

# Employing overlaps between epistemic and moral values to prevent scientific error

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## Introduction

### Cognitive vs. contextual values

Value freedom, value neutrality, value ladenness

Are cognitive and contextual values completely independent? No (Longino, Dupre).

**Broader project: investigating the cognitive/contextual values distinction from a psychological perspective - rationality and morality.**

Sometimes the boundaries between the two are blurred (Stahl et al.).

### 'Moralized rationality' (Stahl et al.)

Rationality as (a) personally important; (b) a moral desideratum

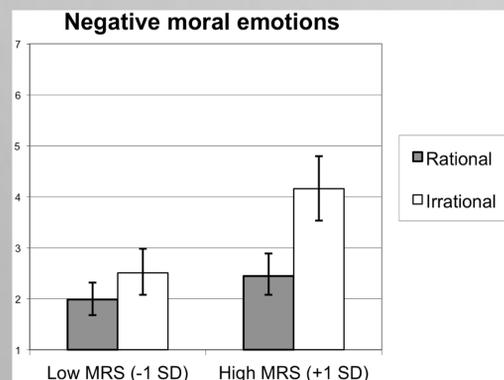
Respondents who moralize rationality (b above) view:

- The use of logical and empirical evidence as morally virtuous;
- The use of less reliable methods as morally vicious.

'It is a moral imperative that people can justify their beliefs using rational arguments and evidence' (Stahl et al. 2016: 10) – Participants who moralize rationality: Yes.

Is it because of the consequences? No – consequentialism screened off.

**Philosophical viewpoint: Participants conflate between epistemic and moral desiderata.**



Stahl, T., Zaal, M., Skitka, L. 2016: 25.

## Question 1: On what basis do people conflate the epistemic and the moral?

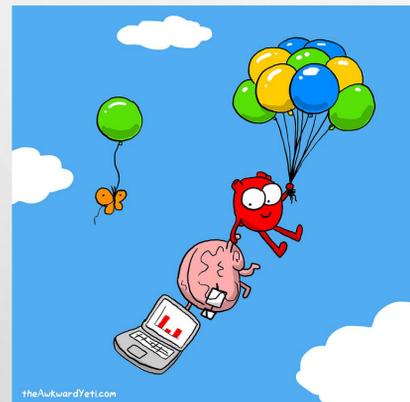
**a) Emotions** - reactions to epistemic value (Thagard).

Philosophy of science context: positive emotions accompanying a theory with high explanatory power.

Negative emotions accompanying error, or use of unreliable methods?

Cf. Ståhl et al: participants who moralize rationality express disgust when judging other people's employment of irrational methods.

**b) Normativity** – there are normative dimensions to both epistemic and moral judgments.



## Question 2: How can these common points be employed to prevent scientific error?

### Moralized rationality in scientific context

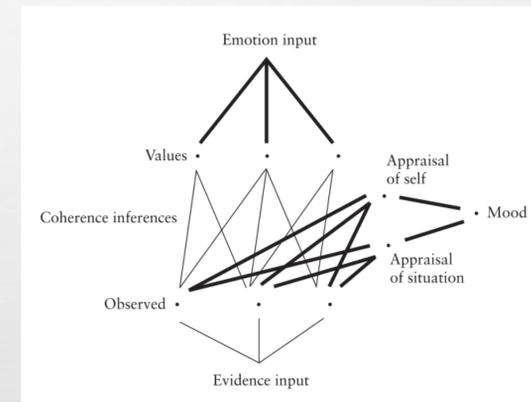
**Would scientists tend to moralize rationality?** Empirically testable/Psychological project.

Rationality - (a) personally important; (b) a moral desideratum + (c) professional desideratum?

Moral importance to – (i) scientific methods; (ii) consequences of using/misusing the scientific methods.

**Cold cognition** (problem solving, reasoning) vs. **Hot cognition** (motivation) (Thagard)

Example: misrepresenting facts in a review (Mojon-Azzi & Mojon) – misconduct vs. 'honest error'. Ethical aspect to both?



Thagard 2008: 58.

Scientists should avoid data distortion and fabrication, or rejecting certain results only because they contradict their hypotheses.

Epistemic grounds - tracing the truth.

Moral grounds - duties towards the scientific community, consequences for the public.

Motivation to tailor the data/evidence to fit one's hypotheses.

## Conclusions

- Moral and epistemic values may overlap insofar as they are normative, and are often accompanied by emotions as reactions to value.
- Hot cognition issues can be addressed from the perspective of the epistemic/moral values overlaps.
- To the extent there is a moral aspect to rationality, the overlaps may work to address both unintentional errors and scientific misconduct.
- Further avenue for psychological research on perceptions of epistemic and moral values among scientists.

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