Some “Classic” Shots @ *R*

Selmer Bringsjord

Are Humans Rational?

9/5/19

Selmer.Bringsjord@gmail.com

With deep gratitude to P. Johnson-Laird.

The Balderdash that is *Humans 3.0: The Upgrading of the Species*

Selmer Bringsjord
Sept 25 2019, 12 noon
RPI: Sage 4101
(lunch provided)

Here's an accurate encapsulation, put declaratively, of the book (H3.0) in question:

As a matter of mathematics, religious belief will disappear. Work will be obsolete, but economic well-being will be maximally high across Earth's human population; this will be enabled by AI toiling for us. Science will explain everything, including discovering the "patterns" that are us. With these patterns in our hands, we will be able to repeatedly "upload" to the physical substrate of our choosing, and thereby live forever. Then, by 2045, The Singularity will occur, the moment in time when machine intelligence exceeds human intelligence, and immediately thereafter explodes to higher and higher levels that infinitely exceed our own (relatively speaking) rodent-level one. Conveniently, we will merge with the machines so as to dodge being destroyed by them, and this "hybrid human-machine intelligence" will busy itself with [yada yada yada].

Unfortunately for Nowak (2015), author of H3.0, there is a slight problem: viz., every single claim here is but balderdash, at best. In this talk, I patiently explain this diagnosis, one bound, I know, to be emotionally disturbing to those who take such claptrap seriously.

The Balderdash that is *Humans 3.0: The Upgrading of the Species*

Selmer Bringsjord
Nov 11 2019, 7pm
RPI; Room: Sage 3303
public invited

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First: “Sosan” Attack on My Anchoring Rationality to Logic/Mathematics …

ERNEST SOSA

ARE HUMANS RATIONAL?

1.

A stream of experimental results has put in doubt the traditional conception of man as the rational animal. The mistakes people make are said to be more than just occasional and superficial. They are said to be systematic, and as deep as misapplying modus ponens in propositional logic and the conjunction rule in probability theory.[1]

Some have tried to explain away the apparent mistakes as deriving from misinterpreted instructions. Thus people may be assessing not which proposition is likelier in a mere probabilistic sense, but rather which proposition is more credible or plausible. And if the judgments do concern credibility or plausibility rather than bare statistical probability, then people may be guided by considerations of comprehensive coherence; which would help explain their judgments without violating the conjunction rule or any other rule owed to probability theory. As for the apparently wrong choices concerning which cards must be turned over in the selection task, these may stem from interpreting the conditional involved as subjunctive rather than material, and interpreting "testing" as "obtaining evidence relevant to the truth or falsity of that conditional." That would account for many of the choices people make, while entailing no clash with modus ponens.

Such attempts to explain away the experimental results attain at best limited success, however, since too often there remains a residue apparently resistant to any such treatment. But what do these resistant results really show? What exactly is rationality and just how do the results show us to fall short of it?

2.

People are said to be rational, if and only if, performance errors aside, they follow appropriate rules of reason derived from formal sciences such as logic and probability theory. That is to say, to be rational is to have within one's competence correct rules of reasoning appropriately based on the relevant formal sciences.[2]

To so restrict rationality gives it too narrow a focus, however, since in harboring a certain belief one might fall short of rationality in two main ways, at most one of which fits within so narrow a focus. First, one might believe in a way contrary to how one ought believe. Thus one might disbelieve what one ought to believe, or

K. Korta et al. (eds.), Cognition, Agency and Rationality, 1-8.

believe what one ought to disbelieve. That is one way to fall short. But there is also a second way: namely, to believe where one ought to withhold both belief and disbelief. And it is not at all easy to see how the rules that would counsel withholding in given circumstances might relate to theorems of logic or probability. Someone might arbitrarily believe that the stars are even in number, a clear failure of rationality. What rule deriving from logic or probability rules this out? The rule that if you assess the probability of something at 0.5 then you should not believe it? Among the problems with this, the following deserves special mention: what rules out that our versatile believer just assign his favored proposition a probability to suit, say 0.9? Is there a principle deriving from logic or probability that would prohibit this?

my best orientation rules this out!

The "rule" that $B^k\phi$ is rational only if $\exists\Phi\ \Phi \vdash \phi \wedge B^k\Phi$. This is "in" math!

Moreover, one's level of rationality is revealed by one's belief management not only in the armchair but also in the marketplace, the law court, and the laboratory. We still focus here on "theoretical" (belief-management, epistemic) rationality; we still leave aside the practical rationality involved in the acquisition, retention, and pursuit of ends. Even having thus narrowed our focus, we still find that someone who believes something crazy in a way that is either unfounded, or founded just on wishful thinking, or superstition, or the like, would fall short of rationality, in a straightforward and natural use of the term; they would fall short of theoretical, epistemic rationality.

To focus properly on the main issues of human rationality raised by our selected psychological literature, however, we must focus even more narrowly, more narrowly than might be suggested by our most common concepts of rationality. We must first narrow our focus away from the practical rationality of managing one's objectives and their pursuit, and towards the theoretical rationality of belief management. But we must focus more narrowly yet, to exercises of "pure reason." And even here we narrow our focus even further, to the implications for one's rationality that derive from injunctions to believe, and from prohibitions that derive from injunctions to disbelieve (to believe the opposite). So we focus on the irrationality of failing to believe that everything is self-identical, for example, and on the irrationality of believing that something is both material and not material, and the like. But we leave aside the irrationality of believing when one ought to withhold, in cases where this derives from no injunction to disbelieve (not even upon considering the proposition in question). Thus we leave aside the irrationality of believing arbitrarily that the stars are even in number, and the like.

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Therefore:

It’s unacceptable to define rationality in this logic/math-based manner.

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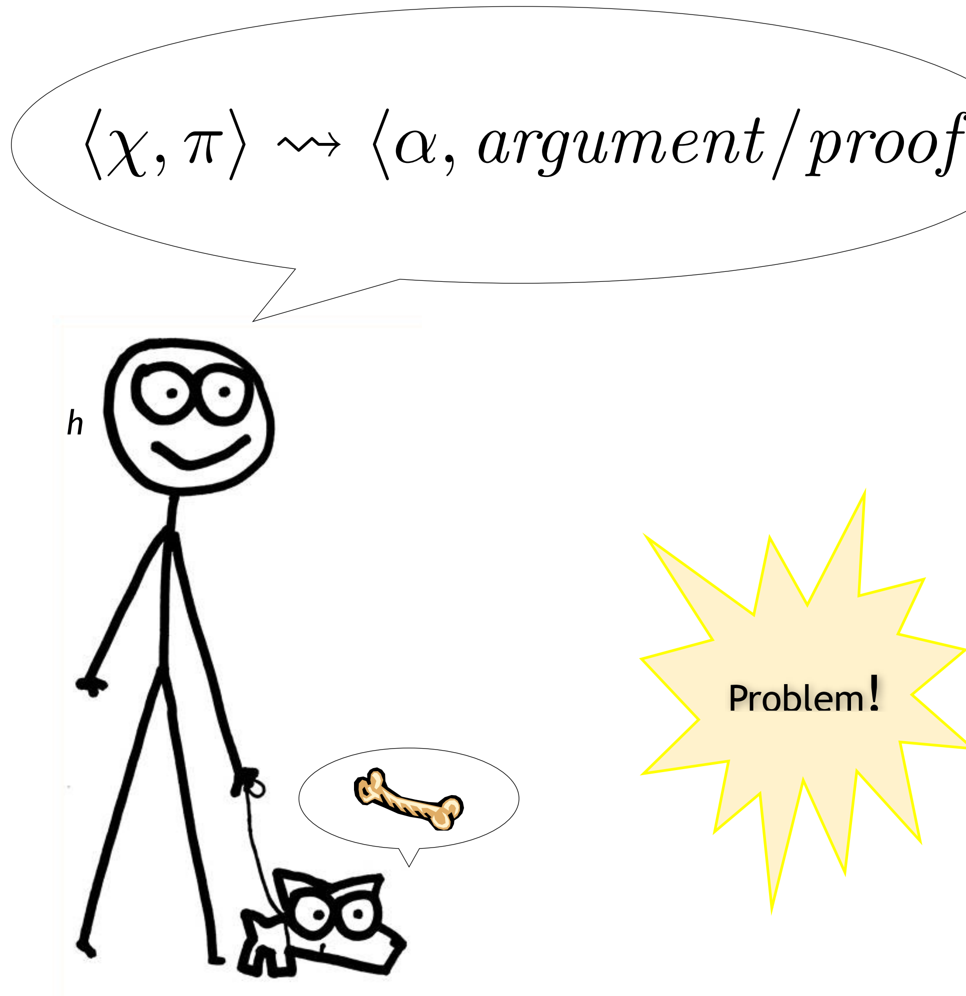
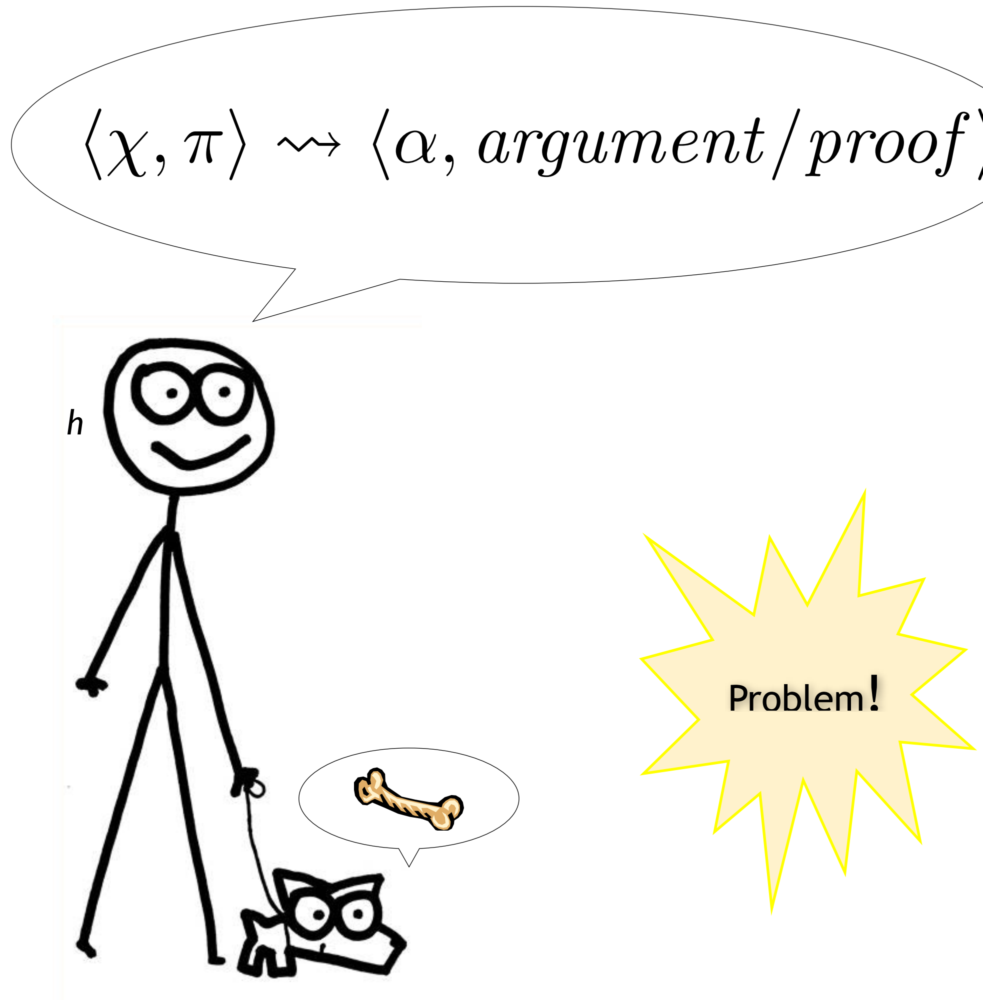


$\langle \chi, \pi \rangle \rightsquigarrow \langle \alpha, argument/proof \rangle$
h
Problem!

Because Jones would not only need to answer "Are the number of stars even or odd?" — he needs to have a sound argument or proof for this answer!



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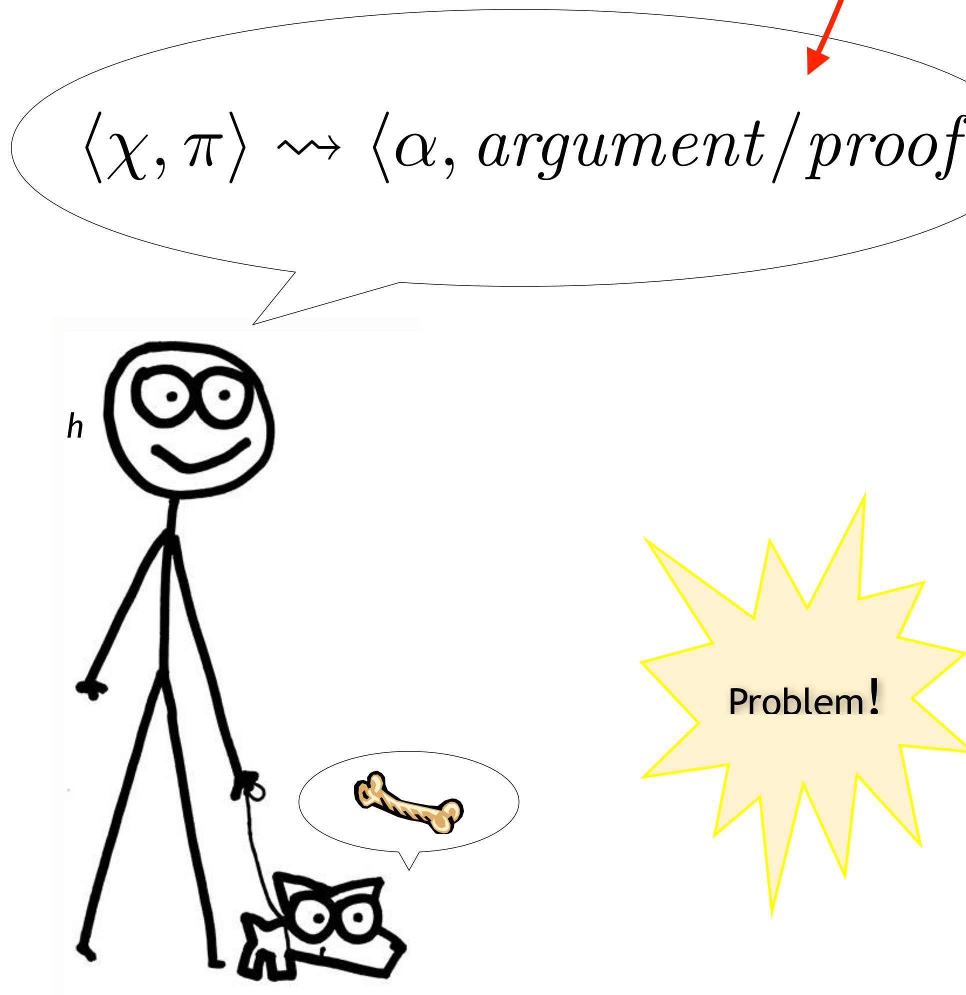
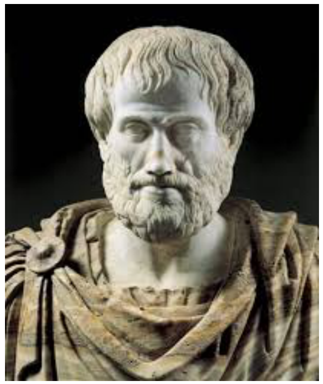


Now, Some "Classic" Shots @ Proponents of $\mathcal{R}$-ish Claims



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But humans *can't* solve the problems in question.

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Sorry Selmer & company, your thesis $\mathcal{R}$ is false.

Wason Selection Task

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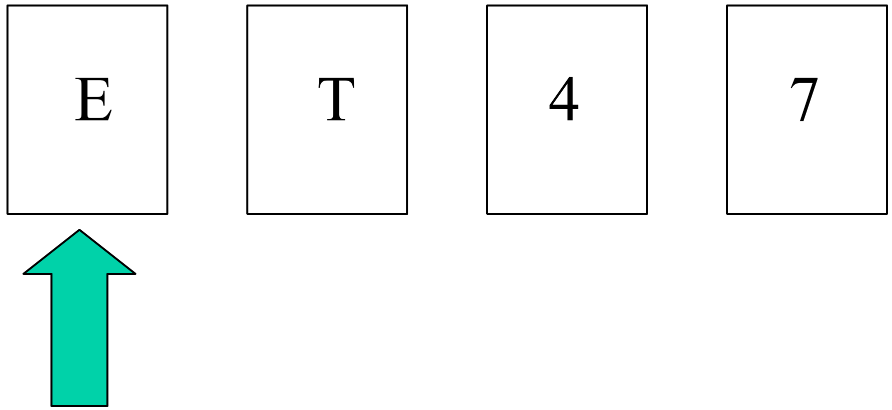
Suppose I claim that the following rule is true.

> If a card has a vowel on one side, it has an even number on the other side.

Which card or cards should you turn over in order to try to decide whether the rule is true or false?

Wason Selection Task



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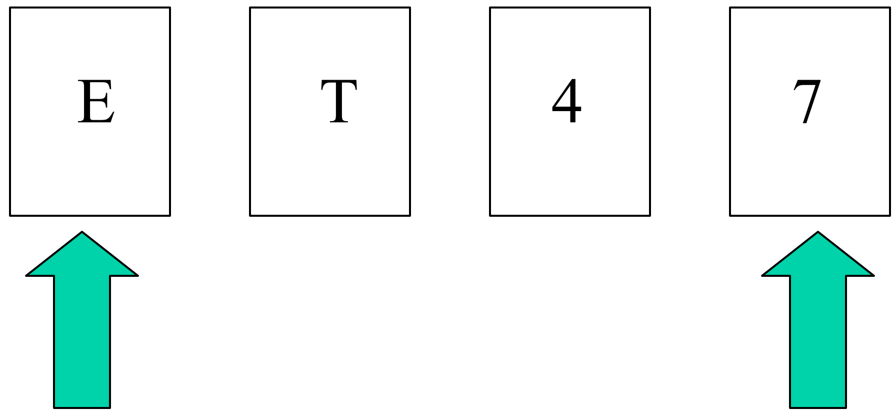

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"NYS 1"

Given the statements

$\neg a \vee \neg b$

b

$c \rightarrow a$

which one of the following statements must also be true?

c

$\neg b$

$\neg c$

h

a

none of the above

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“NYS 2”

Which one of the following statements is logically equivalent to the following statement: “If you are not part of the solution, then you are part of the problem.”

If you are part of the solution, then you are not part of the problem.

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"NYS 3"

Given the statements

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$c \rightarrow a$

$\neg a \vee b$

$b \rightarrow d$

$\neg(d \vee e)$

which one of the following statements must also be true?

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e

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$\neg a$

all of the above

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The Original King-Ace

Suppose that the following premise is true:

> If there is a king in the hand, then there is an ace in the hand, or else if there isn't a king in the hand, then there is an ace.

What can you infer from this premise?

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In fact, what you *can* infer is that there *isn't* an ace in the hand!

King-Ace 2

Suppose that the following premise is true:

If there is a king in the hand, then there is an ace in the hand; or if there isn't a king in the hand, then there is an ace; but not both of these if-then statements are true.

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Refutation of: Attack on $\mathcal{R}$

If humans are as described in this thesis, then they can solve the forthcoming problems.

But humans *can't* solve the problems in question.

Therefore:

Sorry Selmer & company, your thesis $\mathcal{R}$ is false.

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If humans are as described in this thesis, then they can solve the forthcoming problems. FALSE

If humans are as described in *R*, then humans can, *given sufficient training, etc.*, eventually solve the problems in question.

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If humans are as described in *R*, then humans can, *given sufficient training, etc.*, eventually solve the problems in question.

But humans *can't* solve the problems in question. FALSE

Some humans can't, *at present*, solve the problems in question.

Therefore:
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