

# A Critical Analysis of the Argumentative Theory of Reasoning:

## Caveats from the Evolution of Human Communication

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# Introduction

- ▶ Hugo Mercier and Dan Sperber
- ▶ Function of reasoning: not epistemic, but social
- ▶ Argumentative theory of reasoning:  
the function of reasoning is to produce and evaluate arguments

Mercier and Sperber (2011, p. 60)

"Reasoning has evolved and persisted mainly because it makes human communication more effective and advantageous."

- 1 The stability of communication
- 2 The argumentative theory of reasoning
- 3 Human communication and cooperation
- 4 Criticizing the ATR
- 5 Conclusions

# The stability of communication



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# The evolutionary arms race

insert flowchart with four steps, including epistemic vigilance (which you'll spend some extra time on

Sperber (2001), "An Evolutionary Perspective on Testimony and Argumentation"

Sperber et al. (2010), "Epistemic vigilance"



# The argumentative theory of reasoning

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reasoning → argumentation



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reasoning → argumentation → communication

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reasoning → argumentation → communication → cooperation

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reasoning → argumentation → communication → cooperation → survival

- ▶ Communication facilitates cooperation
- ▶ What makes cooperation evolutionarily advantageous?
  - ▶ Protection against predation
  - ▶ Hunting: high risk, high reward
  - ▶ Shared labor in gathering
  - ▶ Cooperative breeding
- ▶ How did human cooperation evolve?
  - ▶ Obligate collaborators in gathering food
  - ▶ Emergence of tolerance and trust
  - ▶ Sophistication of collaborative skills
  - ▶ Mutual expectations become norms

- ▶ ATR is disconnected from broader context
- ▶ Cooperative function of communication
- ▶ Function of communication according to M&S:
  - ▶ For sender: causing 'desirable effects'
  - ▶ For receiver: gaining information
- ▶ Underspecified from an evolutionary perspective
- ▶ Metatheoretical issues: vagueness in terminology and details

# Conclusions

- ▶ Intuitively attractive idea
- ▶ Theory is not cutting it

# Selected bibliography



Mercier, H. and D. Sperber (2011). “Why do humans reason? Arguments for an argumentative theory”. In: *Behavioral and Brain Sciences* 34.2, pp. 57–74.



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Tomasello, M. (2009). *Why we cooperate*. MIT Press.