

## Bias from the Non-Mathematical Nature of the Human Brain

This article is part of a [multi-part series](#) on human misjudgment by Phil Ordway, managing principal of [Anabatic Investment Partners](#).

Bias from the non-mathematical nature of the human brain in its natural state as it deals with probabilities employing crude heuristics, and is often misled by mere contrast, a tendency to overweigh conveniently available information and other psychologically misrouted thinking tendencies on this list. When the brain should be using the simple probability mathematics of Fermat and Pascal applied to all reasonably obtainable and correctly weighted items of information that are of value in predicting outcomes.

“The right way to think is the way Zeckhauser plays bridge. And your brain doesn’t naturally know how to think the way Zeckhauser knows how to play bridge.” -Charlie Munger

### Availability

“Now, you notice I put in that availability thing, and there I’m mimicking some very eminent psychologists Kahneman, Tversky, who raised the idea of availability to a whole heuristic of misjudgment. And they are very substantially right. Nonetheless, even though I recognize that and applaud Tversky and Kahneman, I don’t like it for my personal system except as part of a greater sub-system, which is you’ve got to think the way Zeckhauser plays bridge. And it isn’t just the lack of availability that distorts your judgment. All the things on this list distort judgment. And I want to train myself to kind of mentally run down the list instead of just jumping on availability. So that’s why I state it the way I do. In a sense these psychological tendencies make things unavailable, because if you quickly jump to one thing, and then because you jumped to it the consistency and commitment tendency makes you lock in, boom, that’s error number one. Or if something is very vivid, which I’m going to come to next, that will really pound in. And the reason that the thing that really matters is now unavailable and what’s extra-vivid wins is, I mean, the extra vividness creates the unavailability. So I think it’s much better to have a whole list of things ... than it is just to jump on one factor.”

Examples include:

- Coke
- John Gutfreund and Salomon Brothers (also: **reciprocation, base rate, vengeance**)
- See’s Candy cashiers stealing from the till – consider the base rate (“what Tversky and Kahneman call baseline information”)
- Serpico – allowing corruption and terrible behavior to spread is evil
- Vengeance – don’t chase the last ounce of vengeance, or any vengeance (“I don’t think vengeance is much good.”)

### Update

Munger added “**Availability-Misweighing Tendency**” as its own category in the update, along with his much expanded thoughts.

- “When I’m not near the girl I love, I love the girl I’m near.”
- “Man’s imperfect, limited-capacity brain easily drifts into working with what’s easily available to it. And the brain can’t use what it can’t remember or what it is blocked from recognizing because it is heavily influenced by one or more psychological tendencies bearing strongly on it. ”
- Antidotes: Darwin’s search for disconfirming evidence; “emphasize factors that don’t produce reams of easily available numbers”; “find some skeptical, articulate people with far-reaching minds”
- Use vivid images and availability to your advantage in persuasion or improving your own memory.

“We tend to judge the probability of an event by the ease with which we can call it to mind.” — Danny Kahneman

There is now a treasure trove of behavioral economic work that is widely accessible, and Kahneman and Tversky were among the pioneers. Munger even cited their work in the mid-1990s before it had achieved such wide acclaim.

“Nothing in life is as important as you think it is when you are thinking about it.”  
— Danny Kahneman