

Three Prediction Market Myths

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Summary

I discuss three myths about prediction markets: that they are a predictive tool (when they truly are a meta-tool), that optimal accuracy implies the plurality is inevitable (it does not), and that non-traders can disagree with the current market price (when in fact they have only underestimated their ignorance).

Myth 1 – “Just Another Tool”

Myth: “Prediction markets are just one forecasting tool, with strengths and weaknesses that make them good at some forecasts and bad at other forecasts. We need to consider the results of several tools to build an optimal forecast.”

Fact: Prediction markets integrate all available tools, using the advantages (but ignoring the disadvantages) of each tool. If transaction costs are low, it is a logical requirement that PMs produce the single most accurate integration of all existing human knowledge.

Observe the following figures, illustrating exogenous tools as simple circles, and a ‘meta-tool’ prediction market as a reactive shape bending to incorporate the best sources of evidence.

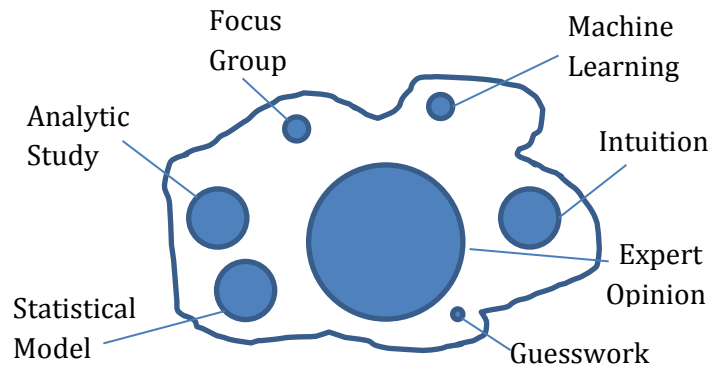


Figure 1. The PM Amoeba: not one tool but a synthesis of tools.

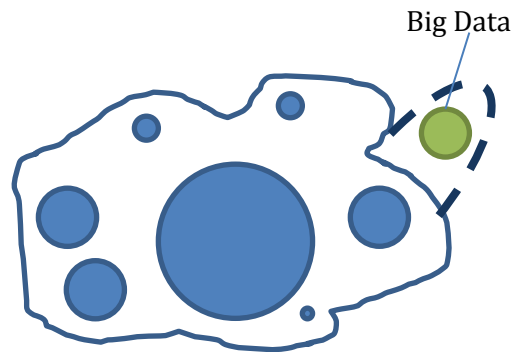


Figure 2. A new predictive tool is invented (ex 'big data'). As traders exploit the benefits for profit, the marginal benefits of the technique are absorbed by the PM Amoeba.

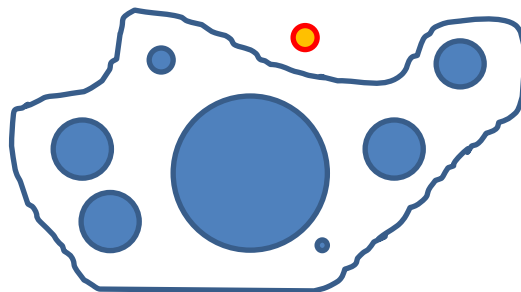


Figure 3. An existing technique no longer contributes meaningfully to this particular forecast, possibly because it is redundant, obsolete, or unacceptably biased. As traders stop using it, it becomes excluded from the PM Amoeba.

Myth 2 – “Inaccuracy”

Myth: “Once a prediction market somewhere was predicting that something would happen, and it didn’t happen, therefore we should never use prediction markets.”

Fact: Prediction markets are the most accurate representation of all available knowledge about the future, a future in which unlikely events can and will happen.

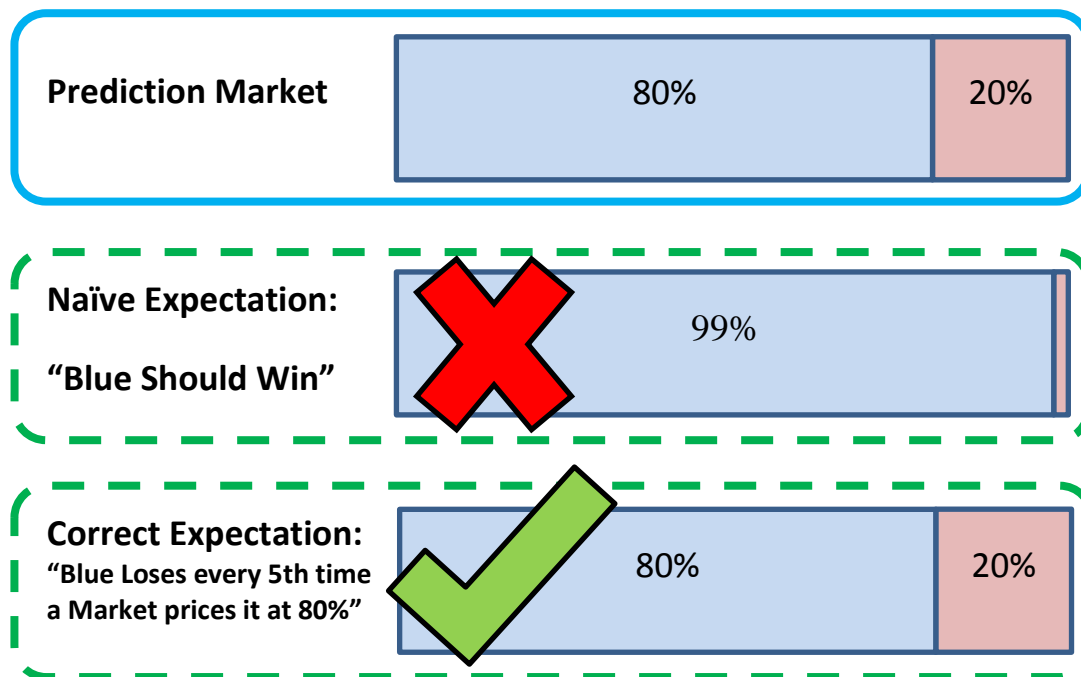


Figure 4. Three probability estimates (rounded rectangles), a prediction market (light blue) and two interpretations (dashed green). This author has observed many critics (and champions) of prediction markets ascribe a ‘magical inevitability’ to any state trading above 50%. The red X indicates an incorrect expectation whereas the green check indicates the correct expectation.

Myth 3 – “Believing” the Price is Wrong

Myth: “I know the current price is wrong, but I prefer not to trade (for X reason).”

Fact: Humans have almost no ability to accurately explain their own decisions.¹²³⁴⁵ ‘Making excuses’ can be more comfortable than admitting the truth: that one does not have meaningful knowledge to contribute. Individuals who are knowledgeable but averse to trading can partner with an uninformed trader for mutual profit.

	Knowledgeable	Ignorant
Aware	Type: “Expert” Talks: Yes, insightful. Bets: Should (and will).	Type: “Student” Talks: No, listens instead. Bets: Shouldn’t (and won’t).
Unaware	Type: “Fearful” Talks: Unreliable source of info. Bets: Should (but won’t).	Type: “Loser” Talks: Hypocrisy or nonsense. Bets: Shouldn’t (but will)

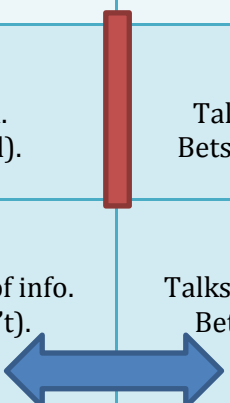


Figure 5. A table partitioning the agents of a Market (traders, onlookers, commentators) into types based on their personal knowledge of the outcome (x-axis) and level of awareness of that knowledge (y-axis). Individuals with high awareness will know their location in the table (and trading strategy), but those with low awareness will be unable to determine their location (arrows), and are likely to also be ‘meta-unaware’ (unable to determine if they are Aware or Unaware).

¹ <http://www.youtube.com/watch?v=Ntnua6TRue4> (emphasis 5:53)

² http://en.wikipedia.org/wiki/Introspection_illusion

³ <ftp://ftp.gate.cnrs.fr/RePEc/2012/1216.pdf>

⁴ <http://www.overcomingbias.com/2013/05/do-you-want-to-be-honest.html>

⁵ <http://www.overcomingbias.com/2010/03/homo-hipocritus.html>