

A Critical Analysis of the Argumentative Theory of Reasoning:

Caveats from the Evolution of Human Communication

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- ▶ Hugo Mercier and Dan Sperber
- ▶ Classically: function of reasoning is epistemic
- ▶ **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."

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- ▶ 'Function' in evolution
 - ▶ Survival value

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

The stability of communication



The stability of communication



The stability of communication



The stability of communication



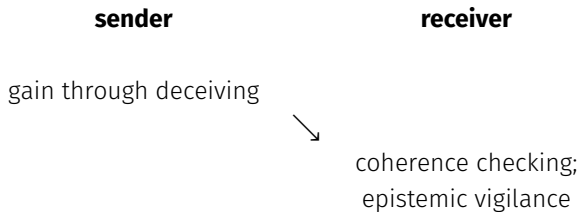
The evolutionary arms race

sender

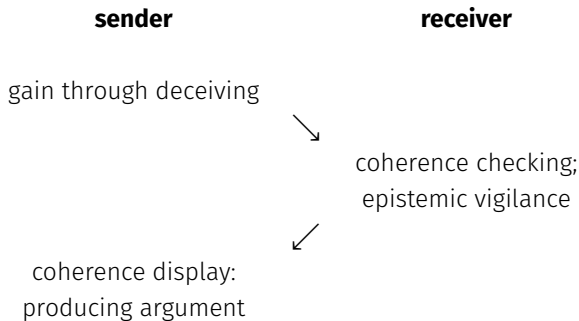
receiver

gain through deceiving

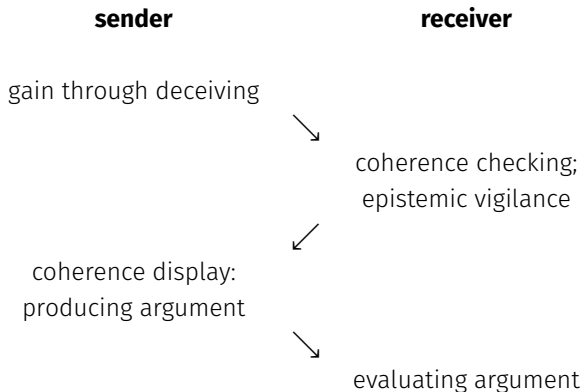
The evolutionary arms race



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The evolutionary arms race



The argumentative theory of reasoning

Mercier and Sperber (2011)

- 1 Humans depend on cooperation; communication is crucial for this
- 2 Communication must be advantageous for both senders and receivers
- 3 It is advantageous to deceive, and disadvantageous to be deceived

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 - ▶ Production and evaluation of arguments is facilitated by reasoning

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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

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reasoning → argumentation → communication → cooperation → survival

- ▶ Empirical support
 - ▶ Reasoning performance in argumentative settings
 - ▶ Explanation of confirmation bias and motivated reasoning

- ▶ Michael Tomasello
- ▶ Communication facilitates cooperation
- ▶ Function of cooperation
 - ▶ Protection against predation
 - ▶ Food sharing and shared labor in hunting and gathering
 - ▶ Cooperative breeding
- ▶ Evolution of human cooperation
 - ▶ Obligate collaborators in gathering food
 - ▶ Emergence of tolerance and trust
 - ▶ Sophistication of collaborative skills → communication
 - ▶ 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' → deception
 - ▶ For receiver: gaining information
- ▶ Underspecified from an evolutionary perspective
- ▶ Metatheoretical issues: vagueness in terminology and details

Selected bibliography

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