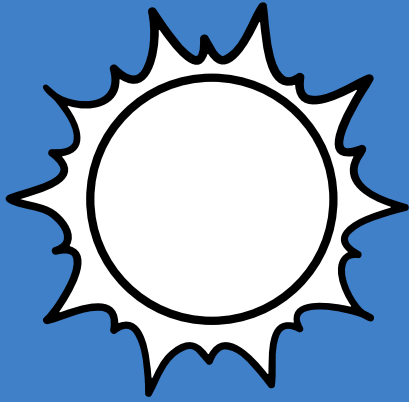


Pragmatics and Disorders of Discourse

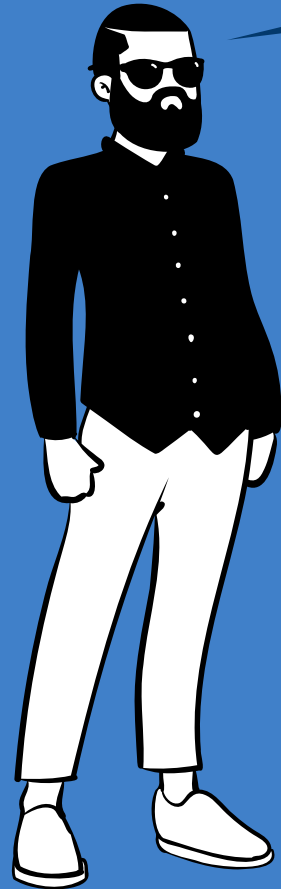
SCSD 638

April 10, 2025



Great weather, isn't it?

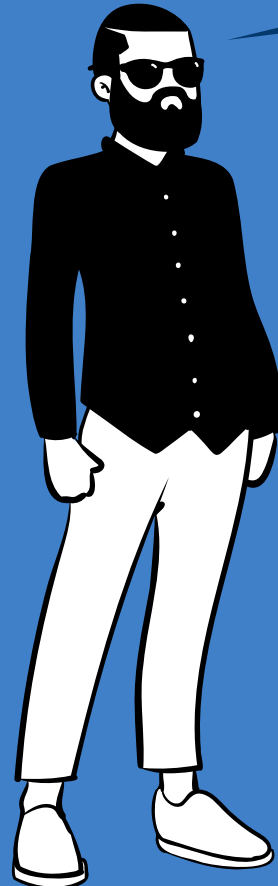
Meaning: The weather is great.





Great weather, isn't it?

Meaning: The weather is not great.
(irony)



Can you pass the salt?

Yes.





Can you pass the salt?



Sure, here you go.

** passes the salt **

Let's all chip in to buy
Paul a new Rolex.

** silence **









They prepared a buffet consisting exclusively of French cheeses. What a wonderful evening!





What is pragmatics?

Pragmatics...

- Focuses on utterances
- Analyzes what are the speaker's goals.
- Explores how speakers convey information beyond what is explicitly said.
- Analyzes the roles of extra- and paralinguistic elements of communication.
- Studies what makes communication successful .

Pragmatics is the study of language use in context, and how context contributes to meaning.

But what context?

- **Physical context** (e.g., immediate environment)
- **Social context** (e.g., social roles)
- **Cultural context** (e.g., norms and conventions)
- **Intentional context** (e.g., speakers' goals and intentions)
- **Cognitive context** (e.g., individual mental states or beliefs)

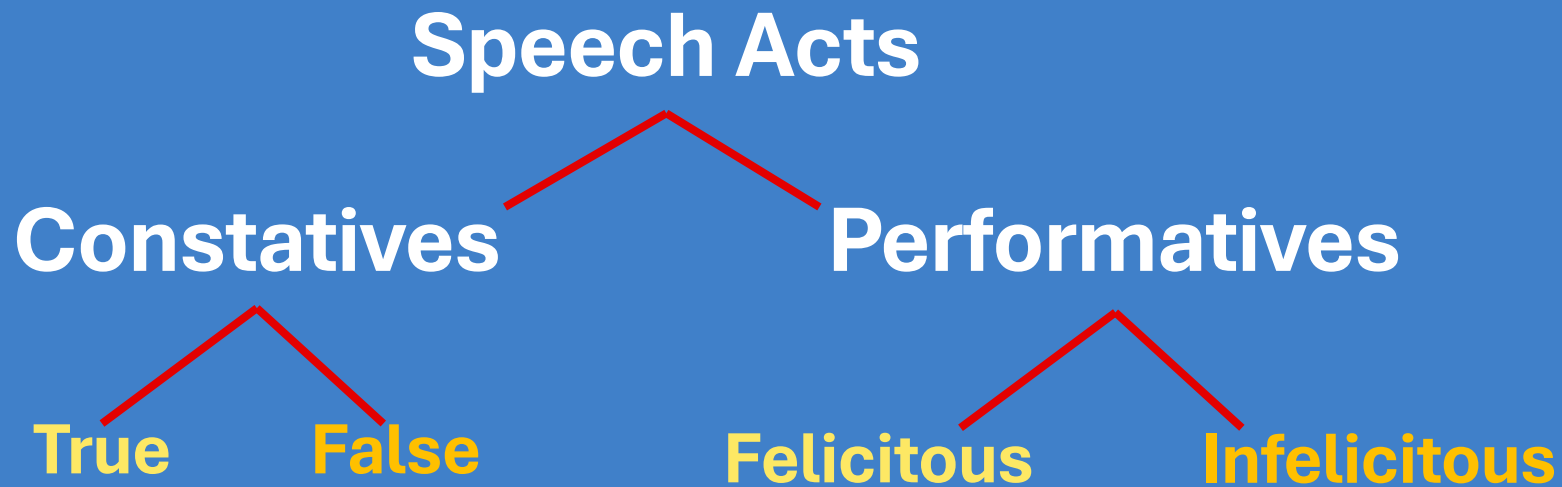
But what context?

- The context of a communicative situation is the vast environment in which the interaction takes place.
- **Common ground** is that part of the context that is shared.

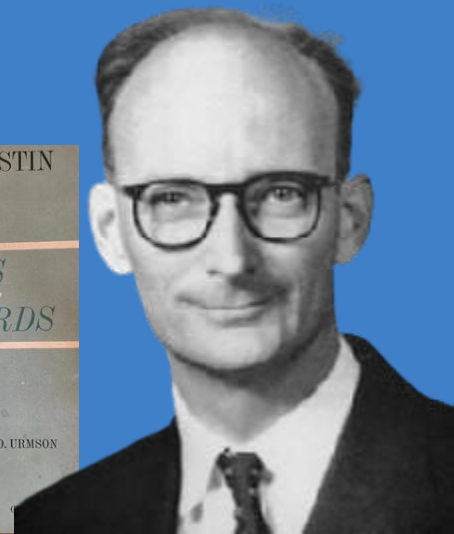
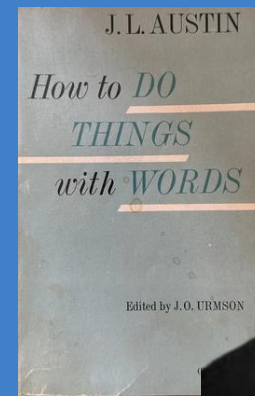


They prepared a buffet consisting exclusively of French cheeses. What a wonderful evening!

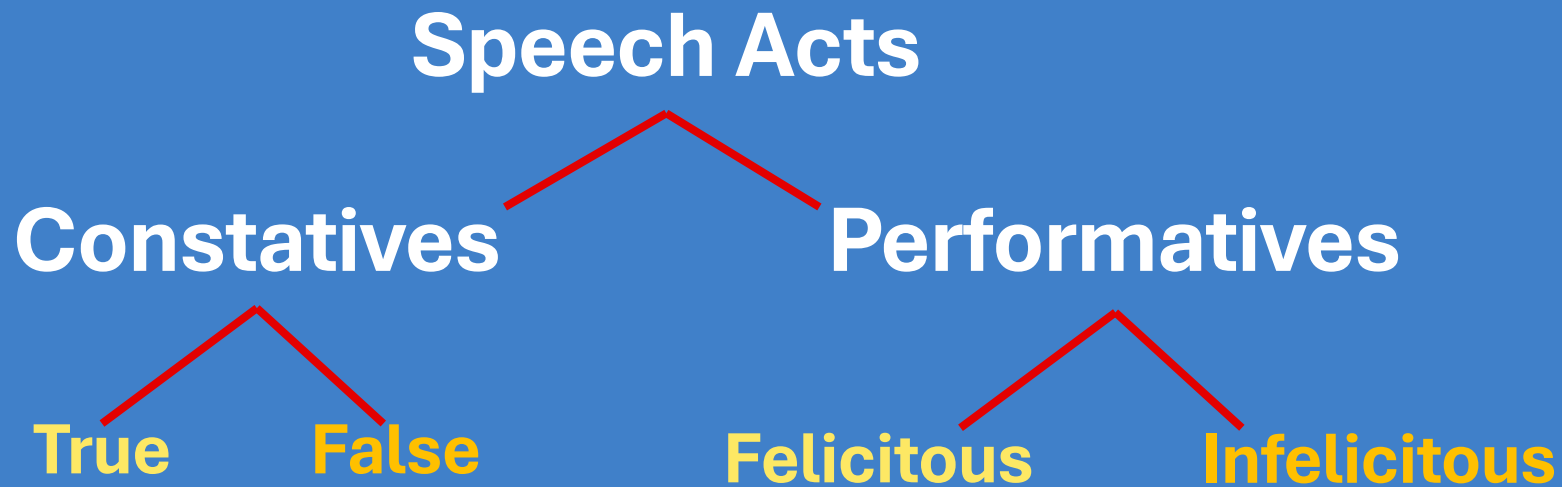
Classic Pragmatics



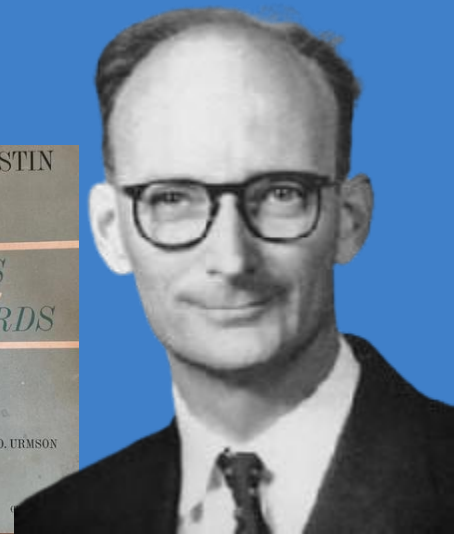
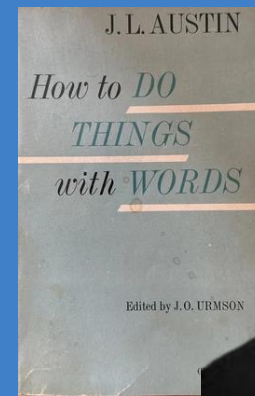
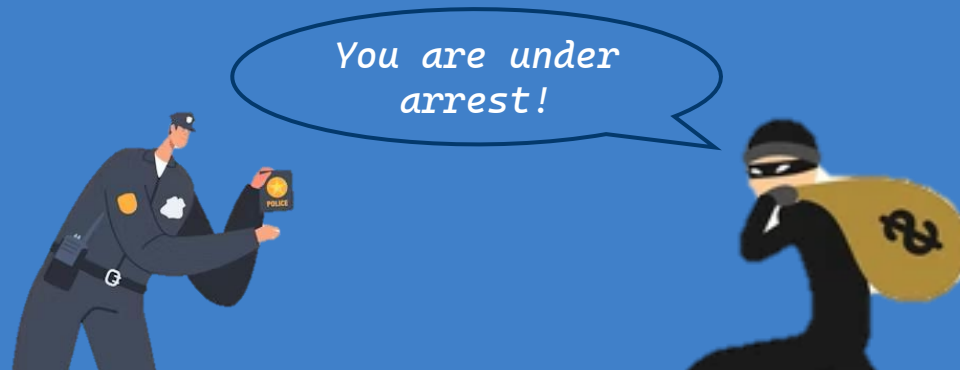
Saying is doing



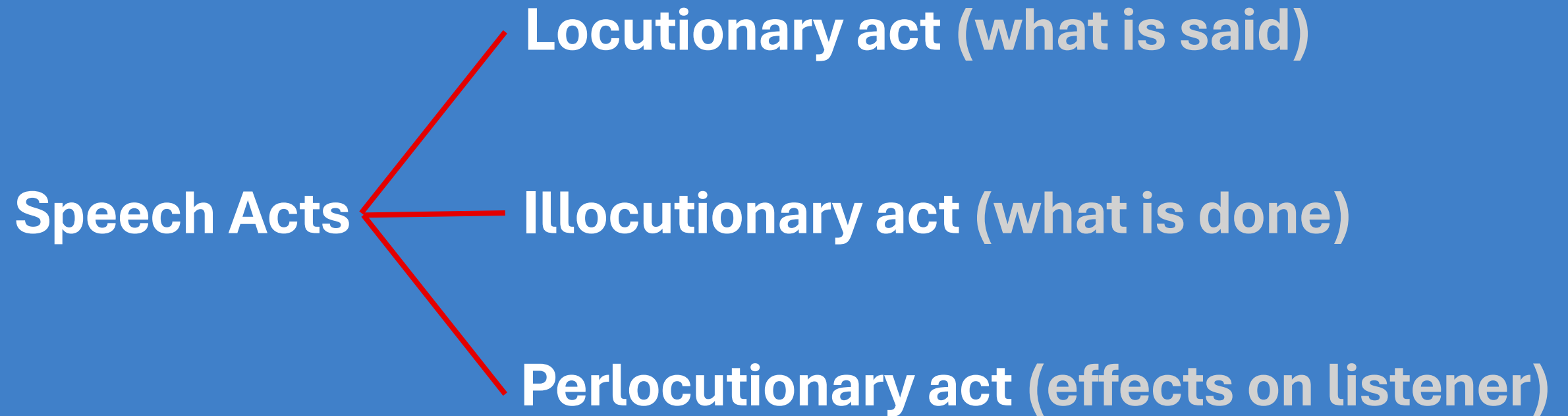
Classic Pragmatics



Saying is doing



Classic Pragmatics



Locutionary act

“Would it be possible to get a few more days to finish the paper?”

Illocutionary act

requesting an extension on a deadline

Perlocutionary act

the professor grants the extension

Locutionary act

“I will help you move to your new apartment”

Illocutionary act

promising to help move to the new apartment

Perlocutionary act

the listener feels reassured and expects to be helped with the move

Locutionary act

“Watch out, the floor is slippery”

Illocutionary act

issuing a warning

Perlocutionary act

listener feels cautious and may take action to avoid slipping

Locutionary act

“I’m really sorry I missed your party”

Illocutionary act

apologizing for missing the party.

Perlocutionary act

listener forgives the speaker

Locutionary act

“I’m cold.”

Illocutionary act

asserting feeling of coldness.

Perlocutionary act

the listener being informed of the speaker’s state.

Context: The window is open and the listener is closer to it.

Locutionary act

“I’m cold.”

Illocutionary act

Requesting listener to close the window

Perlocutionary act

The listener closes the window

Classic Pragmatics

- What is **said** / what is **meant**
- Some things are “implicated” by what is said.



Conversational Implicature



STUDIES
IN THE
WAY OF
WORDS
PAUL GRICE

Classic Pragmatics

Cooperative Principle

- Core assumption: other people are being cooperative.

A: Excuse me, do you have the time?

B: Yes.

Classic Pragmatics

Cooperative Principle

- Core assumption: other people are being cooperative.

A: Excuse me, do you have the time?

B: To be or not to be?

Classic Pragmatics

Cooperative Principle

- Core assumption: other people are being cooperative.

A: Excuse me, do you have the time?

B: It's 3:47pm **(it is actually 5:12pm)**.

Classic Pragmatics

Cooperative Principle

- Core assumption: other people are being cooperative.

A: Excuse me, do you have the time?

B: Oh, absolutely! You know, time is such a fascinating concept, isn't it? I mean, ever since humans first started tracking the movement of celestial bodies, we've been obsessed with measuring it. Right now, if you're asking about the time in the conventional sense, as in the hours and minutes displayed on a clock, well, let me check... Ah, yes, it appears to be 3:47 PM. But of course, that's in this time zone—Pacific Time, to be precise. If you were in, say, New York, it would be 6:47 PM.

Conversational maxims

Maxim of quantity: be informative

Make your contribution as informative as is required.

Do not make your contribution more informative than is required.

Conversational maxims

Maxim of quality: be truthful

Try to make your contribution one that is true.

Do not say what you believe is false.

Do not say that for which you lack adequate evidence.

Conversational maxims

Maxim of relation: be relevant

The information provided should be relevant to the current exchange and omit any irrelevant information.

Conversational maxims

Maxim of manner: be clear

Avoid obscurity of expression.

Avoid ambiguity.

Be brief.

Be orderly.

Conversational maxims

Additional: Politeness rules

Don't impose

Give options

Make the other person feel good – be friendly

Follow the set of collective norms within a specific culture determining the appropriateness of *when*, *how* and *what* a person is allowed to say.

Grice's conversational maxims

- Maxim of quantity: *be informative*
- Maxim of quality: *be truthful*
- Maxim of relation: *be relevant*
- Maxim of manner: *be clear*

Being able to adhere to these maxims is a crucial aspect of pragmatic skills.

Strategically flouting these maxims is also a crucial pragmatic skill!

Conversational Implicature

A: Are you going to the party tomorrow?

B: I don't like parties.

Relevance theory: Speakers provide information that listeners interpret by seeking the most relevant meaning—that is, one requiring the least cognitive effort for the greatest contextual effect.

- The other person is cooperative.
- Therefore, their flouting of a maxim has a relevant meaning.
- i.e., something was implied by what was said.

Meaning: B is not going to the party.

Conversational Implicature

A: Can I get gas somewhere around here?

B: There's a gas station around the corner.



- The other person is cooperative.
- Therefore, their flouting of a maxim has a relevant meaning.
- i.e., something was implied by what was said.



Meaning: A can get gas at the gas station around the corner.

Conversational Implicature

A: Wow, this rain is awful.

B: Oh yes, perfect weather for a picnic!

Which maxim is flouted?

A) Maxim of quantity: *be informative*

B) Maxim of quality: *be truthful*

C) Maxim of relation: *be relevant*

D) Maxim of manner: *be clear*

What is the implied meaning?

Conversational Implicature

A: Can you pick me up from the airport?

B: I have a dentist appointment that day.

Which maxim is flouted?

A) Maxim of quantity: *be informative*

B) Maxim of quality: *be truthful*

C) Maxim of relation: *be relevant*

D) Maxim of manner: *be clear*

What is the implied meaning?

Conversational Implicature

A: How was the pragmatics lecture?

B: It was the most boring lecture in the history of human kind!

Which maxim is flouted?

A) Maxim of quantity: *be informative*

B) Maxim of quality: *be truthful*

C) Maxim of relation: *be relevant*

D) Maxim of manner: *be clear*

What is the implied meaning?

Conversational Implicature

A: What did you do today?

B: Hmm, I went to work.

Which maxim is flouted?

A) Maxim of quantity: *be informative*

B) Maxim of quality: *be truthful*

C) Maxim of relation: *be relevant*

D) Maxim of manner: *be clear*

What is the implied meaning?

Conversational Implicature

A: Did you like the play?

B: Well, the costumes were quite colorful, and the actors seemed very committed to their roles.

Which maxim is flouted?

A) Maxim of quantity: *be informative*

B) Maxim of quality: *be truthful*

C) Maxim of relation: *be relevant*

D) Maxim of manner: *be clear*

What is the implied meaning?

The problem of implicitness

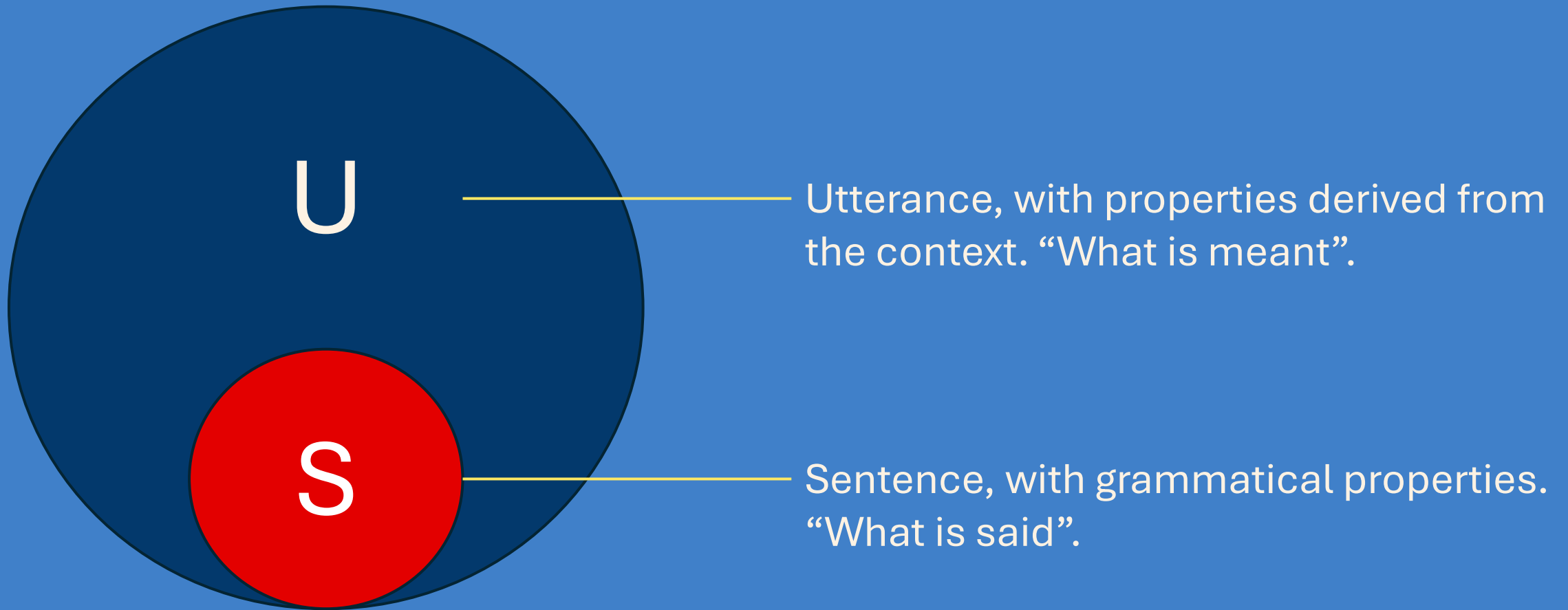
- Implicit meaning
 - Total explicitness
 - Implicitness is e
- guage use.

Thus, when we co
knowledge.

e of world



Pragmatic Minimalism



Lexicon → syntax → semantics → said → implied

Profiles of Communication Deficits in Patients with Right Cerebral Hemisphere Damage: Implications for Diagnosis and Treatment

Penelope S. Myers

The George Washington University Medical Center, Washington, D.C.

Statement of the Problem

As we all know from personal experience and from the available literature, many right hemisphere patients do not communicate adequately. Their speech has been characterized as copious and inappropriate, as confabulatory, irrelevant, literal, and occasionally bizarre (Brookshire, 1973; Collins, 1976; Gardner et al., 1975; Gardner, 1976). These descriptions were borne out for the most part in work done during the past year with right hemisphere (RH) patients. It was found in the course of interviewing 20 RH patients that communication problems, when they exist, tend to be manifest by irrelevant and often excessive information and by literal treatment of questions and events. Specifically, when responding to open-ended questions such as, "Tell me what happened to you and why you're in the hospital," many patients could address, but not answer, the question. They seemed unable to provide the structure or overview called for by the question. They wended their way through a maze of disassociated detail, seemingly incapable of filtering out unnecessary information. Although they had at their disposal all the components of a narrative, they could not actually assemble them into a narrative. What appeared to be lacking was: 1) the ability to integrate discrete items of information into a whole; and 2) the ability to provide an interpretation of events or situations.

Subjects. Eight right-handed adults with unilateral right-sided brain damage were tested. There were four male and four female subjects ranging in age from 60 to 76 years with a mean age of 69.5. Localizing information obtained from each subject's medical chart was verified by computerized axial tomography (CT Scans). One subject had a temporal lesion, two had temporal-parietal, two had fronto-temporal-parietal, and three had occipital-parietal lesions. All subjects had moderate to severe left-sided neglect and were oriented and alert at the time of testing. The control group consisted of education-matched right-handed adults with no history of neurological disease. There were three male and five female controls ranging in age from 60 to 85 years, with a mean age of 71.2.

Tests Administered. Both the experimental and control groups were administered two tests: The Hooper Visual Organization Test (Hooper, 1958) and a picture description test. In addition the experimental group was given 18 subtests of the Boston Diagnostic Aphasia Examination (BDAE) (Goodglass and Kaplan, 1972) as a check against aphasia. In general the results of the aphasia examination revealed that the subjects did not have a language-specific deficit. A composite Z-score profile was drawn up (Figure 1) depicting the mean scores and the range for each subtest. It is interesting to note that the highest and lowest scores for each subtest were scattered across the group.

Discussion

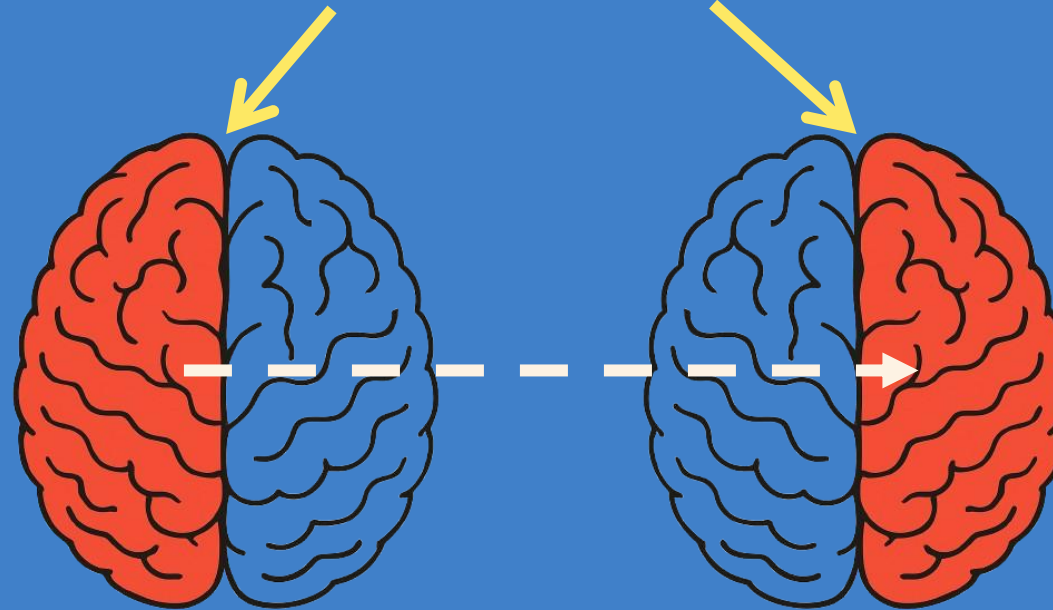
Taken together these results lend support to the hypothesis that RH patients have difficulty integrating information both on a perceptual and on a more formal level and that this deficit is reflected in their verbal output. The actual transcripts are even more revealing of the experimental subjects' tendency to itemize, rather than interpret, information (see

Hypotheses of Splitting Language Processing in the Brain (HSLPs)

“Fine vs. Coarse Coding Hypothesis”

...→ semantics → said → implied

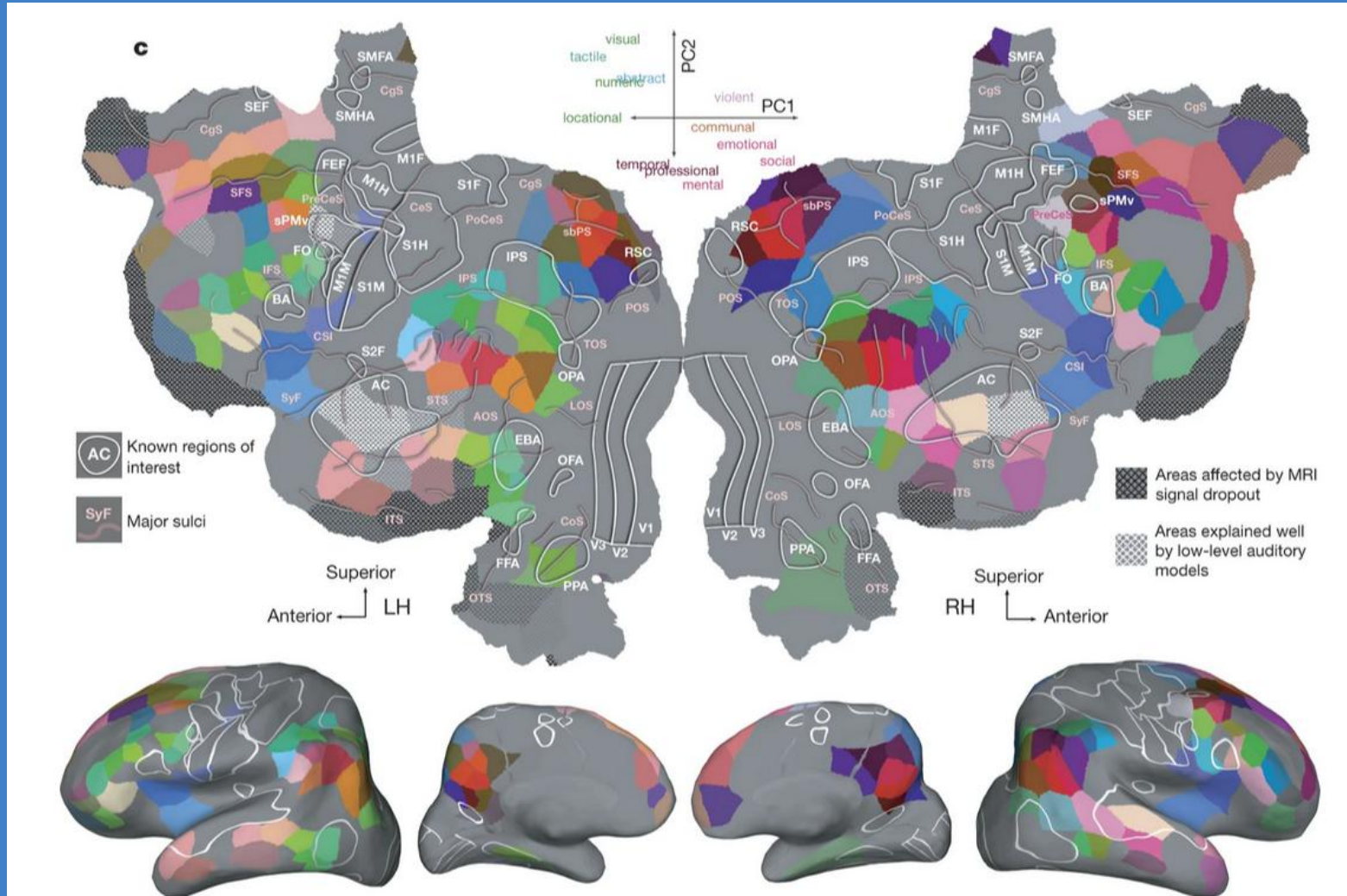
LH: narrow semantic fields connected to the conventional meaning of words.



RH: broad semantic fields corresponding to the secondary or non-literal meaning of words.

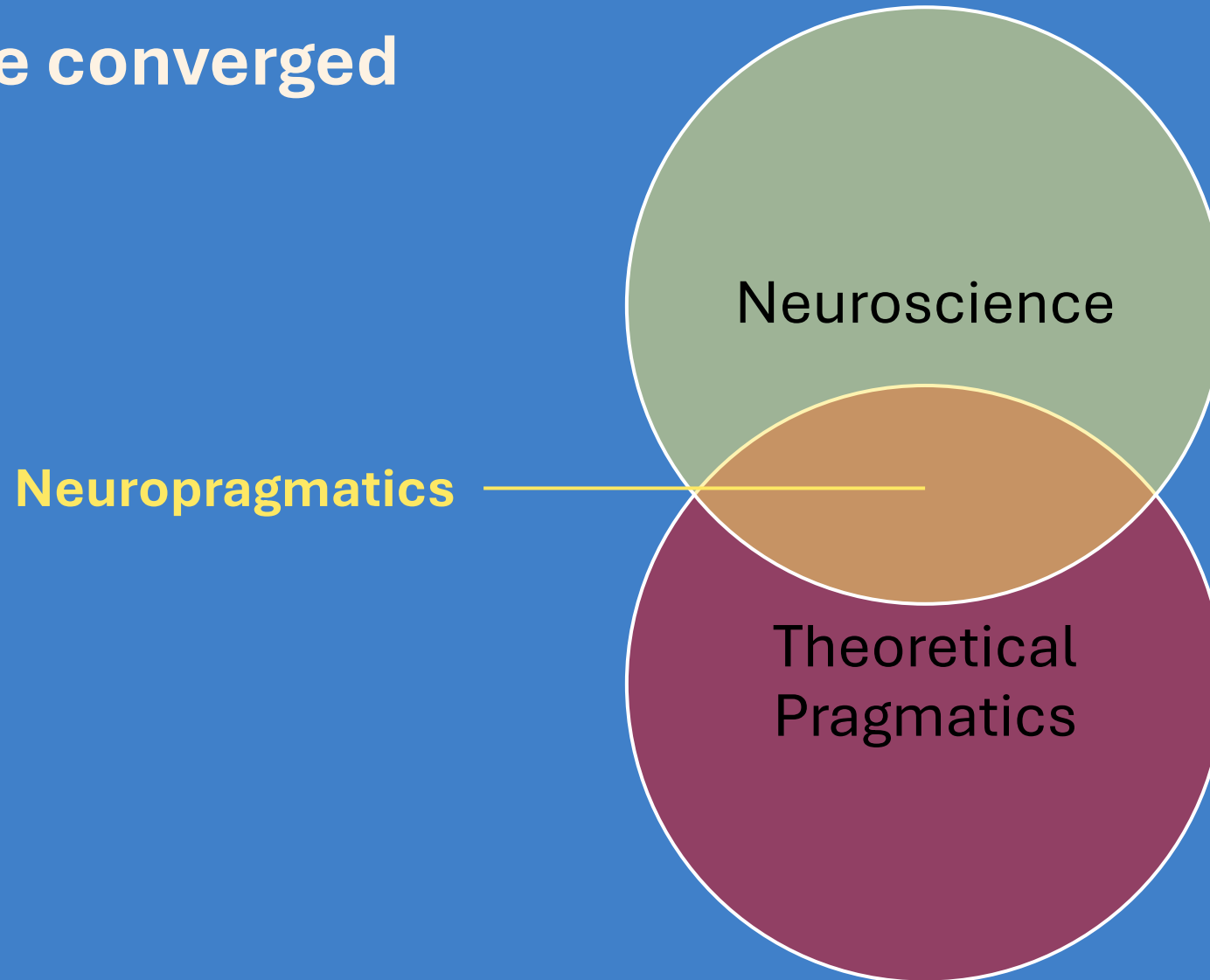
Current Theories

1) Semantic processing is not confined to the left-hemisphere

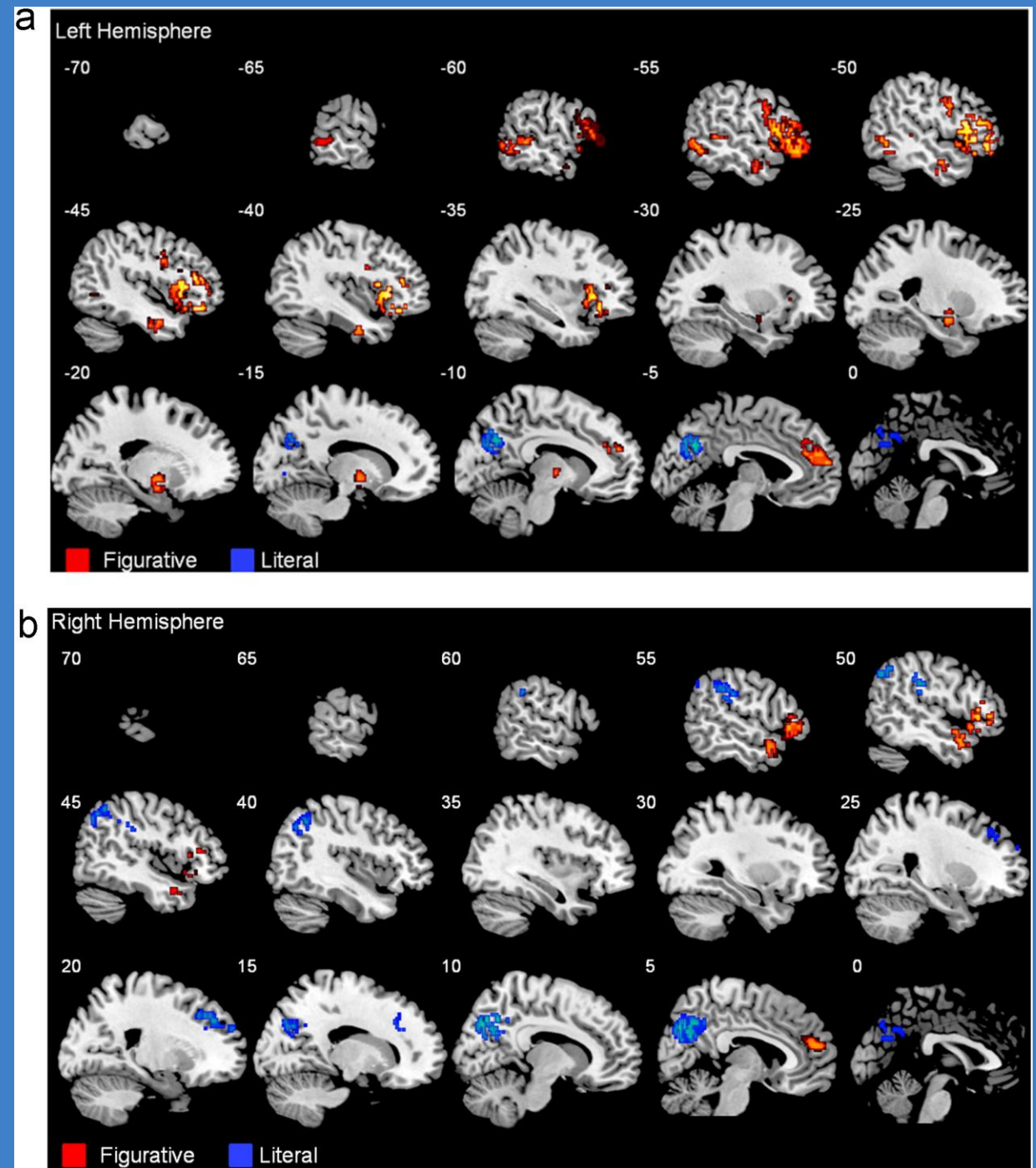


Current Theories

2) Fields have converged



Meta-analysis of 22 studies showing brain activity related to figurative language perception



RHD Today

Emotional processing and production

- Consistent evidence of deficits in emotional prosody.
 - Greater role of RH in emotional than linguistic prosody.
 - Pitch variations (RH) vs temporal variations (LH).
 - Apraxia is more common following RHD than LHD.
- RHD patients display impaired performance at evaluating speaker attitudes (confidence and politeness) from prosodic cues.

General Discourse Production:

Profiles of Communication Deficits in Patients with Right Cerebral Hemisphere Damage: Implications for Diagnosis and Treatment

Penelope S. Myers

The George Washington University Medical Center, Washington, D.C.

Statement of the Problem

As we all know from personal experience and from the available literature, many right hemisphere patients do not communicate adequately. Their speech has been characterized as copious and inappropriate, as confabulatory, irrelevant, literal, and occasionally bizarre (Brookshire, 1973; Collins, 1976; Gardner et al., 1975; Gardner, 1976). These descriptions were borne out for the most part in work done during the past year with right hemisphere (RH) patients. It was found in the course of interviewing 20 RH patients that communication problems, when they exist, tend to be manifest by irrelevant and often excessive information and by literal treatment of questions and events. Specifically, when responding to open-ended questions such as, "Tell me what happened to you and why you're in the hospital," many patients could address, but not answer, the question. They seemed unable to provide the structure or overview called for by the question. They wended their way through a maze of disassociated detail, seemingly incapable of filtering out unnecessary information. Although they had at their disposal all the components of a narrative, they could not actually assemble them into a narrative. What appeared to be lacking was: 1) the ability to integrate discrete items of information into a whole; and 2) the ability to provide an interpretation of events or situations. For example, when asked, "Tell me about what happened to you and why you are in the hospital," one patient produced the following lengthy answer:

RHD Today

General Discourse Production:

- Brady (2003) had RDH patients:
 - Recount their stroke story
 - Explain how to make a sandwich or replace a plug

No systematic differences between groups.

- Kennedy (2000) had RDH patients:
 - Get to know a new person through a 10m informal conversation

No overall differences in use of topic scenes.

- Marini (2005) had RDH patients do:
 - Familiar story paraphrasing (e.g., *Cinderella*)
 - Creating a story from picture sequences

All groups performed comparably in story task, but not in picture tasks.

The more implicit or natural the task is, the more likely it is that adults with RHD will do well and perform similarly to adults with no brain damage.

RHD Today

The more implicit or natural the task is, the more likely it is that adults with RHD will do well and perform similarly to adults with no brain damage.

General Discourse Production:

Little support for the perception that the RHD population experiences widespread topic difficulties.

Few systematic differences emerge in simple* naturalistic tasks (conversations, personal stories, or retelling familiar narratives).

Assessments using more sensitive measures or exploration of the utility of combined measures are necessary.

Non-literal language comprehension

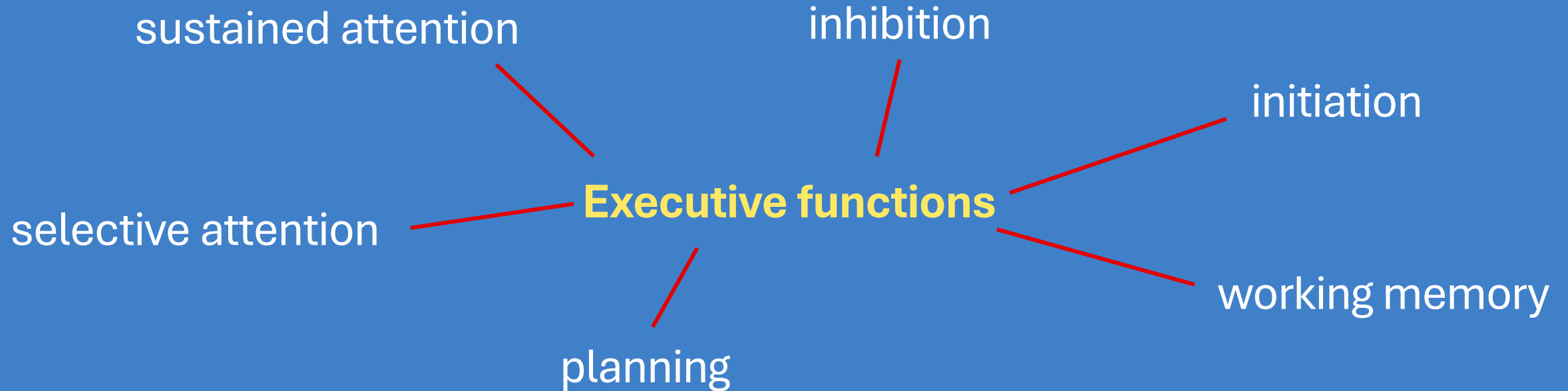
- Partial evidence for (task-dependent) slightly reduced comprehension of idioms and metaphors, compared to LDH patients and people with NBD.
- Consistent evidence for a processing deficit of irony / sarcasm.
 - i.e., in correctly interpreting **what is meant**.
 - the intended meaning is the opposite of the literal meaning.
 - Irony comprehension relies on “mind reading” and prosodic cues.

RHD Today

RHD closing remarks:

- Marked deficit in understanding of affective prosody.
- Performance in discourse production and non-literal meaning interpretation has been largely **dependent on task complexity**.
- Sensitive measures are needed that account for other cognitive impairments.

Cognitive Substrates of Pragmatic Disruption



Novel, nonroutine, nonfamiliar, unstructured situations demand a high degree of executive function.

- Clinical and experimental assessment is one such situation.
- Conversation is often one such situation.

This is Sally.



Sally has a basket.



This is Anne.



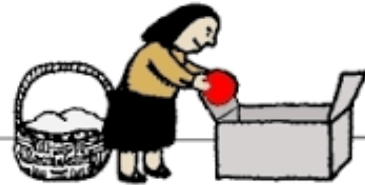
Anne has a box.



Sally has a marble. She puts the marble into her basket.



Sally goes out for a walk.



Anne takes the marble out of the basket and puts it into the box.

Now Sally comes back. She wants to play with her marble.



Where will Sally look for her marble?

Cognitive Substrates of Pragmatic Disruption



Theory of mind (ToM)

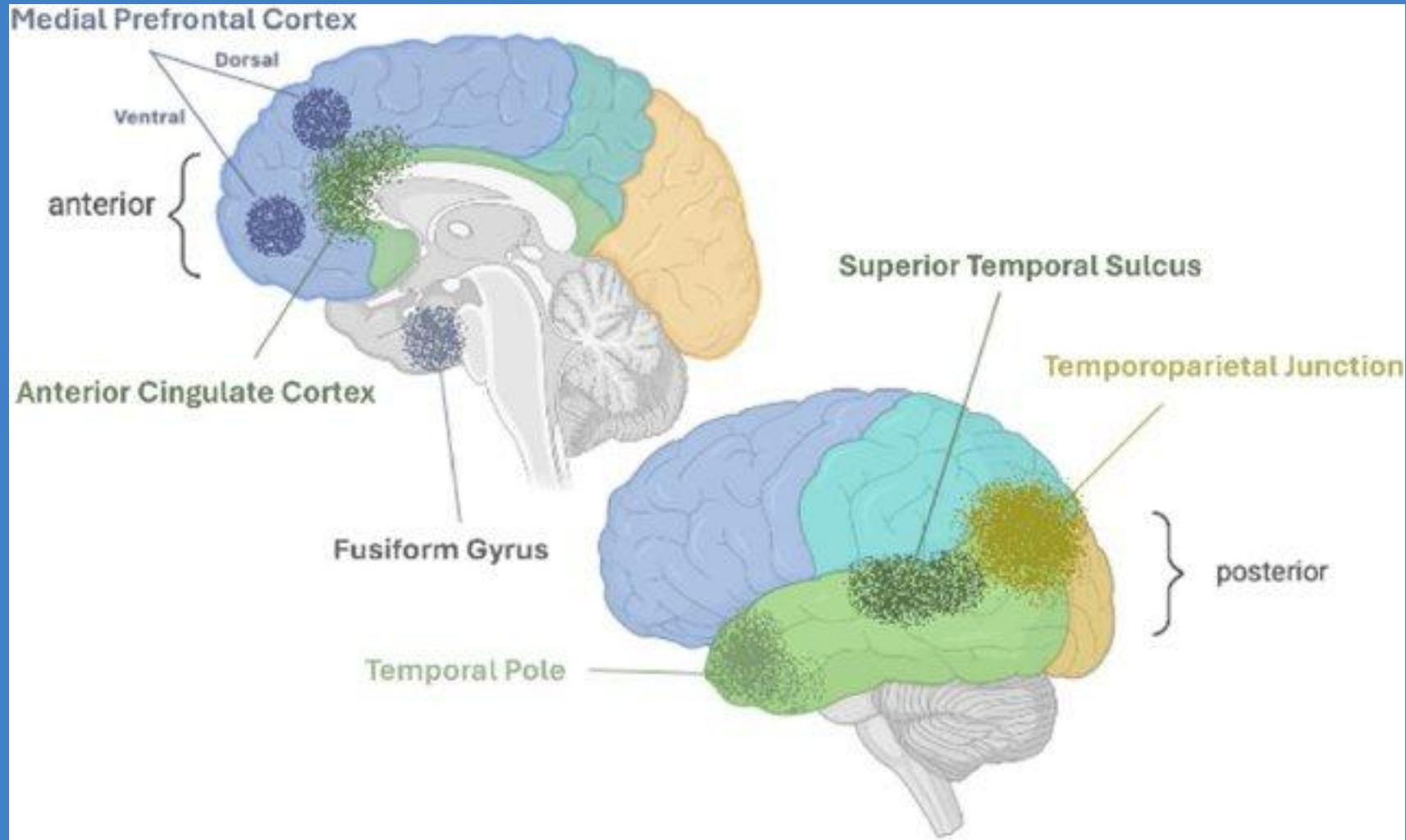
The ability to attribute intentions, thoughts, and beliefs to others.

Utterance interpretation (*what is meant*) is a mind-reading exercise.

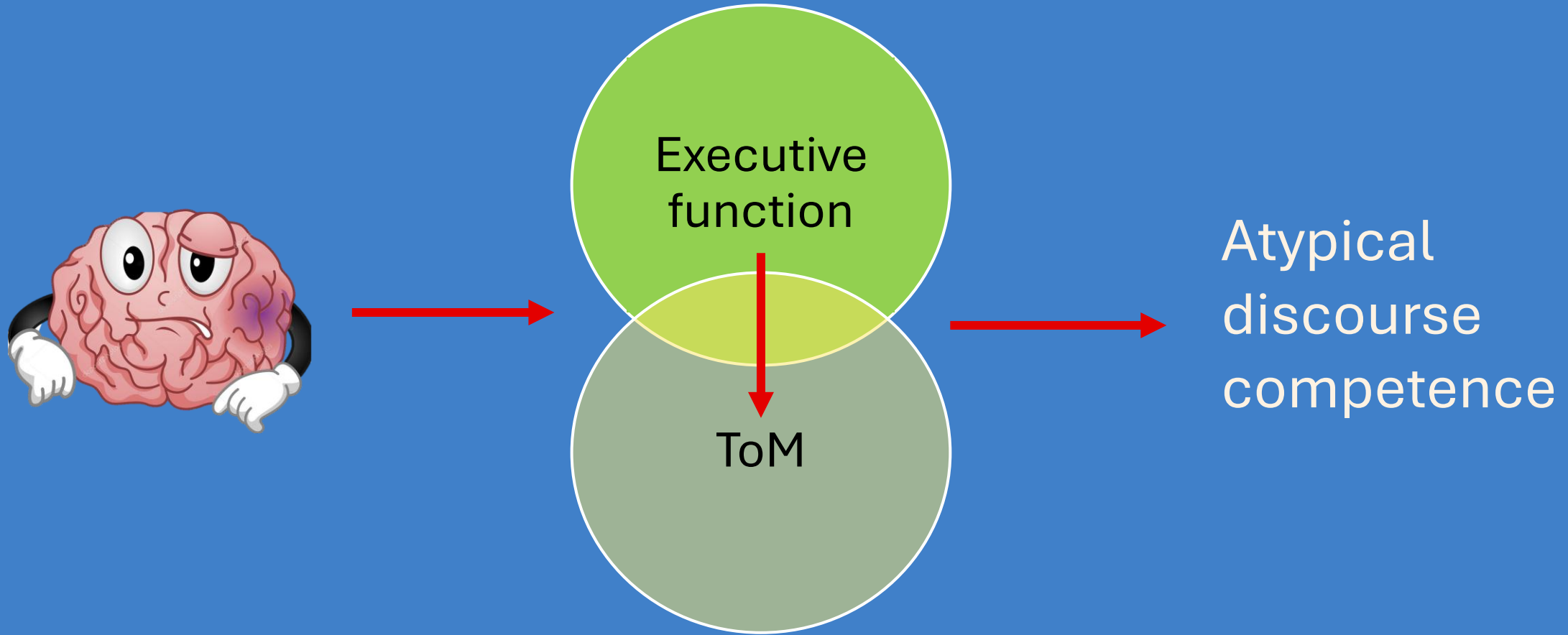


They prepared a buffet consisting exclusively of French cheeses. What a wonderful evening!

Cognitive Substrates of Pragmatic Disruption



Cognitive Substrates of Pragmatic Disruption

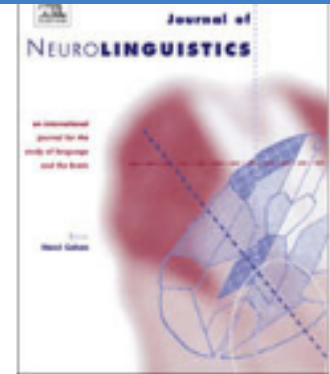




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journal homepage: www.elsevier.com/locate/jneuroling



Pragmatics, theory of mind and executive functions after a right-hemisphere lesion: Different patterns of deficits

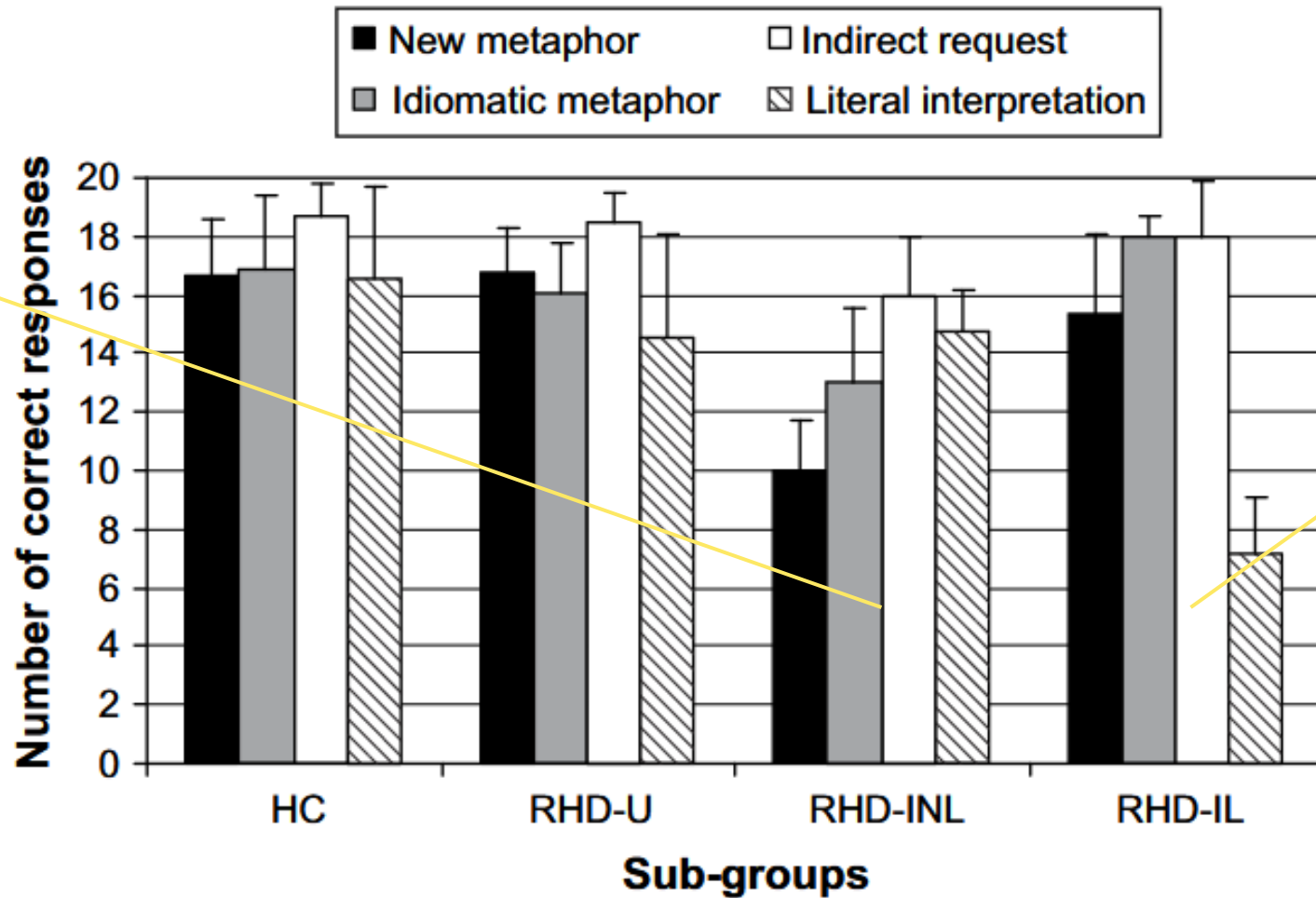
Maud Champagne-Lavau^{a,c,*}, Yves Joanette^{b,c}

^a Pavillon Albert-Prévost, Hôpital du Sacré-Coeur de Montréal, Quebec, Canada

^b Centre de recherche, Institut universitaire de gériatrie de Montréal, Quebec, Canada

^c Faculté de médecine, Université de Montréal, Quebec, Canada

accompanied
by impaired ToM
performance



accompanied
by impaired EFs
performance

HC: Healthy control; RHD-U: RHD participants unimpaired on pragmatics; RHD-INL: RHD participants impaired on non-literal conditions such as new metaphor and indirect request; RHD-IL: RHD participants impaired on the literal interpretation condition.

Traumatic Brain Injury (TBI)

What is it? Brain dysfunction caused by external force—ranging from mild concussions to severe injuries with lasting impact.

Structural language often intact:

- Normal syntax and vocabulary

Pragmatic competence often impaired:

- Trouble understanding implied meaning
- Disorganized, tangential, or verbose discourse
- Difficulty with prosody and emotional tone
- Impaired use and interpretation of nonverbal cues

Evaluation of Pragmatic Abilities

1. Profiles or checklists

- Typically used in the clinical context
- Examiner judges the presence or absence, or appropriateness or inappropriateness, of specific abilities designated as pragmatic.

NAME: _____
 COMMUNICATIVE
 SETTING OBSERVED _____

DATE: _____
 COMMUNICATIVE PARTNER'S
 RELATIONSHIP _____

<i>Communicative act</i>	<i>Appropriate</i>	<i>Inappropriate</i>	<i>No opportunity to observe</i>	<i>Examples and comments</i>
<i>Verbal aspects</i> A. Speech acts 1. Speech act pair analysis 2. Variety of speech acts B. Topic 3. Selection 4. Introduction 5. Maintenance 6. Change C. Turn taking 7. Initiation 8. Response 9. Repair/revision 10. Pause time 11. Interruption/overlap 12. Feedback to speakers 13. Adjacency 14. Contingency 15. Quantity/conciseness D. Lexical selection/use across speech acts 16. Specificity/accuracy 17. Cohesion E. Stylistic variations 18. The varying of communicative				

Evaluation of Pragmatic Abilities

2. Discourse and conversation analysis

- Patient's family records natural everyday conversations at home.
- Examiner systematically analyses patient's pragmatic performance and compensatory strategies.
- Mostly used for intervention planning.

Evaluation of Pragmatic Abilities

3. Pragmatics tests

- Typically, easy to administer and are predictable in terms of how long they take.
- Typically, lack of ecological validity and sensitivity.

However: **Assessment Battery of Communication—ABaCo**

Evaluation of Pragmatic Abilities

Assessment Battery of Communication—ABaCo

- **Five evaluation scales:** linguistic, extralinguistic, paralinguistic, context, conversational scale
- **180 items:** 72 examiner-prompted, and 108 from videotaped scenes

Videotaped item #1:

Frank, Paula and Clare are in the kitchen, seated at the table, and they are having dinner.

Frank says: *“This pasta is very good, who has cooked it?”*

Paula answers: *“I’m glad that my effort is appreciated”*

Test question: Who cooked the pasta?

Traumatic Brain Injury (TBI)

Communicative impairment in traumatic brain injury:
A complete pragmatic assessment

R. Angeleri^a, F.M. Bosco^{a,b,*}, M. Zettin^c, K. Sacco^{a,b,d}, L. Colle^{a,b}, B.G. Bara^{a,b}

- 21 TBI patients and 33 healthy controls
- ABaCo – scored by two independent judges (high agreement)

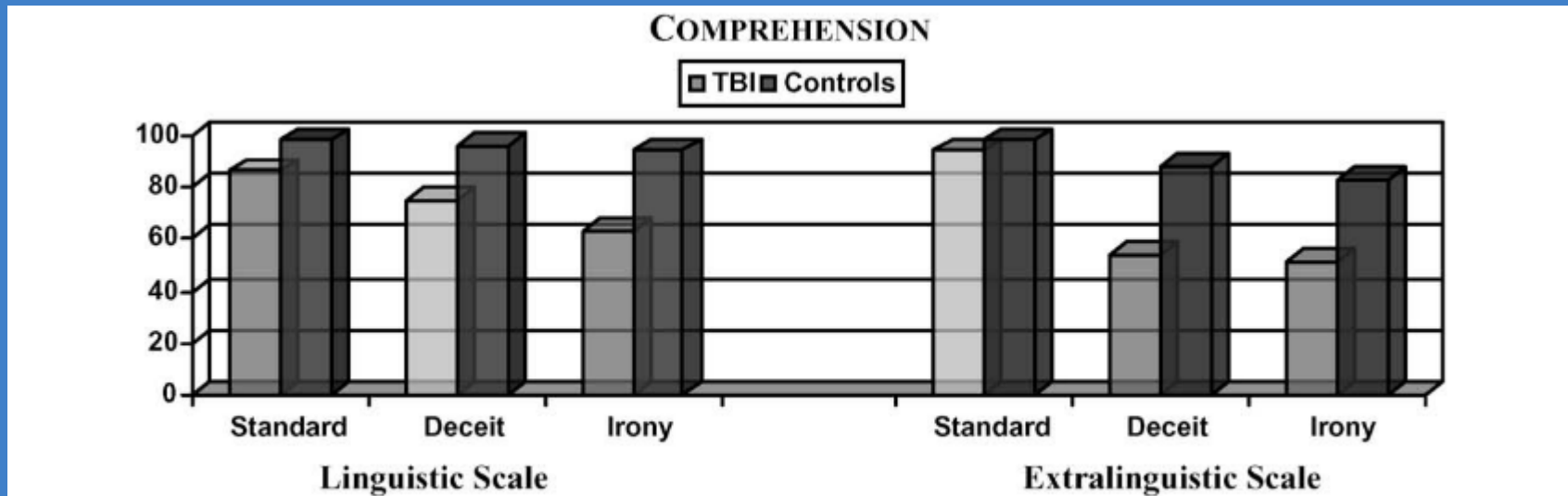


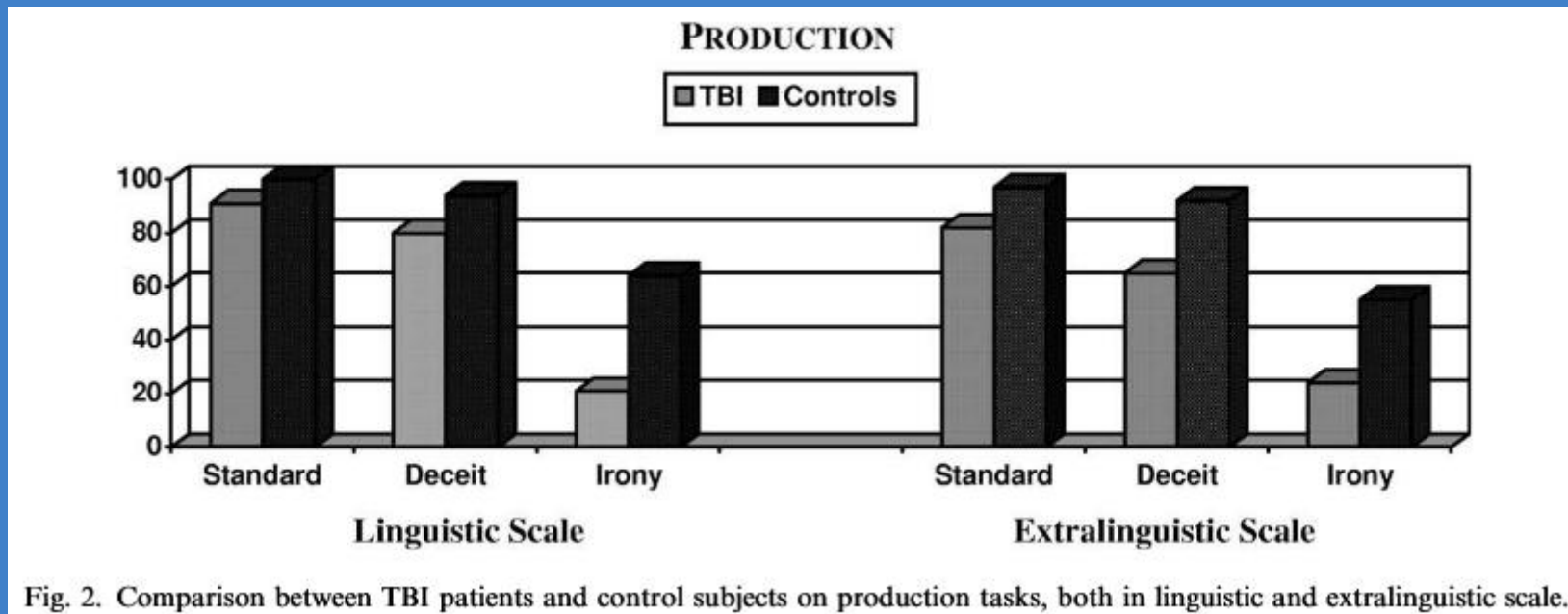
Fig. 1. Comparison between TBI patients and control subjects on comprehension tasks, both in linguistic and extralinguistic scale.

Traumatic Brain Injury (TBI)

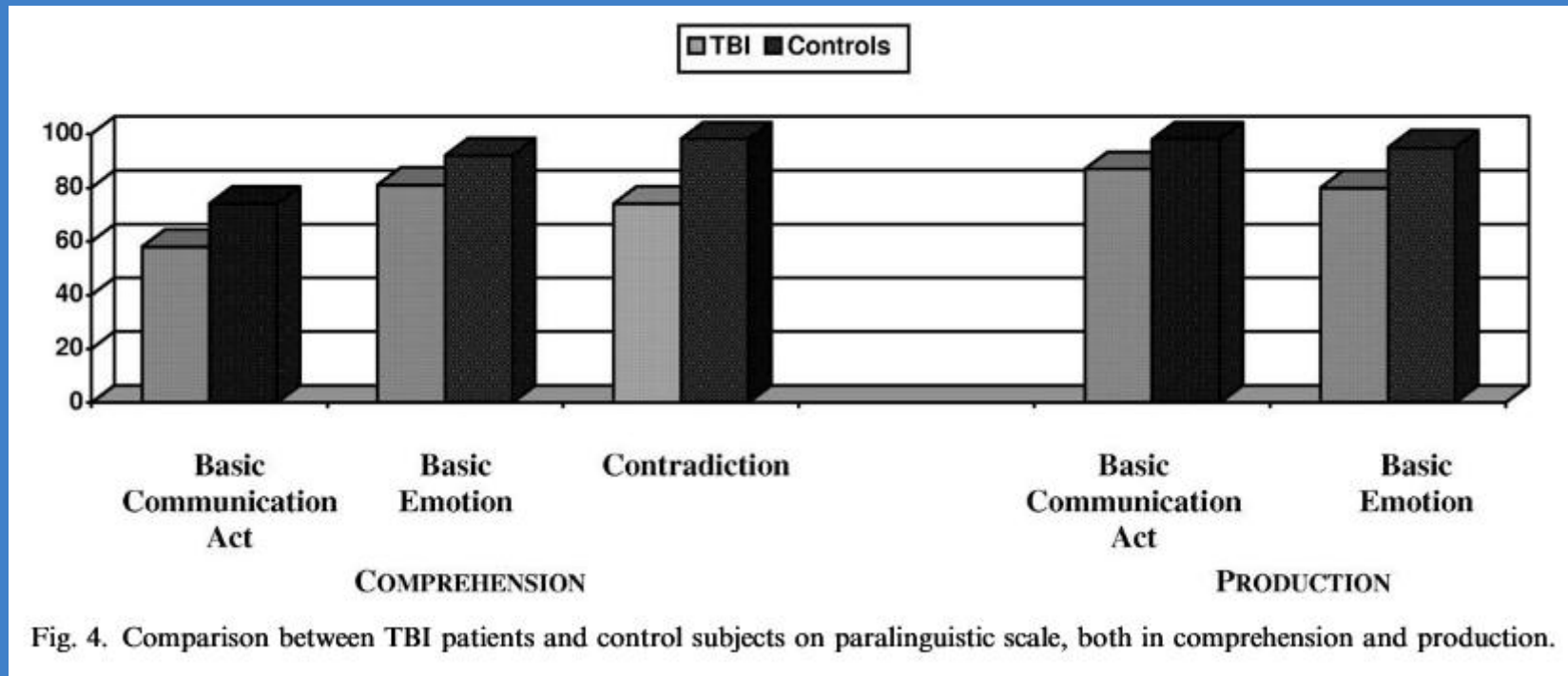
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- 21 TBI patients and 33 healthy controls
- ABaCo – scored by two independent judges (high agreement)



Traumatic Brain Injury (TBI)



Conversational scale:

No significant difference in either topic elements or in turn-taking, but difficulties in topic maintenance.

Aphasia

What is it? Acquired language disorder that impairs speaking, understanding, reading, or writing

Relative pragmatic strength. Pragmatic disruption is classically seen a secondary consequence of language impairment.

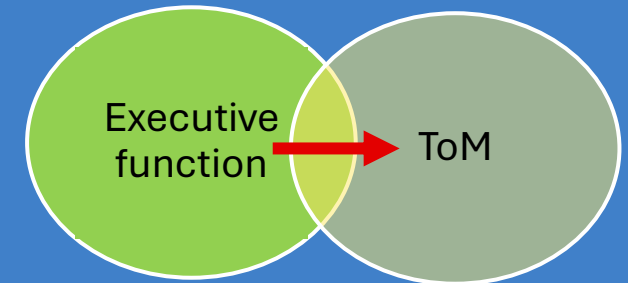
- ✓ **Procedural knowledge of conversation structure** (likely mediated by intact right-hemisphere networks)
- ✗ **Topic management**
 - Non-fluent: less initiation
 - Fluent: normal initiation, poor maintenance

Aphasia

☑ Many Inferential pragmatic abilities are retained. Except inferences that heavily tax linguistic working memory or cognitive control in fluent aphasia.

☑ **Implicatures** entails inferring what the speaker didn't say but could have:

- inhibition of literal interpretation,
- switching to context-based interpretation,
- holding multiple meanings in mind



If co-occurring EF deficit, individuals may show deficits. (non-fluent)

If individuals cannot decode *what was said*, they will not be able to decode *what was meant*. (fluent)

Pragmatics Interventions

Interventions targeting pragmatic skills.

- Focus on role-playing
 - Social skills training program
 - Group therapy

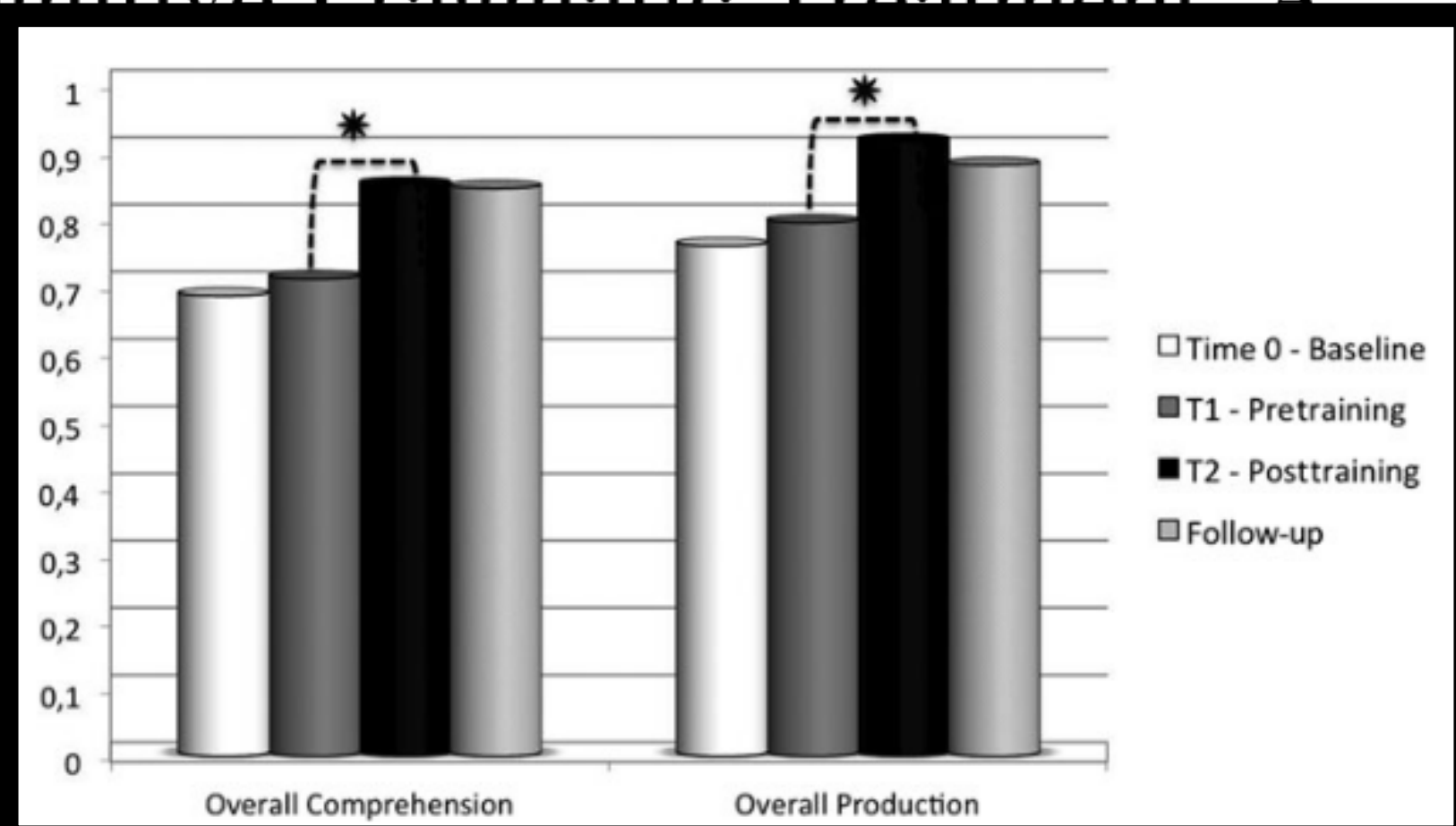
Interventions targeting cognitive substrates.

- Theory of mind
- Executive function
- Affective states

Cognitive Pragmatic Treatment: A

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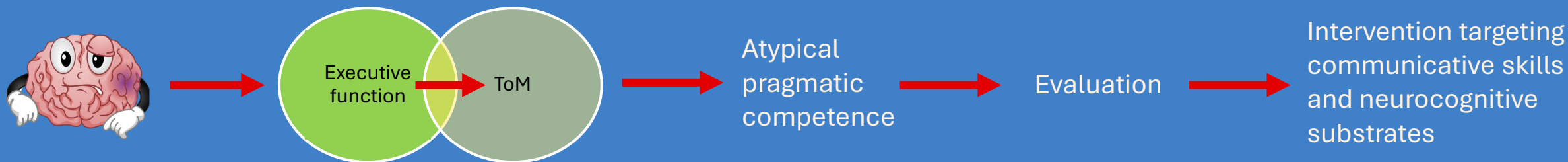
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all the communication modalities assessed by the ADACO, that is, linguistic, extralinguistic, paralinguistic, and social appropriateness abilities. The follow-up showed that the improvement of patients persists after 3 months from the end of the training. **Conclusions:** The results suggest that the CPT program is efficacious in improving communicative-pragmatic abilities in individuals with TBI, and that improvements at this level are still detectable even in chronic patients years after the injury. **Key words:** cognitive, communication, pragmatics, training, traumatic brain injury

Summary

- **Pragmatics is the study of language use in context, and how context contributes to meaning.**
 - Speech acts (with illocutionary force)
 - Cooperative principle
 - Implicitness
 - Conversational implicatures
- **Understanding of language processing in the brain has changed**
 - Semantic and pragmatic processing, while somewhat lateralized, involve wide bilateral brain networks



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