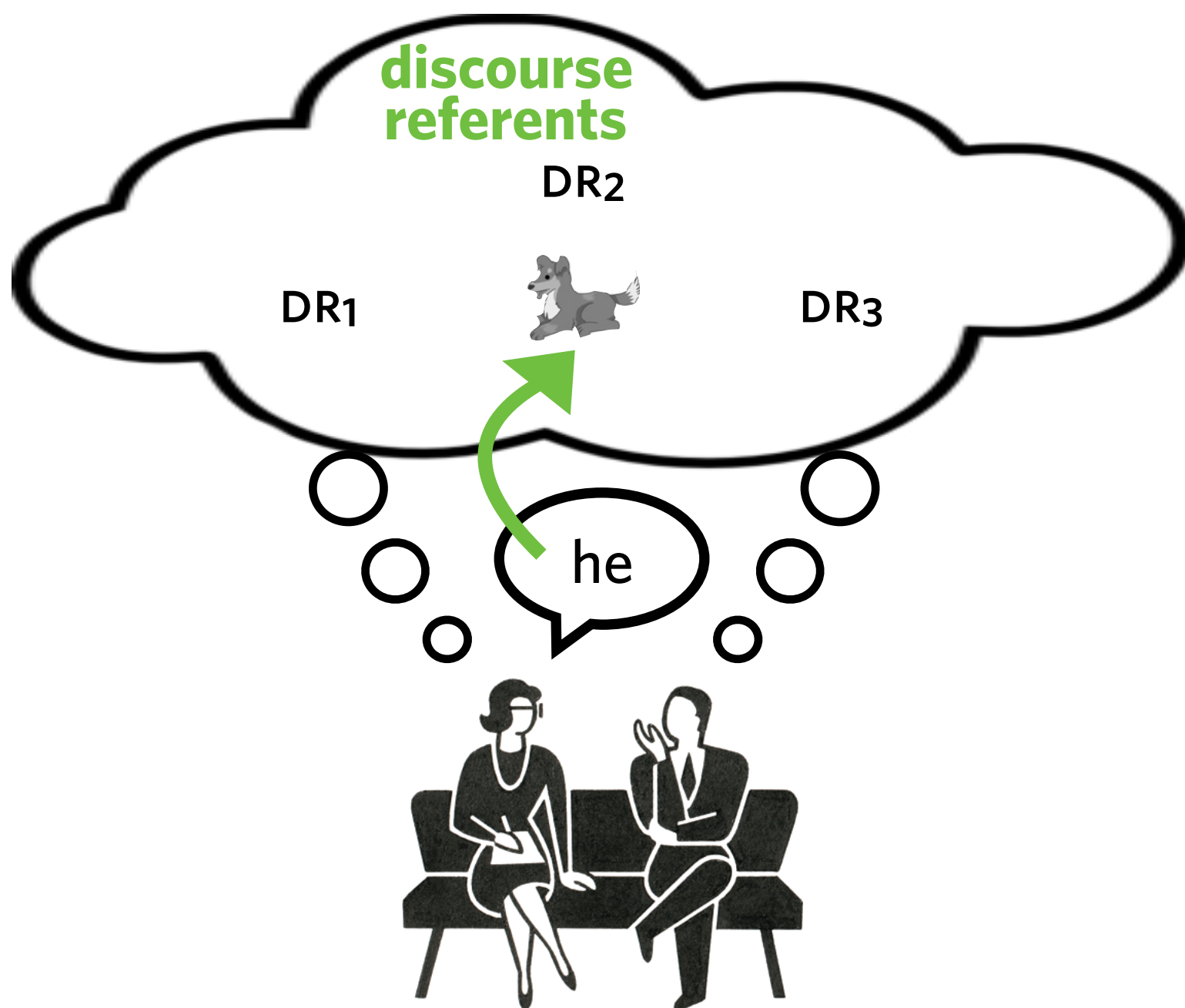
5. CONTEXT SENSITIVITY



5. CONTEXT SENSITIVITY



5. CONTEXT SENSITIVITY



THE COMMUNICATIVE TURN

A sentence's meaning is the raw material for a variety of conversational moves.

Classical semantics, in the style of e.g. Frege, Russell, Tarski or Montague, involves a static relationship between linguistic form and reality...

DAVID BEAVER, 2001



In dynamic semantics,
the form/reality
relationship is fluid,
mediated by an evolving
context of interpretation.

DAVID BEAVER, 2001



Thus meaning becomes a dynamic notion: the meaning of a sentence is an operation on information states.

FRANK VELTMAN, 1996



QUESTIONS

1. If the communicative turn is a good thing, why did we start with truth-conditional semantics?

QUESTIONS

2. Why did natural-language semanticists start out ignoring non-declaratives, expressives, presupposition, conventional implicature, and context-sensitivity?



A sentence's sense is
the thought that its
truth condition obtains.



Semantic composition
is functional
application.



Quantifiers are second-level predicates.



Here's how to give an
axiomatic truth definition
for a language.



Here's how to define
truth under an arbitrary
interpretation.



Variable-binding is
reduction of assignment-
dependency.



"Semantics" is a
respectable discipline
that works like this.



Here's how to do
semantics for intensional
languages.



2. The Alethic Idealization

An idealization present in any model of language that eliminates all phenomena which prevent a one-to-one correspondence of sentences and truth-conditions...

2. The Alethic Idealization

...such as:

- Non-declarative clauses
- Expressive Meaning
- Presupposition
- Conventional Implicature
- Context sensitivity

TWO CLAIMS

Frege, Tarski, and Carnap adopted the alethic idealization

...deliberately

...because an impoverished model of language and linguistic meaning suited their theoretical purposes.



NON-DECLARATIVES

A subordinate clause with 'that' after 'command', 'ask', 'forbid', would appear in direct speech as an imperative. Such a clause has no reference but only a sense. A command, a request, are indeed not thoughts, yet they stand on the same level as thoughts. Hence in subordinate clauses depending upon 'command', 'ask', etc., words have their indirect reference. The reference of such a clause is therefore not a truth value but a command, a request, and so forth.

Frege
ON SENSE AND REFERENCE (1891)



NON-DECLARATIVES

$$\vdash F(a)$$


NON-DECLARATIVES

JUDGMENT
STROKE

|

—

CONTENT
STROKE

SENTENCE
RADICAL

$F(a)$



NON-DECLARATIVES

The judgment stroke cannot be used to construct a functional expression; for it does not serve, in conjunction with other signs, to designate an object: " $\vdash 2+3 = 5$ " does not designate anything; it asserts something.

Frege
ON FUNCTION AND CONCEPT (1891)



PRESUPPOSITION

If anything is asserted
there is always an
obvious presupposition
that the simple or
compound proper names
used have a reference.

Frege
ÜBER SINN UND BEDEUTUNG (1892)



CONVENTIONAL IMPLICATURE

['Although'] actually has no sense and does not change the sense of the clause but only illuminates it in a peculiar fashion. [*fn*: Similarly in the case of 'but' and 'yet'.]

FREGE
ÜBER SINN UND BEDEUTUNG (1892)



EXPRESSIVE MEANING

'Cur' [*'Köter'*] has the same sense and reference as 'dog' but a different coloring (*'Färbung'*).

FREGE
INTRODUCTION TO LOGIC (1897)



CONTEXT-SENSITIVITY

If someone wants to say today what he expressed yesterday using the word 'today', he will replace this word with 'yesterday'. Although the thought is the same, the verbal expression must be different, to compensate for the change of sense which would otherwise be brought about by the different time of utterance.

Frege
THE THOUGHT (1918)



Frege's project is epistemological: he wants to trace the source of our justification of the truths of arithmetic, by proving them from the primitive truths on which they depend.

Joan Weiner

FREGE AND THE LINGUISTIC TURN (1997)



Language, for Frege, is the prime or only instrument for expressing language-independent thoughts. But the rules of language interest him only insofar as they illuminate the structure of such thoughts.

Tyler Burge

SINNING AGAINST FREGE (1979)



The use of a
logically perfect
language requires
no presuppositions.

Joan Weiner
HAS FREGE A PHILOSOPHY OF LANGUAGE? (2007)



Frege would perhaps have granted that meaning and sense are identical in a “perfect,” context-free language. But this would be because such a language would be perfectly fitted to express thought contents.

Tyler Burge

SINNING AGAINST FREGE (1979)



By 'sentence' we understand here what is usually meant in grammar by 'declarative sentence'...

For several reasons it appears most convenient to apply the term 'true' to sentences, and we shall follow this course.

Alfred Tarski

THE SEMANTIC CONCEPTION OF TRUTH (1944)



...the very possibility of a consistent use of the expression 'true sentence' which is in harmony with the laws of logic and the spirit of everyday language seems to be very questionable...

Alfred Tarski

THE CONCEPT OF TRUTH IN FORMALIZED LANGUAGES (1933)



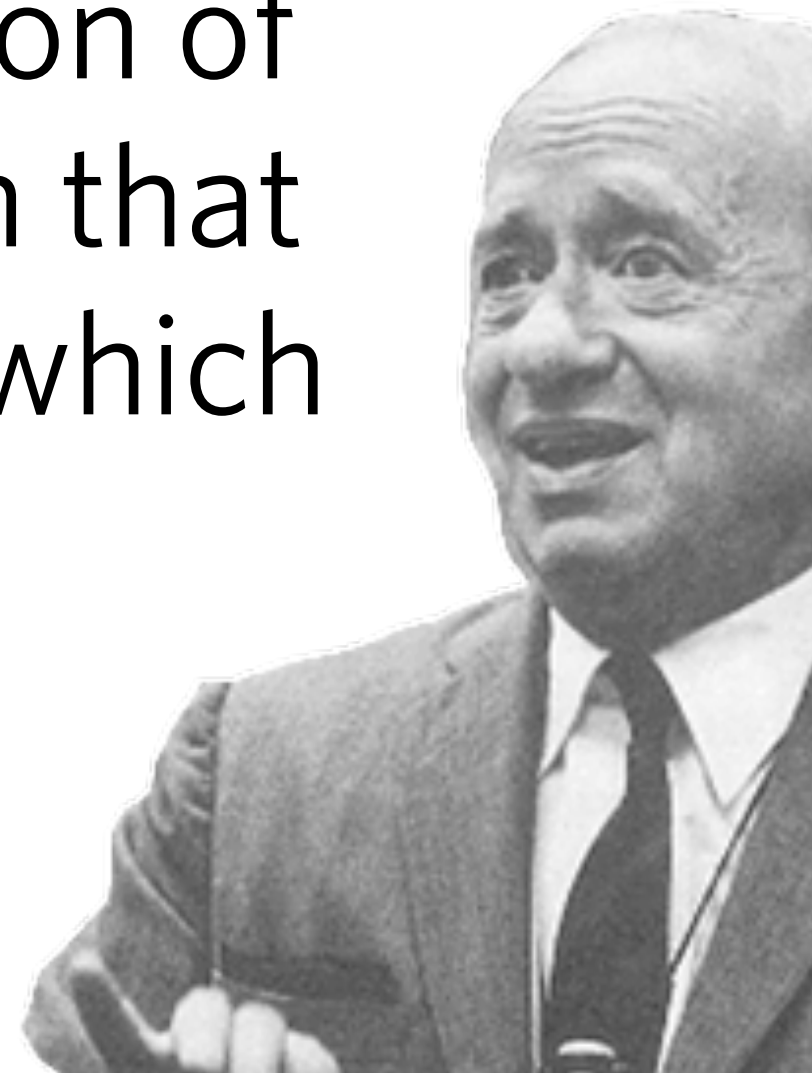
It was not linguistic understanding but mathematical fruitfulness that Tarski sought with his definition, and in this he was very successful.



John Burgess
TARSKI'S TORT (2008)

...the simplest way of obtaining an exact definition of truth is one which involves the use of other semantic notions, e.g., the notion of satisfaction. It is for this reason that we count the concept of truth which is discussed here among the concepts of semantics

THE SEMANTIC CONCEPTION OF TRUTH (1944)

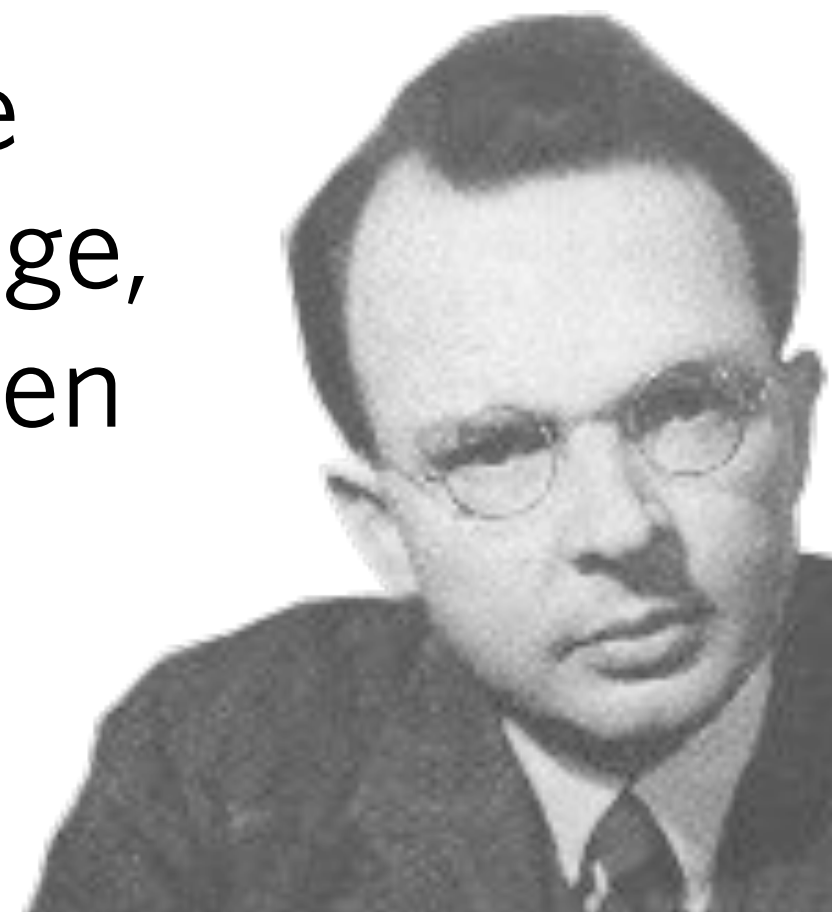


...“pure semantics” is the stipulative
“construction and analysis of a
semantical system”...

“descriptive semantics” is “the
description and analysis of the
semantical features either of some
particular historically given language,
e.g. French, or of all historically given
languages in general”

Rudolph Carnap

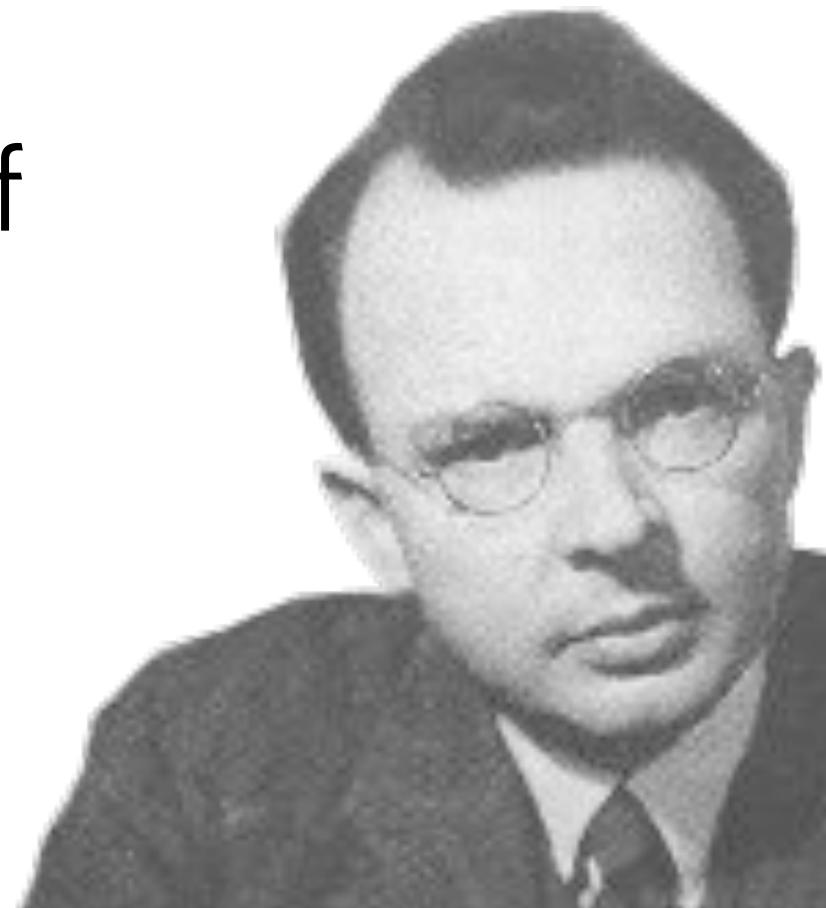
INTRODUCTION TO SEMANTICS (1941)



Our discussions apply only to declarative sentences, leaving aside all sentences of other kinds, e.g. questions, imperatives, etc.; and hence only to language systems (semantical systems) consisting of declarative sentences.

Rudolph Carnap

INTRODUCTION TO SEMANTICS (1941)



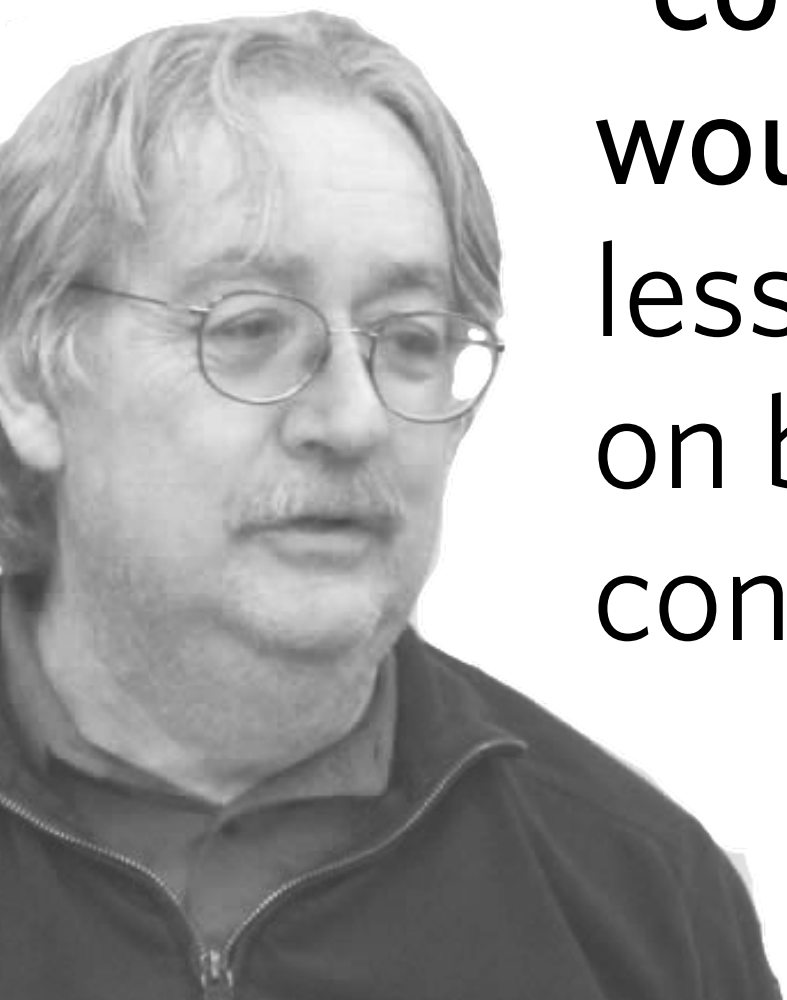


3. The Pivot

...a theory of truth for a
language ... give[s] the
meanings of all
independently meaningful
expressions on the basis of
an analysis of their structure.

DONALD DAVIDSON, 1970





We constantly find in the writings of Davidson and disciples mentions of a “Tarskian” theory of truth, where “counter-Tarskian” or “anti-Tarskian” would have been more accurate, if less likely to confer borrowed prestige on bold (which is to say doubtful) new conjectures.

John Burgess
TARSKI’S TORT (2008)

I reject the contention
that an important
theoretical difference
exists between formal and
natural languages.

Richard Montague
UNIVERSAL GRAMMAR (1970)



Like Donald Davidson, I
regard the construction
of a theory of truth...as
the basic goal of
serious syntax and
semantics...

RICHARD MONTAGUE, 1970



The basic aim of semantics is to characterize the notions of a true sentence (under a given interpretation) and of entailment, while that of syntax is to characterize the various syntactical categories, especially the set of declarative sentences. ... I fail to see any great interest in syntax except as a preliminary to semantics.

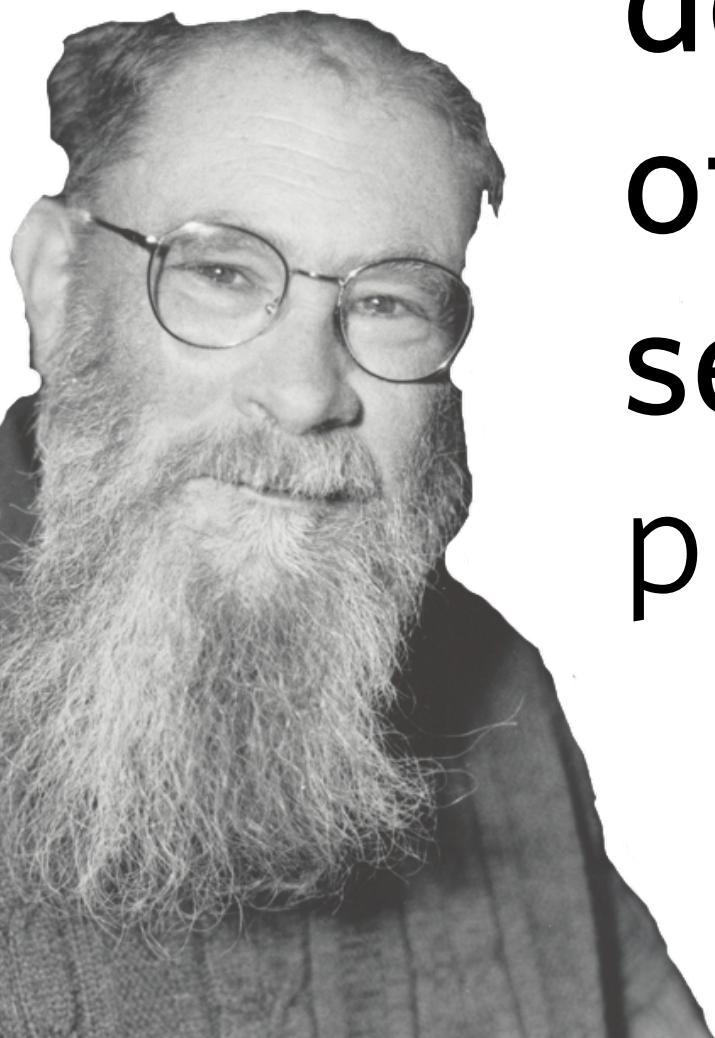
Richard Montague
UNIVERSAL GRAMMAR (1970)



...a straightforward
semantics, based on a
theory of truth for
utterances, works as well
[in the case of non-
declaratives] as elsewhere.


Donald Davidson
MOODS AND PERFORMANCES (1979)






...there is no difference in kind
between the meanings of...non-
declaratives and the meanings
of the ordinary declarative
sentences considered
previously.

David Lewis
'GENERAL SEMANTICS' (1970)



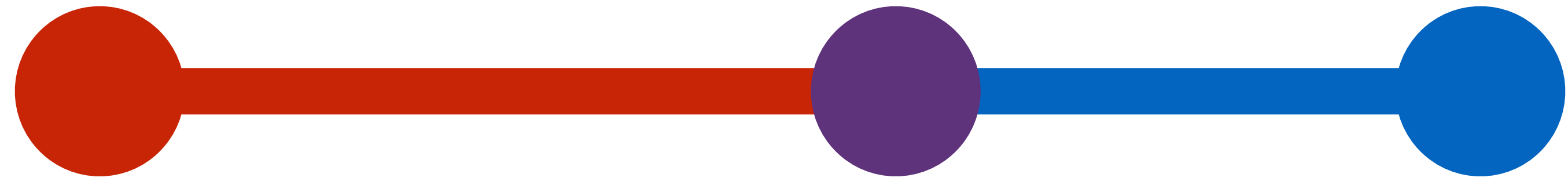
Minimalist idealization is the practice of constructing and studying theoretical models that include ...only those factors that make a difference to the occurrence and essential character of the phenomenon in question.

Michael Weisberg
'THREE KINDS OF IDEALIZATION' (2007)



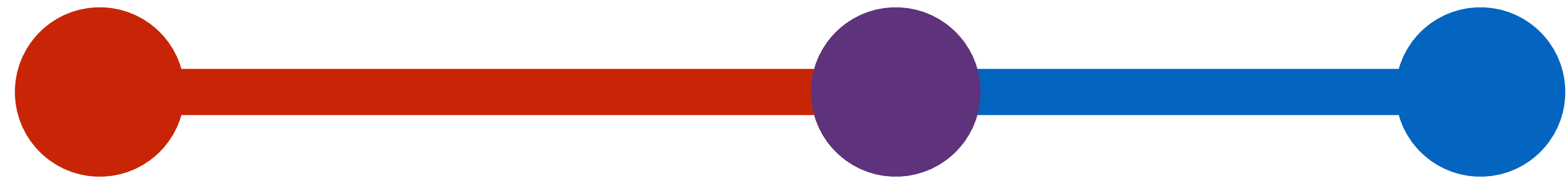
Galilean idealization is the introduction of distortion into a theory in order to make its subject-matter tractable given current theoretical resources.

Michael Weisberg
'THREE KINDS OF IDEALIZATION' (2007)



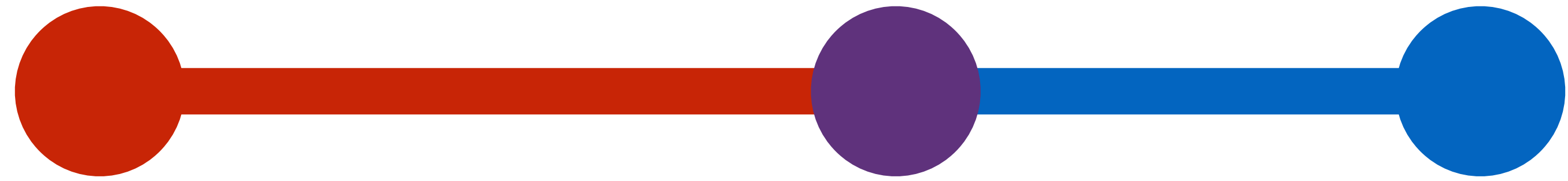
CONCLUSIONS

Frege, Tarski, and Carnap constructed minimal models of language in order to study other things. This was legitimate.



CONCLUSIONS

In adopting the F-T-C methodology, Davidson and Montague took the alethic idealization with it. But given their new goals, the idealization was now a distortion in their primary subject-matter.



CONCLUSIONS

The communicative turn is the alethic idealization being lifted.

THANKS

