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## An Easy Refutation of Ramsey's Attacks on Keynes's relational, propositional logic for academicians

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### Abstract

*F P Ramsey, RB Braithwaite, and all of their many supporters over the last 103 years, never read Keynes's A Treatise on Probability. It is easy to show this simply by studying pp.4-6 of chapter I of the A Treatise on Probability and comparing Keynes's analysis to page 3 of Ramsey's 1922 review that was published in Cambridge Magazine and republished in 1989 in The British Journal for the Philosophy of Science. Pages 4-6 provide an excellent introduction to Keynes's formal analysis contained in Part II of the A Treatise on Probability.*

*All of Keynes's analysis is based on the work of G Boole. Consider Boole's basic, introductory statements in chapter I of his 1854 The Laws of Thought: "Instead, then, of saying that Logic is conversant with relations among things and relations among facts, we are permitted to say that it is concerned with relations among things and relations among propositions.... Among such relations I suppose to be included those which affirm or deny existence with respect to things, and those which affirm or deny truth with respect to propositions. Now let those things or those propositions among which relation is expressed be termed the elements of the propositions by which such relation is expressed. Proceeding from this definition, we may then say that the premises of any logical argument express given relations among certain elements, and that the conclusion must express an implied relation among those elements, or among a part of them, i.e. a relation implied by or inferentially involved in the premises... As the conclusion must express a relation among the whole or among a part of the elements involved in the premises, it is requisite that we should possess the means of eliminating those elements which we desire not to appear in the conclusion, and of determining the whole amount of relation implied by the premises among the elements which we wish to retain. Those elements which do not present themselves in the conclusion are, in the language of the common Logic, called middle terms; and the species of elimination exemplified in*

treatises on Logic consists in deducing from two propositions, containing a common element or middle term, a conclusion connecting the two remaining terms.”(Boole,1854 ,pp.7-8;underline and italics added). Now there is one conclusion that we can derive from Boole, which is that in an argument form, the conclusion must be related to the premises .Other terms besides related that one could use , would be the words relevant, similar or like .Keynes, in fact, uses all four terms -related ,like similar, and relevant.

It is impossible to deploy Boole’s relational, propositional logic in the case where the propositions, premises and conclusion, are unrelated, irrelevant, dissimilar or unlike each other. This is, however, exactly what Ramsey did .Ramsey presented a series of argument forms where the premises and conclusion are unrelated to each other, unlike each other, irrelevant to each other, or dissimilar to each other, so that it would be impossible to compare the premises and conclusion to each other.

Note that Keynes explicitly rejects this explicitly in 1921 by arguing that the premises and conclusion must be logically connected to each other (Keynes, *A Treatise on Probability*, p.5 ) or must always be comparable to each other (Keynes, *ibid.*, pp.137-138): “We can only be interested in our final results when they deal with actually existent and intelligible probabilities—for our object is, always, to compare one probability with another—and we are not incommoded, therefore, in our symbolic operations by the circumstance that sums and products do not exist between every pair of probabilities.” (Keynes,1921, pp.137-138). Ramsey does exactly the opposite. Ramsey chooses to deal with actually non existent and unintelligible probabilities so that it is impossible to compare one probability with another. Ramsey makes the absurd, idiotic, preposterous, and incomprehensible claim that Keynes’s logical theory of probability is based on propositions which are completely unrelated to each other. An example of this is C. Misak’s favorite, cited example taken from Ramsey’s 1922 review(Misak,2020,p.114) ,that “...My carpet is blue, Napoleon was a great general...” (Ramsey,1922,p.3) Bertrand Russell, unfortunately without explicitly identifying Ramsey by name in his 1922 review, gave the following nonsensical type of Ramsey example: “ $2+2 =4$ , Napoleon disliked poodles.” (Russell,1922,p.120,\*ft.). It is a great ,100 plus year mystery how thousands of economists, philosophers ,historians and other academicians could have fallen for Ramsey’s baseless and bewildering argument .

**Keywords:** imprecise probability, interval probability, logical connections, premises, argument form, relational, propositional logic

## 1. Introduction

The paper will be organized in the following fashion. Section Two will cover Ramsey’s bizarre “interpretation” of Keynes’s relational, propositional logic, as applied in Keynes’s *A Treatise on Probability* (TP,1921), which involves propositions which are NOT RELATED, which has nothing to do with a relational, propositional logic, where the propositions MUST BE RELATED. Section Three covers Keynes’s clear presentation in the TP showing that the propositions MUST BE RELATED. Section Four compares and contrasts Ramsey’s and Keynes’s presentations. The only conclusion possible is that Ramsey never read Keynes’s *A Treatise on Probability* and created his own “interpretation “ based on hallucinations and/or other emotional problems impacting his mental state between 1922 and 1926.Section Five concludes the paper .

## 2. Ramsey’s hallucinations

Consider the following quotation of Ramsey’s argument in 1922.The same argument, rewritten and rearranged, appears in 1926: “Mr. Keynes denies this; he supposes not only that not all probabilities are numerical, but also that it is possible to have two probabilities which are unequal and such that neither is greater than the other. This view is based on the difficulty in so many cases of saying with any confidence which of two probabilities is the greater, or of assigning any numerical measures to them. But it would appear that the force of this objection to the ordinary view is exaggerated to Mr. Keynes for two reasons. First, he thinks that between any two non-self-contradictory propositions there holds a probability relation (Axiom I), for example between 'My carpet is blue' and 'Napoleon was a great general'; it is easily seen that it

leads to contradictions to assign the probability 1/2 to such cases, and Mr. Keynes would conclude that the probability is not numerical. But it would seem that in such cases there is no probability; that, for a logical relation, other than a truth function, to hold between two propositions, there must be some connection between them. If this be so, there is no such probability as the probability that 'my carpet is blue' given only that 'Napoleon was a great general', and there is therefore no question of assigning a numerical value.” (Ramsey, 1922, pp.3-4;1989, pp.219-220; italics and underscore used ). Ramsey is asserting that his “...My carpet is blue, Napoleon was a great general” is a representative example of the application of Keynes’s relational, propositional logic. Ramsey claims that Keynes’s relational, propositional logic allows an argument form to be composed of propositions which are NOT RELATED, so that it does not exist .Keynes had excluded precisely these types of propositions p. 5 and pp 137-138 of the TP. It is a simple matter to show that Ramsey’s claims were all gobbledegook. The demonstration will take place in the next section.

## 3. Keynes’s Analysis

Consider Keynes’s Darwin example, an understanding of which allows any reader to immediately reject Ramsey’s bizarre, Twilight zone, argument (or hallucination): “We believe that there is some real objective relation between Darwin’s evidence and his conclusions, which is independent of the mere fact of our belief, and which is just as real and objective, though of a different degree, as that which would exist if the argument were as demonstrative as a syllogism. We are claiming, in fact, to cognise

correctly a logical connection between one set of propositions which we call our evidence and which we suppose ourselves to know, and another set which we call our conclusions, and to which we attach more or less weight according to the grounds supplied by the first. It is this type of objective relation between sets of propositions—the type which we claim to be correctly perceiving when we make such assertions as these—to which the reader’s attention must be directed.”(Keynes,1921,p.6). This is simply a restatement by Keynes of Boole’s 1854 discussion that I have gone over above in my abstract. Keynes’s crucial statement is that "We are claiming, in fact, **to cognise correctly a logical connection** between one set of propositions which we call our evidence and which we suppose ourselves to know, and another set which we call our conclusions,....”

#### 4. Comparing Ramsey’s hallucination with Keynes’s definition

Let us compare what Ramsey and Keynes are stating about Keynes’s application of Boole’s relational, propositional logic: Ramsey claims the following: “But it would seem that in such cases there is no probability; that, for a logical relation, other than a truth function, to hold between two propositions, there must be some connection between them. If this be so, there is no such probability as the probability that 'my carpet is blue' given only that 'Napoleon was a great general' (Ramsey, 1922) Keynes’s restatement of Boole’s summary of what is involved was that "We are claiming, in fact, to cognise correctly a logical connection between one set of propositions which we call our evidence and which we suppose ourselves to know, and another set which we call our conclusions,....” Keynes has already ruled out of bounds any supposition that his logic involved UNRELATED propositions where the probability is nonexistent. Any reader of pp.4-6 of chapter I of Keynes’s TP would immediately realize that Ramsey’s “...My carpet is blue, Napoleon was a great general....” example is a nonsense example of Keynes’s logical theory of probability and ,in fact, of ALL logical theories of probability.

#### 5. Conclusions

Ramsey’s 1922 review of the logical theory of probability contained in Keynes’s TP is simply utterly ludicrous and preposterous intellectual gobbledygook that has masqueraded for 102 years as erudite, serious, sincere, scholarly work. This gobbledygook is the foundation for all economist and philosopher evaluations and assessments of Keynes’s TP in both the 20th and 21<sup>st</sup> centuries, as can be easily confirmed by reading any of B. Gerrard’s 2023 articles in the *Cambridge Journal of Economics, Review of Political Economy, and Journal of the History of Economic Thought*, or P. Clarke’s 2023 book from Cambridge University Press. My references supply the reader with just a small sampling of the number of articles that incorporate Ramsey’s delusions and illusions as the foundation for their assessment and evaluation of Keynes’s TP. (See also Bateman, Blackburn, Carabelli, Davis, Dequech, Gillies, Hacking, Levi, Marsay, Mellor, Methven, Misak, Monk ,Runde, Skidelsky, Wheeler, Zabell, etc.)

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