

THE COURTIERS OF CONFUSION: A REPLY TO WYSOCKI AND BLOCK

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Fecha de recepción: 18 de febrero de 2021

Fecha de aceptación: 4 de julio de 2022

Resumen: Igor Wysocki y Walter Block han hecho una crítica a mi definición subjetiva de la probabilidad. En este artículo, hago una exposición detallada de la crítica errónea de Wysocki y Block. Me centro en la incoherencia lógica de su argumento, así como en la inconsistencia de su argumento con las propias ideas de Ludwig von Mises sobre la probabilidad. También describo cómo Wysocki y Block han construido su argumento sobre una visión errónea de lo que creen los subjetivistas, así como una visión errónea de lo que sostenían los hermanos von Mises. Así, sostengo que Wysocki y Block no han logrado redimir el enfoque de Ludwig von Mises sobre la probabilidad.

Palabras clave: Probabilidad subjetiva; filosofía de la probabilidad; frecuencia relativa; Ludwig von Mises; Richard von Mises.

Clasificación JEL: C11; C19.

Abstract: Igor Wysocki and Walter Block have offered a critique of my subjective definition for probability. In this article, I offer a detailed exposition of Wysocki and Block's mistaken critique. I focus on the logical incoherence of their argument, as well as the inconsistency of their argument with Ludwig von Mises's own ideas about probability. I also describe how Wysocki and Block have built their argument on a mistaken view of what subjectivists believe as well as a mistaken view of what the brothers von Mises held. I thus argue that

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Wysocki and Block have failed to redeem Ludwig von Mises's approach to probability.

Keywords: Subjective probability; philosophy of probability; relative frequency; Ludwig von Mises; Richard von Mises.

JEL Classification: C11; C19.

INTRODUCTION

When I first started writing articles concerning the philosophy of probability over a decade ago, my intention was to prod the Austrian community into reevaluating the brothers von Mises' bizarre theories of probability¹. I sincerely believed at the time that Austrians, of all people, would be able to see the theories for what they really are, and would join me in tossing them out in favor of a true, logically defensible theory of probability. It never would have occurred to me to think that, over a decade after writing my first article on the topic, even a single Austrian would still be championing what is, at root, *Richard von Mises'* weirdo positivistic theory of probability. It was with great sadness, therefore, that I stumbled by accident onto an article written by Igor Wysocki and Walter Block defending the brothers von Mises' theories of probability over a decade after I first broached the topic².

I am going to show in this article that Wysocki and Block fail spectacularly and embarrassingly in their attempt to rehabilitate the brothers von Mises' theories, but it is important to first take

¹ For my original article on the topic, see Mark Crovelli, "On the Possibility of Assigning Probabilities to Singular Cases, or: Probability is Subjective Too!", *Libertarian Papers* 1, 26. (2009). See also, Mark Crovelli, "Has David Howden Vindicated Richard von Mises's Definition of Probability?", *Libertarian Papers* 1, 44, (2009), Mark Crovelli, "A Challenge to Ludwig von Mises's Theory of Probability," *Libertarian Papers* 2, 23. (2010), Mark Crovelli, "Can Probability Be Subjective and Objective at the Same Time? A Reply to Arnold Baise," *Libertarian Papers* 3, 28, (2011), and Mark Crovelli, "All Probabilistic Methods Assume a Subjective Definition of Probability." *Libertarian Papers*. 4(1): 163-174, (2012).

² Igor Wysocki and Walter Block, "Crovelli on Probability: A Critique" *Procesos de Mercado* Vol. XVII, n.º 2, Fall 2020, pp. 245-272.

note of the imagery that the two authors employ in the opening of their article. They refer to Ludwig von Mises as their “emperor” and they refer to themselves as Ludwig von Mises’ “courtiers.”³ And of course they refer to my articles as having “launched a denunciation of [L. von Mises].” I think this imagery of imperial vaunting perfectly illustrates why this bizarre theory of probability refuses to die in the Austrian world. If one starts from the assumption that Ludwig von Mises is the “emperor,” and the scholar is merely the “courtier” to this Great Man, then how can one possibly evaluate the Great Man’s writings dispassionately and rationally? And what can be said about the imagery saved for me, the miserable wretch who dared to “denounce the emperor?” I “denounced” Ludwig von Mises because I think he shouldn’t have adopted his brother’s weird, indeterministic and positivist views about probability? This is some dark authoritarian stuff!

It is extremely unfortunate that Ludwig von Mises chose to write about probability in *Human Action*. It does not materially add to his otherwise brilliant book, or any of his other works. It is also unfortunate that Rothbard and Hoppe both picked up this bizarre theory along the way and lent the weight of their names to it. It is now very, very difficult for the scholars who come after this slate of admittedly brilliant thinkers to question how they all could have gotten probability so wrong.

But they did get it wrong. I can only hope that future Austrians will not follow Wysocki and Block in vaunting Ludwig von Mises’ ideas in this way, and allow their thinking to be clouded by his eminent place in Austrian economics. He was no such “emperor,” his thinking was not infallible, and I think he would have found this fallacious appeal to his authority completely revolting. The Austrian School is dead if we start worshiping men rather than perpetually submitting *all* ideas to the test of our reason. This definitely includes Ludwig and Richard von Mises’s bizarre ideas about probability.

With that out of the way, it’s time for me to dispatch with the “courtiers,” Wysocki and Block.

³ *Ibid.*, p. 245.

HAVE THE COURTIERS ACTUALLY READ CROVELLI OR THE BROTHERS VON MISES?

It is hard to know where to start with this strange and disjointed article. One gets the impression that Wysocki and Block have read neither my works nor those of the brothers von Mises. How else can we interpret this statement, for example:

“So, what is this author’s substantive criticism of Mises? Is it that since Mises is a subjectivist on some, many issues, he is logically inconsistent in not adopting this stance across the board, to wit, to probability? But why ever just because a person adopts a certain analytic tool to address one problem, must he utilize it for cases in which it patently does not apply? If all you have is a hammer, then every challenge starts to look like a nail, at least for Crovelli.”⁴

A more gross misstatement of my argument could not be made. Indeed, it’s hard to believe they could actually have read my articles on the topic. My argument is not that Ludwig von Mises ought always to have been a subjectivist in all fields, whatever that might even mean, but rather that his espousal of determinism *logically requires* him to adopt a subjective definition for probability. I was absolutely clear about this point:

“I have argued that the definition of probability inexorably depends upon the nature of the world, and that a deterministic world obliges us to adopt a subjective definition for probability. I have argued that Ludwig von Mises, too, ought to have adopted this definition for probability, because his deterministic epistemological, methodological and praxeological system demands such a definition. Ludwig von Mises did not adopt such a definition, although I have noted that he did not provide any general definition of probability at all.”⁵

⁴ *Ibid.*, p. 248

⁵ Crovelli, “A Challenge to Ludwig von Mises’s Theory of Probability,” p. 14. It is important to note that I am not the one who first made this important insight. Rather, it was the great I.J. Good who recognized the logical necessity of defining probability subjectively if the world is deterministic. See: I.J. Good, *Good Thinking: The Foundations of Probability and Its Applications*. (Minneapolis, Minn.: University of Minnesota Press, 1983), p. 447.

Even more concerning is that the courtiers do not apparently understand either of the von Mises brothers' theories about probability. For example, from the outset they claim to be defending Ludwig von Mises from my so-called "denunciations," and yet later on they themselves claim to have "cast doubt on time-invariant causality."⁶ The authors seem blithely unaware that Ludwig von Mises himself every bit as staunch a defender of time-invariant, causal determinism as I am:

"All things in the universe are interconnected, and all changes are the effects of powers inherent in things. No change occurs that would not be the necessary consequence of the preceding state. All facts are dependent upon and conditioned by their causes. No deviation from the necessary course of affairs is possible. *Eternal law regulates everything.*"⁷

And again elsewhere:

"It is impossible...for the human mind to think of any event as uncaused. The concepts of chance and contingency, if properly analyzed, do not refer ultimately to the course of events in the universe. They refer to human knowledge, prevision, and action. They have a praxeological, not an ontological connotation"⁸.

What we thus have here is a truly bizarre situation in which Wysocki and Block are claiming to be defending Ludwig von Mises from my "denunciations," when in actual fact they are defending the indeterministic ideas of Richard von Mises!⁹ To top

⁶ Wysocki & Block., *op cit.*, p. 268.

⁷ Mises, *Human Action*, p. 74. Emphasis mine.

⁸ *Ibid.*, p. 90. Emphasis added. On this, see also Ludwig von Mises *Theory and History* (Auburn, Ala.: Ludwig von Mises Institute, 1985), p. 74.

⁹ Or is it Frank Knight that they are defending since Knight is repeatedly mentioned rather than Richard von Mises? It's impossible to tell since the authors don't bother to explain how Frank Knight fits into their discussion, and they of course make no attempt to tell the reader how Frank Knight himself defined probability. The best they can muster by way of explanation for even citing Knight is, in a footnote, to assure us that, despite our understandable confusion, we can take their word that Misesian case probability and Knightian uncertainty are the same thing. One would think Ludwig von Mises would have cited Knight's views on probability rather than

off the sheer lunacy of the argument, the authors don't even bother to discuss Richard von Mises' indeterministic definition for probability, or try to argue that Ludwig was correct to adopt it, given his deterministic views.

This cavalier rejection of causal determinism of the very kind that Ludwig von Mises wrote about is absolutely mind blowing. Needless to say, by throwing out (or shall I use the word "denouncing"?) Ludwig's causal determinism and adopting the indeterminism of Richard von Mises and Mackie is to set oneself outside the princely court of Ludwig von Mises¹⁰. We have two confused courtiers from the Vienna Circle before us, not courtiers from the circle of Ludwig von Mises.

Most egregious of all, however, is that the courtiers appear to be unaware of another paper I have written concerning, *inter alia*, the distinction between *methods* for generating numerical probabilities and the *definition* for probability itself¹¹. Either the authors are unaware of this paper, which is hard to believe since it was published in the same place as my other papers, or they are willfully ignoring it, since it is not mentioned or cited as a reference. Either way, virtually their entire argument, such as it is, consists of a deliberate attempt to obfuscate and ignore the obvious difference between *methods* for generating numerical probabilities and the very *definition* of probability itself.

EMBARRASSING CONTRADICTIONS

One would think that in a 28 page article purporting to refute my definition for probability, one would take away a very clear

his brother's if this was the case, but I'm sure it's safe to just take Wysocki and Block's word for it. Wysocki & Block, *op cit.*, p. 249 ff.

¹⁰ Nevertheless, as I have argued in "All Probabilistic Methods Assume a Subjective Definition of Probability," (2012), even the relative frequency method for generating numerical probabilities must assume a causally deterministic world. So, even jumping into Richard von Mises' indeterministic camp doesn't absolve Wysocki and Block from the necessity of defining probability subjectively!

¹¹ Mark Crovelli, "All Probabilistic Methods Assume a Subjective Definition of Probability." *Libertarian Papers*, 4(1) (2012): 163-174.

understanding of what probability *is*, according to Wysocki and Block. Alas, such is not the case, and one does not walk away from the article with even an inkling of the definition for probability that the authors espouse. The authors insert two random definitions for probability at the beginning of the article, but then offer neither an explanation nor a defense of either. The first definition they give us, from Wolfram Mathworld, acknowledges the existence of subjective probability¹², while the second definition they offer us from the OED acknowledges the existence of a priori or classical methods for generating numerical probabilities¹³. Needless to say, neither of these definitions comport with Richard von Mises' extremely strict definition for probability, nor with Ludwig von Mises' own ideas about what probability is. Surely this is an odd way to "defend" Ludwig von Mises from my "denunciations," by citing definitions for probability that both brothers von Mises would have abhorred!

Even stranger, over the course of the article, the courtiers abandon the strict frequentist definition for numerical probability that the brothers von Mises espoused, and even admit to the possibility of assigning probabilities to singular events:

"We sympathetically interpret Crovelli's claim about the possibility of assigning probabilities to singular events. To do so, we resort to the so-called betting quotient. However, this author fails to offer any principle for assigning probabilities to singular events whatsoever."¹⁴

We have truly entered a bizarro world where down is up, and up is down. The authors previously claimed to be defending Ludwig von Mises, but here they are completely abandoning both von Mises brothers' frequentist denial of the possibility of assigning probabilities to singular events, while at the same time chiding me for not having elaborated non-frequentist methods to their satisfaction! A more confused "defense" of Ludwig von Mises can hardly be imagined!¹⁵

¹² Wysocki & Block, *op cit.*, pp. 245-246.

¹³ *Ibid.*, *loc cit.*

¹⁴ *Ibid.*, p. 247ff.

¹⁵ Nor can a more confused "rebuttal" to my arguments be imagined, since the authors are conceding the main point of most of my articles against Ludwig von

The reader will need to brace himself, because things only get stranger from here. Just two sentences after admitting to the possibility of assigning numerical probabilities to singular events, the authors then go on to say that it is possible to assign numerical probabilities to “risk,” but *not* to singular events:

“What matters to us is that when it comes to risk, assigning numerical values to a chance of the occurrence of an attribute in question is valid, whereas in the case of singular events it is not, and cannot be. We thus preserve the traditional distinction between risk and uncertainty”¹⁶.

The reader will be forgiven if his head is spinning. These contradictory sentences stand literally inches apart from one another on the same page. Even setting aside the embarrassing contradiction between these two statements, one would like to understand why the authors rely not on Ludwig von Mises’ ideas about probability, whom they claim to be defending, and instead rely on the ideas of Frank Knight. My articles are addressed to the problems presented by the definition of probability advanced by the von Mises brothers, not Frank Knight. It would be fine for the authors to cite Frank Knight if they are making a good faith effort to establish that Knight and Mises’ ideas are virtually identical. But the authors make absolutely no attempt to do so, failing even to cite Hans-Hermann Hoppe’s article on this very subject¹⁷, and utterly failing to explain their own logic for relying on Knight rather than either of the von Mises brothers.

A PROFOUND CONFUSION BETWEEN *METHOD* AND *DEFINITION*

The root cause of the courtiers’ embarrassing confusion here is that they do not seem to be aware of the critical difference between

Mises: namely, that numerical probabilities can indeed be legitimately applied to singular events!

¹⁶ Wysocki & Block, *op cit.*, p. 247.

¹⁷ Hans-Hermann Hoppe, “The Limits of Numerical Probability: Frank H. Knight and Ludwig von Mises and the Frequency Interpretation,” *The Quarterly Journal of Austrian Economics* Vol. 10, No. 1 (Spring 2007): 3-21.

methods for generating numerical probabilities and the very *definition* of probability itself. The relative frequency method for generating numerical probabilities is properly understood as just that: a *method*. The classical *method* for generating numerical probabilities, the a priori *method* for generating numerical probabilities and Bayesian *methods* for generating numerical probabilities are all *methods*. The von Mises brothers chose to say that all non-frequentist methods for generating numerical probabilities are illegitimate and nonsensical¹⁸, and that is the position Wysocki and Block also need to take if they are going to defend the ideas of their “emperor” against my “denunciations.” They do no such thing, however.

Equally importantly, the authors have a very perverse idea about what subjectivists like myself mean when we say that probability is a measure of subjective belief. We subjectivists do not claim that the relative frequency method is not useful for man, or that man should not utilize it. Quite the contrary, we say that if one confronts a problem that is amenable to running repeated trials, please do indeed use the frequency method! What we object to is the idea, vehemently propounded by the brothers von Mises, that if we can’t construct a “collective” or a “class” of events that we must toss up our hands and say that numerical probability can never be utilized. We object to saying that relative frequencies are some mystical physical property “in” dice or coins, while condemning every other non-frequentist method as absurd. We object to saying that, for example, if we have not run a virtually unlimited number of trials flipping a given coin, that we can never assign a numerical probability to the likelihood of tossing heads with that coin. This is simply a silly and dogmatic assertion on the von Mises’ part. It is *not* nonsensical for us to use the classical method, for example, and assume both sides have an equal likelihood of occurrence, and to utilize the axioms of probability on the number

¹⁸ Obviously, Richard von Mises was far more dogmatic and emphatic on this point, whereas Ludwig von Mises had a more nuanced view, but nevertheless both of them explicitly denounce any methods that do not involve constructing a “class” or “collective” of events from which one can derive relative frequencies of occurrence. On the difference between their views on this point see my “A Challenge to Ludwig von Mises’s Theory of Probability,” pp. 2-6.

we generate with the classical method¹⁹. In order to utilize Kolmogorov's axioms we only need a number between 0 and 1, after all, and the classical method generates this number just as well as the relative frequency method. And all of this is true for almost an infinite number of other scientific questions that do not involve "collectives" or "classes."

Bearing all of this in mind, one can see the grave misunderstanding of the issues involved on the part of Wysocki and Block. One of the main topics of their paper, for example, involves a straw man of their own making; namely, that subjectivists like me in some way reject the usefulness of probabilities generated with the relative frequency method²⁰. This is one of the most absurd claims that I have ever confronted regarding subjective probability. Of course we accept the usefulness of those probabilities--and the probabilities of other non-frequentist methods too! We do, of course, reject the idea that probabilities are real, objective physical properties "in" things, *but Ludwig von Mises himself also rejected this idea*. Recall his words from above:

"The concepts of chance and contingency, if properly analyzed, do not refer ultimately to the course of events in the universe. They refer to human knowledge, prevision, and action. They have a praxeological, not an ontological connotation."²¹

¹⁹ Ironically, Wysocki and Block also make use of the classical method in their paper: "We know with great exactitude, for example, all there is to be known about the odds of pulling a straight flush, or rolling a snake eyes. We know rather less about any given hand, or roll of the dice, except for the long-run probability of their occurring in the case of large numbers." Wysocki & Block, *op cit.*, pp. 249-250. They obviously don't know these things about drawing flushes and rolling snake eyes from running repeated trials of all the dice and decks of cards in the world, as the brothers von Mises would require of them. Rather, they know these things because they are dealing with the question analytically and a priori. As an aside, it is rather illuminating to note that proponents of the frequency definition for probability invariably refer to dice or coins and not playing cards in their examples. There is an obvious reason for this; namely, the idea of dealing poker hands an infinite number of times to calculate the relative frequency of drawing a flush is rather absurd on its face, no matter what Richard von Mises has to say on the matter.

²⁰ See part III of Wysocki & Block, *op cit.*, pp. 259-265.

²¹ Mises, *Human Action*, p. 90

A similar straw man is created in Part II of Wysocki and Block's paper, where they inexplicably attempt to argue that I, (and presumably all other subjectivists like myself), do not accept the axioms of probability as valid. Where they get this outlandish idea, I have no idea, because I certainly have never claimed such a thing and neither has any subjectivist I am aware of. Of course we accept the axioms of probability, and we also accept the use of the axioms on numerical probabilities derived from *all* of the methods for generating numerical probabilities! The axioms of probability do not require us to derive a number between 0 and 1 *only* utilizing the frequentist method; on the contrary, the axioms are completely agnostic about where the number came from.

Finally, as far as the "betting quotient" is concerned in Part II of their paper²², I heartily encourage Wysocki and Block to use it to generate non-frequentist numerical probabilities all day long! I have no idea why they think I would object to such a thing. I encourage the use of all methods for generating numerical probabilities, *when they can be rationally defended*, unlike Richard and Ludwig von Mises! Ludwig von Mises's self-proclaimed "courtiers," on the other hand, have a substantial self-contradiction on their hands in defending and utilizing this method, since Richard and Ludwig von Mises both proscribed it.

COURTIERIS OF THE VIENNA CIRCLE

The overriding concern of all of my papers has been to demonstrate that if all events in the world have antecedent causes of some sort, then we are obliged to adopt a subjective definition for probability. This is not my own insight, but rather I.J. Good's observation²³. If there is not randomness in the world itself, then the reason we cannot know with absolute certainty what will or will not occur in any given situation is due to our own ignorance of these time-invariant causes. When we resort to the methods of probability to deal with

²² See part II of Wysocki & Block, *op cit.*, pp. 250-259.

²³ I.J. Good, *Good Thinking: The Foundations of Probability and Its Applications*. (Minneapolis, Minn.: University of Minnesota Press, 1983), p. 447.

these uncertain situations, we are measuring something within ourselves when we calculate a numerical probability. Probability is thus a measure of our own uncertainty, not something in the world.

Throughout their paper, Wysocki and Block completely ignore this central thesis of all my papers. Instead, and contrary to the views of Ludwig von Mises himself, they opt to jettison causal determinism²⁴. Indeed, they toss Ludwig von Mises's explicit causal determinism out the window and embrace the indeterminism of Richard von Mises, Heisenberg, and the rest of the Vienna Circle. There is no ambiguity on this point:

"[O]nce we know that the world is basically governed by objective chances (propensities) and not by invariant causes, our empirically obtained frequencies can reflect those objective dispositions (propensities) in question!"

This sentence could literally have been written by Richard von Mises himself²⁵. And while Wysocki and Block may be thinking that in making this claim they are thereby defending the ideas of Ludwig von Mises as well, this actually just shows their utter ignorance of both Ludwig von Mises's ideas and the central issue up for debate between Ludwig von Mises and myself. For, Richard von Mises was only able to make claims about probability being "objective" and probability being a real "physical property" inherent in things *because he was an indeterminist* exactly like Heisenberg²⁶.

²⁴ Wysocki & Block, *op cit.*, pp. 266-268.

²⁵ *Ibid.*, p. 268. Compare the similarity of this statement to Richard von Mises himself: "The probability of a 6 is a physical property of a given die and is a property analogous to its mass, specific heat, or electrical resistance. Similarly, for a given pair of dice (including of course the total setup) the probability of a 'double 6' is a characteristic property, a physical constant belonging to the experiment as a whole and comparable with all its other physical properties." R. Von Mises, *Probability, Statistics and Truth*, (New York: Dover, 1981), p. 14.

²⁶ "The essential consequence of Heisenberg's considerations can be summarized by saying that the results of all measurements form collectives. In the realm of macrophysics the objects of measurement are themselves statistical conglomerates, such as the length of a ruler which is a mass of molecules in motion. The notion of an absolutely exact length measure has therefore obviously no meaning with respect to objects of this kind. In microphysics, where we are concerned with measurements on a single elementary particle, the inexactness is introduced by the statistical character of

Ludwig von Mises, on the other hand, was a *determinist*, so he would not and *logically could not* make this claim. And neither can the courtiers, Wysocki and Block, if they truly want to defend the ideas of their “emperor.”

Finally, Wysocki and Block do not appear to be aware of the fact that all of the methods for generating numerical probabilities must assume causal determinism in the world. This is the central thesis of my 2012 article — the article that Wysocki and Block do not cite in their paper²⁷. To utilize any of the methods for generating numerical probabilities, one must assume that the world is ordered in such a way that every event has antecedent and time-invariant causes. And, once again, if the world is deterministic, this necessarily implies that one must define probability subjectively. So, sadly for the courtiers, not even retreating into the loving and indeterministic arms of the Vienna Circle will extricate them from the necessity of defining probability subjectively.

CONCLUSION

This is usually the part of a paper where I would write something like: “In sum, here is why you should accept my argument for defining probability subjectively against Wysocki and Block’s argument for defining probability in some other way.” In this particular case, however, I honestly have no idea what Wysocki and Block think probability *is*. I mean that statement very sincerely. Having read the article several times, I am at a loss as to whether they side with me (since they outline a method for generating numerical probabilities in singular cases), or whether they side with Richard von Mises (since they defend indeterminism), or whether they are even proponents of Frank Knight’s views on probability. One would think that, since the heart of the disagreement between Ludwig von Mises and

the light quanta striking the particle during and through the very act of measuring. In both cases we are faced with the indeterministic nature of the problem as soon as we inquire more closely into the concrete conditions of the act of measuring.” *Ibid.*, p. 215.

²⁷ Mark Crovelli, “All Probabilistic Methods Assume a Subjective Definition of Probability,” (2012).

myself involves the definition of probability, that defining probability would be their primary aim--or at least their secondary aim over the course of 28 pages. But such is not the case. Hence, Wysocki and Block's attempts to defend Ludwig von Mises and undermine my subjective definition for probability have resulted in spectacular failure.

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