

Justified True Belief: The Remarkable History of Mainstream Epistemology

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Abstract: This paper reconstructs the origins of Gettier-style epistemology, highlighting the philosophical and methodological debates that led to its development in the 1960s. Though present-day epistemologists assume that the search for necessary and sufficient conditions for knowledge began with Gettier's 1963 argument against the JTB-definition, I show that this research program can be traced back to British discussions about knowledge and analysis in the 1940s and 1950s. I discuss work of, among others, Bertrand Russell, G. E. Moore, A. J. Ayer, Norman Malcolm, and A. D. Woozley, showing how exchanges between different schools of analytic philosophy gave rise to new ideas about the nature of knowledge and analysis. Finally, I turn to Gettier's intellectual development and argue that his paper was influenced by some of these debates, suggesting that even his interpretation of Plato's definition of knowledge can be traced back to discussions in this period.

Keywords: Epistemology, knowledge, analysis, justified true belief, Russell, Moore, Gettier, Ayer, Malcolm, Woozley

1. Introduction

In 1963, Edmund Gettier published his landmark paper "Is Justified True Belief Knowledge?", arguing that the JTB-definition of knowledge "does not state a *sufficient* condition for someone's knowing a given proposition" (1963, 123). The article quickly attracted a large number of responses from epistemologists, who began exploring supplementary conditions and alternative definitions, thereby giving rise to a research program frequently labeled "post-

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Gettier epistemology” (Pritchard 2007, 85; Hetherington 2019, 1). In fact, analysis of knowledge became such a prominent field of study that critics—feminists, formal epistemologists, and experimental philosophers—began labeling it ‘mainstream’ epistemology.¹

Since epistemology is one of the core disciplines of analytic philosophy, one would expect a program as influential as Gettier’s to have a prominent place in the pantheon of the tradition. Yet surprisingly little is known about its origins and development. Historians have minutely reconstructed the genesis and evolution of logical positivism, the Cambridge school of analysis, and ordinary language philosophy. But they have paid scant attention to the question when and why epistemologists started exploring necessary and sufficient conditions for knowledge and related concepts. Nor have post-Gettier epistemologists themselves developed a detailed history of the field. Most textbooks and disciplinary histories note that analysis of knowledge became a prominent topic *following* the publication of Gettier’s paper (e.g. Pritchard 2019) but do not examine its historical antecedents.

Our ignorance about the development of mainstream epistemology is remarkable for two reasons. For one thing, it is quite puzzling how Gettier-style analysis could have emerged in a philosophical environment that seemed generally opposed to the idea that we can or should explore necessary and sufficient conditions for everyday epistemic concepts. In the 1950s, analytic philosophy was dominated by logical atomism, logical positivism, pragmatism, and ordinary language philosophy. Yet none of these schools would have accepted Gettier’s methodological presuppositions. Bertrand Russell believed that knowledge is “a term incapable of precision” (1948/2009, 516). Rudolf Carnap was not interested in ordinary language and attempted to *explicate* technical notions such as ‘confirmation’ and ‘probability’ (1950, ch. 1). Ludwig Wittgenstein rejected the presupposition that everyday concepts can be strictly defined and claimed that is a mistake to believe “that in order to get clear about the meaning of a general term one [has] to find the common element in all its applications” (1958, 19). And J. L. Austin maintained that “concepts are more subtle, at least in all ordinary and reasonably practical matters, than any that you or I are likely to think up in our armchairs” (1957, 8).

Second, our lack of knowledge about the origins of mainstream epistemology is surprising because it is implausible that the tradition started with Gettier. Though Gettier’s paper is widely viewed as “a turning-point in epistemology” (Williamson 2015, 129), it was first and foremost a *response* paper. The article’s very first sentence—“Various attempts have been made in recent years to state the necessary and sufficient conditions for someone’s knowing a given proposition” (1963, 121)—indicates that Gettier replied to an existing debate. If we want to improve our understanding of the origins of mainstream epistemology, therefore, we cannot just start with Gettier’s paper. We should analyze the discussion about knowledge in the years before its publication and explore the development of the methodological

¹ V. F. Hendricks characterizes mainstream epistemology as the search for “necessary and sufficient conditions for the possession of knowledge using largely common-sense considerations and folksy examples” (2005, 4). The philosopher of race Charles Mills identified the project of “coming up with startling new solutions to the Gettier problem” as a central element of the enterprise that alternative epistemologies seek to dismiss (1988, 237).

presuppositions Gettier took for granted: that epistemologists ought to find necessary and sufficient conditions for epistemic concepts; that they should focus on everyday notions such as ‘knowledge’ and ‘belief’; and that we can test a definition by consulting our intuitions about how we would employ the concept in a range of hypothetical scenarios.

This paper analyzes the origins and early development of mainstream epistemology as a research program, reconstructing the evolution of its methodological commitments and theoretical presuppositions about the nature of knowledge and analysis.² I argue that this research program gradually emerged in the decades before the publication of Gettier’s paper and show that the debate can be traced back to British discussions about knowledge and analysis. I start with an overview of Anglophone epistemology textbooks published in the first half of the twentieth century and demonstrate that they rarely included discussions about the definition of knowledge (§§2-3). Next, I argue that knowledge became a frequently discussed theme in the late 1940s, following the publication of a number of influential books and papers on the topic, many of which were a response to the growing popularity of logical positivism (§4). I submit that these discussions led to exchanges between different schools of analytic philosophy and argue, focusing on the work of A. J. Ayer, Norman Malcolm, and A. D. Woozley, that philosophers began to mix methodological perspectives, thereby giving rise to new ideas about knowledge and analysis (§§5-6). Finally, I briefly turn to Gettier’s intellectual development and argue that his 1963 paper was a response to some of these debates (§7), showing that even Gettier’s interpretation of Plato’s theory of knowledge can be traced back to discussions in the 1950s (§8).

2. Preliminaries (1): Epistemology textbooks 1899-1959

Though Gettier-style, intuition-based conceptual analysis might appear a natural approach to epistemology today, it is a fairly recent invention. English-language epistemology textbooks from the first decades of the twentieth century reveal that the analysis of knowledge was not a central topic of epistemology before World War II.³ Introductions from this period typically discuss a range of views about sources of knowledge, about the nature of perception, about the grounds of knowledge, about the problem of induction, about the difference between knowledge and faith, about the a priori, and about the relation between our ideas and the world. But they rarely try to *define* the notion, let alone state a number of necessary and sufficient conditions. Ledger Wood’s book *The Analysis of Knowledge*, for example, shows that epistemologists at the time still had a different conception of analysis. Wood, a Princeton

² See Dutant (2015) and Le Morvan (2017) for reconstructions of the origins of the JTB-definition of knowledge itself.

³ The following discussion is based on a study of nine Anglophone epistemology textbooks published between 1899 and 1959: *Methods of Knowledge* (Smith 1899); *Truth and Reality: An Introduction to the Theory of Knowledge* (Boodin 1911); *Epistemology* (Coffey 1917); *The Nature of Knowledge* (Aaron 1930); *Knowledge, Belief, and Opinion* (Laird 1930); *The Analysis of Knowledge* (Wood 1940); *Theory of Knowledge* (Woozley 1949); *The Conditions of Knowing* (Sinclair 1951); and *Inquiring Mind: An Introduction to Epistemology* (Boas 1959).

professor, characterized knowledge as an act of the mind directed toward an object and assumed that an “analysis” of knowledge involves the enumeration of “the types of knowledge according to the character of the object cognized” (1940, 9). Memory, introspective knowledge, sensory knowledge and formal knowledge all involve different objects and are therefore different types of knowledge.⁴

If the concept was defined at all, epistemologists focused on knowledge of things rather than propositions. Walter Smith, for example, complained that the question “What is Knowledge?” had received “too little attention from philosophers”. But in trying to find a definition, he exclusively focused on the mind’s apprehension of *objects*. After a survey of “the great philosophical theories”, Smith concluded that knowledge is a *mental act* in which the object of knowledge is either “present to the knowing mind in copy”, such as when we have knowledge of the external world, “or in some more intimate way”, for instance when we introspect our conscious selves (1899, 14, 35-6). The Welsh epistemologist R. I. Aaron proposed a similar view in a book titled *The Nature of Knowing*. Knowledge, Aaron maintained, ought to be characterized as the “intuitive apprehension” of objects (1930, 9, 153).

A second common feature of early 20th-century analyses is that epistemologists often drew a strict distinction between knowledge and belief. Whereas present-day discussions generally presuppose that knowledge is a type of belief (that is also true and justified, etc.), epistemologists at the time held that “the man who knows does not believe at all what he knows; he knows it” (Cook Wilson 1926, 100).⁵ Even in 1949, A. D. Woozley still called this theory the “traditional view”, describing it as the position that we should strictly separate knowledge and belief because the former is “reserved for certainties and therefore cannot be false”, while beliefs are different because “one can be sure and be wrong” (1949, 181).⁶ Naturally, this view impeded philosophers from trying to define knowledge, since any attempt to analyze the concept “in terms of something else must end in describing something which is not knowledge” (Prichard 1909, 245). Many epistemologists believed knowledge to be a *sui generis* concept, incapable of being explained in simpler terms. Peter Coffey argued that knowledge “cannot properly speaking be defined, or explained in terms of anything other than itself” in his

⁴ Robert Pasnau draws a similar conclusion about analysis of knowledge in pre-modern times: “From Aristotle through the Middle Ages and well beyond, philosophers took an interest in carefully circumscribing one or another particular kind of cognitive grasp of reality — perception, imagination, assent, deduction, etc.—but showed little interest in trying to define the broad category of knowledge” (2013, 990).

⁵ Maria Rosa Antognazza arrives at a similar conclusion after surveying the work of pre-twentieth century epistemologists: “historically, the traditional accounts of knowledge central to Western philosophy did not take knowledge to be a kind of belief which meets certain criteria. The project of finding what should be added to belief in order to turn it into knowledge would have been regarded by much pre-twentieth century epistemology as absurd” (2015, 169).

⁶ See Travis & Kalderon (2013) and Le Morvan (2017, 1231-2). Woozley himself had a different view, as we will see in section 6.

Introduction to Epistemology (1917, 25). And Aaron maintained that knowledge “is something direct, immediate, and *sui generis*” in *The Nature of Knowing* (1930, 142).⁷

Conceptually, the two points are connected. Many epistemologists presupposed a strict distinction between knowledge and belief precisely *because* they characterized knowledge as a type of mental act. The Edinburgh philosopher A. E. Taylor, for example, defended this view in “Knowing and Believing”, the 1928 Aristotelian Society presidential address. Knowing, Taylor maintained, “is not a special way of believing” nor is believing a “special way of knowing” because knowing and believing “are two quite distinct attitudes of the mind to that which it apprehends” (1929, 29). Knowledge and belief are different because the former implies that we are directly apprehending an object whereas the latter implies that we are not.

3. Preliminaries (2): Russell and Moore

There are two prominent exceptions to the above story. Both Bertrand Russell and G. E. Moore broke with some of the aforementioned assumptions and drew a distinction between propositional and non-propositional knowledge. Russell differentiated between “knowledge of things” and “knowledge of truths” in *The Problems of Philosophy* (1912, 23). And Moore distinguished between the apprehension of objects and the cognitive relation involving subjects and propositions (1911/1953, 83). When we have knowledge of *things*, we either directly or indirectly apprehend an object; but when we have knowledge of *truths*, we “know *that* something is the case” (1912, 23).⁸ In addition, both Russell and Moore accepted that propositional knowledge is a type of belief and attempted to *define* it. Russell noted that we must “decide what we mean by ‘knowing’” and briefly entertained (but ultimately dismissed) the idea that knowledge is true belief validly deduced from either true or known premises (1912, 76). And Moore aimed to answer the question what we mean “when we talk of *knowing* propositions to be true” and concluded that “knowing that so and so is the case” involves at least a belief *in* and the direct apprehension *of* a true proposition (1911/1953, 80-1).

Though Russell’s and Moore’s ideas about knowledge seem quite similar to those of present-day epistemologists, it would be a mistake to conclude that they presupposed a Gettier-style research program. For one thing, neither Russell nor Moore believed that an analysis of knowledge should be strictly tied to how we ordinarily *use* this concept. Moore held that our use of the word ‘know’ does not map neatly onto the cognitive relations we have to objects and propositions. In some cases, different words (e.g. ‘know’, ‘perceive’, ‘imagine’) “are all used

⁷ John Boodin (1911, 154) also argued that it is “impossible” to define knowledge but referred to Plato’s discussion in the *Theaetetus* to support his claim. I will discuss the shifting interpretation of Plato’s definition of knowledge in section 8.

⁸ Note that Russell’s distinction does not map onto his better-known dichotomy between knowledge by acquaintance and knowledge by description. Both acquaintance and description knowledge are knowledge of things. Still, there is an indirect relation between the two distinctions. Russell believed that (1) all knowledge of truths involves acquaintance with universals and therefore presupposes knowledge by acquaintance; and (2) that all knowledge by description presupposes some knowledge of truths (1912, 25, 53).

to denote exactly the same relation” and in other cases the same word (‘know’) is used “to denote entirely different relations” (1911/1953, 78). Russell presupposed a transformative conception of analysis and believed that a satisfying explication ought to capture a proposition’s logical form, not its grammatical surface structure. An analysis, Moore and Russell held, is valuable precisely because it can go beyond ordinary use and reveal the variety of relations between subjects and the external world. Second, they both presupposed a version of the mental act view in their theories about propositional knowledge. Knowing that something is the case either involves “acquaintance with universals” (Russell 1912, 53) or “the direct apprehension of a true proposition” (Moore 1911/153, 81). Third, and most importantly, both Russell and Moore appear to reject the assumption that knowledge *can* be strictly defined. Russell concluded his two-page analysis with the remark that “a very precise definition ... should not be sought, since any such definition must be more or less misleading”. Knowledge, Russell held, is simply “not a precise conception” (ibid., 78).⁹ And Moore never returned to the definitional question after concluding that knowledge involves more than just a belief in and the direct apprehension of a true proposition—not even in his seminal defense of common-sense knowledge (Moore 1925).

The above discussion shows that it would be a mistake to conclude that Russell and Moore are Gettier-style epistemologists. It would equally be a mistake to conclude that Moore’s and Russell’s perspectives immediately changed the nature of epistemology. The above survey of textbooks shows that epistemologists largely stuck to traditional analyses and one can detect a similar trend in 20th-century journal publications.¹⁰ Nor did *analytic* philosophers pick up on Moore’s and Russell’s analyses. Though the Cambridge philosophers had a major impact on the development of the analytic tradition, few analytic philosophers wrote about the concept of knowledge in the 1920s and 1930s. Following the publication of Wittgenstein’s *Tractatus* (1921), the rise of logical positivism, and Russell’s own remark that philosophers had done too “little towards explaining the nature of the relation called meaning” (1919, 7), many analytic philosophers focused on topics such as meaning and verification instead. In the words of C. I. Lewis, who signaled the trend in his 1933 APA Presidential Address:

Ever since the provisional skepticism of Descartes’ First Meditation the attack upon any problem of reality has always been shadowed by the question ‘How do you know?’... The last thirty-five years have witnessed a growing emphasis upon another

⁹ Russell stuck to this conclusion throughout his career. See e.g. *Theory of Knowledge* (1913/1984, 156) and *Human Knowledge* (1948/2009, 113, 516).

¹⁰ Brian Weatherston’s topic model analysis of philosophy journals shows that epistemologists published very few papers resembling present-day epistemology before World War II (2022, ch. 2.74). In Moore’s case, the lack of direct impact is due to the fact that his 1911 lectures were not published until 1953. Russell’s *The Problems of Philosophy* was a popular book but epistemologists mostly referred to his discussion of knowledge by acquaintance and knowledge by description, which are both forms of non-propositional knowledge (see footnote 9).

... challenge, which bids fair to prove equally potent in its directing influence. This is the question ‘What do you mean?’ (1934, 125)

Questions concerning our knowledge of the external world were replaced with questions concerning the verifiability of existence statements. And questions about our knowledge of other minds were replaced with questions concerning the significance of statements about another person’s pain experiences. Classics such as Ayer’s *Language, Truth, and Logic*, Carnap’s “Testability and Meaning”, Ogden and Richards’ *The Meaning of Meaning*, Russell’s *An Inquiry into Meaning and Truth*, Schlick’s “Meaning and Verification”, Stebbing’s “Logical Positivism and Analysis”, Stevenson’s “The Emotive Meaning of Ethical Terms”, and Wittgenstein’s *Blue and Brown Books*, all written or published in the 1920s and 1930s, signal this trend in analytic philosophy.

4. Post-WWII Knowledge Boom

Lewis published his paper in a period when the “two chief problems” of epistemology were “the question of meaning and the question of verification” (Carnap 1936, 420). After World War II, however, many analytic philosophers returned to the analysis of *knowledge*. Between 1946 and 1951 alone, a surprisingly large number of prominent analytic philosophers started writing about knowledge, belief, and justification. Gilbert Ryle published his seminal address “Knowing How and Knowing That” (1946), later included in the *Concept of Mind* (1949), Russell wrote *Human Knowledge: Its Scope and Limits* (1948/2009), John Dewey and Arthur Bentley published *Knowing and the Known* (1948), Wittgenstein wrote the notes later published as *On Certainty*, and Austin first presented the lectures later published as *Sense and Sensibilia*. Even Lewis, who had signaled the ‘meaning’ trend in his 1934 address, returned to epistemology proper, publishing his magnum opus *An Analysis of Knowledge and Valuation* in 1946.

When one studies this work on knowledge, one quickly discovers a common agenda. Many of the aforementioned books, papers, and lectures can be read as direct responses to logical positivism, which had come to dictate the philosophical conversation in the late 1930s. Austin’s lectures were a reply to Ayer, whom he used as his “chief stalking-horse” in his discussion of sense data (1947/1962, 1). Lewis’s book was a defense of ethics against Carnap’s “nihilistic” non-cognitivism in the realm of values (1946, 399). Both Dewey and Bentley were deeply concerned about the rise of logical positivism, which they saw as “the new scholasticism” (Misak 2013, 168). And Russell’s book was in part an attempt to distinguish himself from Ayer and co. In the words of John Slater, who has investigated the genesis of *Human Knowledge*, it was the “rise of the logical positivists in the 1930s” which forced Russell “to distinguish his position” from the views of his colleagues, who were “too extreme for his taste” (2009, xii).¹¹

¹¹ Cf. Russell (1945/1997). Ryle might appear an exception as he never identifies a specific target in his paper, noting that philosophers *in general* “have not done justice to the distinction ... between knowing that something is the case and knowing how to do things”. Yet recent

At first, opponents of logical positivism had primarily questioned its views about meaning and verification. They had argued that the verifiability criterion is too strict (Lewis 1934), self-undermining (Weiss 1934), and useless because we only know how to verify a proposition if we already understand its meaning (Berlin 1939).¹² But critics gradually began to explore different lines of attack in the 1940s. Logical positivism began to be characterized as an empiricist theory of *knowledge* and philosophers started to criticize its *epistemology*. Russell argued that “the notion of ‘verification’ has been insufficiently analysed, with resulting errors in theory of knowledge” (1945/1997, 155). Austin wrote that Ayer’s sense data theory was in essence a (misguided) theory of knowledge (1947/1962, 104). And Lewis tried to refute non-cognitivism in ethics by showing that “evaluations are a form of empirical knowledge, not fundamentally different ... from other kinds of empirical knowledge” (1946, 365).

Most likely, it was Ayer’s work that cleared the way for this new line of defense. For Ayer himself had started to present his view as a theory of knowledge, too. Whereas *Language, Truth, and Logic* (Ayer 1936) had predominantly focused on meaning and verification, his second book was titled *The Foundations of Empirical Knowledge* (Ayer 1940). Published just after the start of World War II, Ayer’s book tried to “resolve the philosophical problems which are commonly brought under the heading of ‘our knowledge of the external world’” and to develop, in detail, a new theory of sense data and experience in order to “justify our belief in the existence of material things” (1940, vii, 1). In doing so, Ayer opened the door to more traditional, epistemology-centered arguments against logical positivism, inviting analytic philosophers to criticize his radically empiricist theory.

A second factor contributing to Ayer’s appeal as a scapegoat is that he presented logical positivism as a series of relatively straightforward arguments and positions. Whereas his European and American colleagues were publishing highly technical work in the 1940s—e.g. Carnap’s analysis of the foundations of probability (1950), Reichenbach’s book on quantum mechanics (1944), and Goodman and Quine’s attempt to develop a nominalistic reinterpretation of classical mathematics (1947)—Ayer’s books present logical positivism as a set of easy-to-follow, provocative, and radically empiricist analyses of traditional philosophical topics such as truth, meaning, knowledge, values, the self, and God. Moreover, Ayer frequently addressed the views of colleagues who opposed logical positivism, thereby stimulating them to engage with his work. Unlike his colleagues in Europe and the United States, Ayer regularly cited philosophers such as Austin, Broad, Moore, Price, Prichard, Russell, Ryle, Stebbing, Wisdom, and Wittgenstein, thereby explicitly developing his variant of logical positivism in conversation with non-technical analytic philosophers. In fact, Ayer himself was very much a product of this non-technical branch of British analytic philosophy. He had started his career

work has shown that Ryle obtained the distinction from Margaret MacDonald, who used it to criticize Ayer’s and Ramsey’s variants of empiricism. Ayer and Ramsey, MacDonald argued, conflated two distinct types of knowledge: knowledge of truths and knowledge of how to apply rules (MacDonald 1937; Kremer 2022, 298-9).

¹² See Uebel (2019) and Verhaegh (2020) for an overview. Historians have argued that the views of the Vienna Circle were subtler than their critics made them out to be. In this paper, I will ignore the question whether opponents correctly interpreted the positivists’ views.

as a student of Ryle and frequently debated his views in a weekly discussion group which also included Austin, Stuart Hampshire, and Isaiah Berlin. Indeed, it is likely that Ayer's own development—including his increased focus on questions of knowledge—was stimulated by his conversations with Ryle and his colleagues in the Oxford discussion group.¹³

5. Bridge figures (1): Norman Malcolm

The aforementioned books and papers prompted a lively discussion in epistemology. In the years leading up to the publication of Gettier's paper, philosophers published hundreds of papers and books on knowledge.¹⁴ And though none of the philosophers who had started the debate presupposed a conception of analysis similar to Gettier's (see §1), their works stimulated a discussion that led to increased exchanges between the schools that dominated Anglophone philosophy: pragmatism, logical positivism, ordinary language philosophy, and the Cambridge school of analysis. As a result, methodological preconceptions began to mix, generating new approaches to analysis. In this section and the next, I discuss two philosophers, Norman Malcolm and A. D. Woozley, who contributed to this development, showing how their idiosyncratic perspectives on knowledge and analysis combined insights from different schools of analytic philosophy, thereby giving rise to a new approach to epistemology.

Norman Malcolm was a Cornell philosopher who combined a variety of approaches. He had studied with Lewis at Harvard, with Moore and Wisdom at Cambridge, and he acquired a Guggenheim fellowship to study with Wittgenstein in 1946. He had written a dissertation in which he criticized, among others, Ayer's and Carnap's conventionalist views on the nature of necessary propositions (Malcolm 1940, ch. 4) but—following the above-discussed trend—turned to questions about knowledge in subsequent years (e.g. Malcolm 1949; 1952). In doing so, he developed a type of ordinary language analysis that is quite unlike the variants that were in vogue in Oxford and Cambridge. In 1942, Malcolm published a paper on Moore's common-sense epistemology, reconstructing his methodology as a type of ordinary language philosophy. According to Malcolm, the “essence of Moore's technique of refuting

¹³ Kremer (2017) argues that Ayer's second book was influenced by Ryle. Berlin (2014) offers a history of the Oxford discussion group. Russell played a role, too. Ayer's first attempt to address epistemology proper (“On the Scope of Empirical Knowledge”, 1938) was a response to Russell's article “The Limits of Empiricism”, which argued that “pure empiricists” cannot account for “what is ordinarily regarded as empirical knowledge” (Russell 1936, 148).

¹⁴ Even if one only counts journal articles that contain the word “know”, “knowing”, or “knowledge” as a *title* term, one can find 174 articles published in Anglophone philosophy journals between 1945 and 1962 (JSTOR Search Query: Item title ‘know*’, Item type ‘Articles’, Language ‘English’, Discipline ‘Philosophy’). Naturally, not all these papers can be classified as epistemology papers. Still, Austin, Dewey, Lewis, Moore, Russell, Ryle, and Wittgenstein are among the most-cited philosophers in this literature, as we shall see in §7.

philosophical statements consists in pointing out that these statements *go against ordinary language*” (1942, 349), an interpretation Moore himself dismissed.¹⁵

An important feature of Malcolm’s methodology is his conception of ‘ordinary expression’. In his 1942 paper, Malcolm denies that we should solely focus on facts about how we actually use concepts in everyday situations. He explicitly accepts that we should also allow facts about how we *would* use a concept in hypothetical scenarios:

By an ‘ordinary expression’ I mean an expression ... which is ordinarily used to describe a certain sort of situation. By this I do not mean that the expression need be one which is frequently used. It need only be an expression which *would* be used to describe situations of a certain sort, if situations of that sort were to exist, or were believed to exist. (Malcolm 1942, 358)

In allowing facts about how we would use expressions in a variety of situations, Malcolm opened the door to a method commonly employed by post-Gettier epistemologists: the use of imaginary scenarios to explore intuitions about knowledge. Malcolm believed that an ordinary expression should have a commonly accepted use. As long as we agree about whether we *would* use a concept in a hypothetical scenario, “it need not be the case that it is ever *used*” in this way (ibid., 359).

I do not want to suggest here that Malcolm was the first to allow hypothetical scenarios to explore intuitions about concept use. His approach probably did not raise any eyebrows when he first visited Cambridge in 1938. Still, he *was* one of the first to explicate and defend the method, answering the question of why philosophical statements should not violate ordinary language considering the fact that “ordinary men are ... frequently mistaken” (ibid., 355). Moreover, Malcolm appears to have been one of the first to apply the methodology to the analysis of knowledge and to generate intricate and lengthy hypothetical scenarios in order to get clear about its definition. Whereas many of his teachers, in particular Wittgenstein, were deeply sceptical about identifying necessary and sufficient for ordinary language concepts, Malcolm identified some necessary conditions for knowledge using this method. In a paper titled “Knowledge and Belief”, for example, he used the following scenario to shed new light on the concept:

Let us begin by studying the ordinary usage of ‘know’ and ‘believe’. Suppose, for example, that several of us intend to go for a walk and that you propose that we walk in Cascadilla gorge. I protest that I should like to walk beside a flowing stream and that at this season the gorge is probably dry. Consider the following cases:

- (1) You say ‘I believe that it won’t be dry although I have no particular reason for thinking so’. If we went to the gorge and found a flowing stream we should not say that you *knew* that there would be water but that you thought so and were right.
- (2) You say ‘I believe that it won’t be dry because it rained only three days ago and usually water flows in the gorge for at least that long after a rain’. If we found water we should be inclined to say that you knew that there would be water. It would be quite

¹⁵ See Moore (1942, 667-75), Baldwin (1990, 279), and Vanrie (2021, 632-5) for a discussion.

natural for you to say ‘I knew that it wouldn’t be dry’. This case differs from the previous one in that here you had a *reason*. (1952, 178)

Cases (1) and (2), Malcolm argues, suggest that having a reason is a necessary condition for knowledge. The only difference between the two cases is that the protagonist in (2) has a *reason* for believing that the gorge won’t be dry. Justification, therefore, is a crucial factor in our judgment that the protagonist in (2) knew that the gorge would not be dry.

Malcolm also uses (2) to identify a second necessary condition for knowledge. After describing a variant on (2) in which the protagonist says “It rained only three days ago and usually water flows in the gorge for at least that long after a rain; but, of course, I don’t feel absolutely sure that there will be water”, Malcolm argues we should deny that the protagonist knows that there is water in the gorge, concluding that “being confident is a necessary condition for knowing” (ibid. 179). Whereas Wittgenstein and Oxford ordinary language philosophers dismissed the view that ordinary language concepts are precise enough to pin them down, Malcolm’s approach seems perfectly compatible with the assumption that we can specify necessary conditions for ordinary epistemic concepts.

A second interesting feature of Malcolm’s analysis is that he also used the gorge scenario to defend the thesis—previously developed by Russell and Moore (see §3)—that knowledge is a type of *belief*. While H. A. Prichard, the aforementioned proponent of the view that knowledge is an indefinable concept, argued “that we cannot mistake belief for knowledge” (1950, 88), Malcolm sketched two new variants of the gorge scenario to show that we *cannot* always separate the two:

(4) You say ‘I know that it won’t be dry’ and give a ... reason, e.g. ‘I saw a lot of water flowing in the gorge when I passed it this morning’. If we went and found water, there would be no hesitation at all in saying that you knew.

(5) Everything happens as in (4), except that upon going to the gorge we find it to be dry. We should not say that you knew, but that you believed that there would be water. And this is true even though you declared that you knew, and even though your evidence was the same as it was in case (4). (1952, 178-9)

In (4) and (5), Malcolm concludes, the only thing that distinguishes a *belief* that the gorge won’t be dry from *knowledge* that the gorge won’t be dry is whether the gorge is *in fact* dry, showing that knowledge is just a type of belief: “As philosophers we may be surprised to observe that it can be that the knowledge that *p* is true should differ from the belief that *p* is true only in the respect that in one case *p* is true and in the other false” (1952, 180).¹⁶

6. Bridge figures (2): A. D. Woozley

¹⁶ Cf. Dutant (2015, 33). In his dissertation, Malcolm had still defended the thesis that there are scenarios in which “I know that *p*” entails “I do not believe that *p*” (1940, 104).

Malcolm was not the only or the first epistemologist to argue that knowledge is a type of belief. Three years before, A. D. Woozley had published a book (*Theory of Knowledge*) in which he attacked “the traditional view” that knowledge and belief are “different in kind ... no more to be defined one in terms of the other than ... love and friendship” (1949, 176). The standard view “is false”, Woozley argued, because it is based on the common but mistaken idea that knowledge and belief are “mental act[s]” which have “a certain object”. Knowing and believing, however, are “not properly speaking ... acts at all”, they are behavioral dispositions:

If we hear that *A* has hit *B*, we may want to ask when he hit him, or how long he continued to hit him. Hitting is an event or a process, about which it [makes] sense to ask when it occurred ... But we cannot ask the corresponding things about knowing. Knowing and believing ... are dispositional in character. That is, it does not have to be the case that some event is now going on in my mind, or that I am performing some mental act, for it to be the case that I know ... My wife knows that milk boils over easily, although she is not now thinking of it, and although she almost never thinks of it when she is boiling milk. (1949, 178-9)

We say that someone knows or believes that *p* if they are disposed to act in certain ways in certain situations. The students in a first-year epistemology class all believe that Paris is the capital of France, even though not one of them is currently entertaining the thought. Still, we attribute this belief to them because they have the disposition to answer ‘Paris’ when asked about the country’s capital.

Interestingly, Woozley used his dispositional theory to criticize Malcolm’s aforementioned view that confidence is a necessary condition for knowledge. In a response paper, published in 1953, Woozley accuses Malcolm of making the same mistake traditional epistemologists had made in defending the “mental act” view:

My purpose ... is to call attention to and correct a mistake which philosophers not uncommonly make when they talk about knowledge. Its latest occurrence known to me is in Professor Malcolm's article ... The tendency to psychologize knowing, even if acts of knowing are not admitted, dies hard, and a part cause of that may be in the continuance of this mistake. It is the mistake of thinking that ... ‘being confident is a necessary condition for knowing’. (1953, 151)

Malcolm and like-minded epistemologists, Woozley argued, confuse *knowing* with *claiming to know*. Though it would be odd to *claim* that one knows something even if one is not sure about its truth, we often *attribute* knowledge to people who are not confident about their beliefs. Since knowing is a disposition, we do not have to refer to *any* mental act in order attribute knowledge. An excellent student may be nervous about passing their exam and claim that they are very unsure about their answers. But we still attribute knowledge to them when we see that they answered every question correctly (ibid., 155).

Woozley is an interesting bridge figure in the development of epistemology. He had a different background than Malcolm, who was primarily influenced by Moore and Wittgenstein. Woozley had spent his entire career at Oxford and was a prominent member of the

aforementioned discussion group including Austin, Ayer, and Berlin.¹⁷ In fact, there is quite some evidence that Woozley was influenced by Ayer in developing his dispositional theory. In 1947, two years before the publication of Woozley's book, Ayer had given an inaugural lecture in which he had defended a very similar view:

the current analysis of knowing, believing ... and all the other modes of thought, as acts of the mind which are directed on an object ... is largely mythological... In their ordinary usage ... such words as 'knowing' ... are dispositional words; and to say of someone that he knows is not to say that he is doing anything at all. (1947, 14)

Ayer, this quote shows, did not just defend a dispositional analysis of knowledge. Like Woozley, he also explicitly dismissed the mental act theory, referring to facts about how we ordinarily *use* the notion in his argument. Ayer, in other words, was not just a scapegoat who inspired *critics* of logical positivism to develop alternative epistemologies (section 4). He also developed an analysis of knowledge himself. In fact, Ayer used his inaugural address to propose a *definition* of knowledge, suggesting that knowledge is a type of belief with two additional conditions attached:

the analysis of 'A knows that *p*' involves on the factual side, first a description of certain dispositions ... and it involves, on the semantic side, first the statement that '*p*' is true, and secondly an indefinite statement to the effect that certain propositions constitute good evidence for *p*. (ibid., 19)

We say that someone knows that *p* if they have a true belief inferred from propositions constituting good evidence for *p*. And though Ayer did not yet use the term 'justification', it is clear that his analysis is a close cousin of the definition Gettier dismissed sixteen years later.

Ayer's dispositional theory and JTB-style definition of knowledge are intimately connected. For when one starts conceptualizing notions such as knowing, believing, judging, and imagining as behavioral dispositions, it becomes relatively easy to show how some of these concepts can be defined in terms of the others. It might turn out, for example, that the set of behaviors connected to knowledge is identical to the set of behaviors connected to belief. Claire may know or just believe that Biden is the 46th president of the United States but be disposed to behave in exactly the same ways. She will answer 'Biden' when she is asked about her country's president and she will produce reasons when she is asked why her answer is correct. Only external conditions—whether her belief is true; or whether the reasons she produces are in fact evidence for her belief—decide whether she knows or merely believes.¹⁸ It is exactly

¹⁷ Berlin (2014, 166) writes that Woozley was part of the group from the very beginning (the 1936-7 academic year).

¹⁸ Even if the set of behaviors connected to a dispositional term is not identical to the set of behaviors connected to another dispositional term, one of the sets might be a *strict subset* of the other. On some analyses of knowledge, a person who believes that *p* may be disposed to behave in all the same ways as someone who knows that *p*, except for a small set of behaviors

some such reductionist project that guides Ayer's inaugural lecture. Knowledge is a type of belief with some additional conditions attached. Or, as Woozley put it: "We live in an age of cuts. And if Professor Ayer is not in charge of the Ministry of Philosophical Rationing, he is at least one of its most effective Public Relations Officers" (1948, 350).

Woozley, the above quote shows, was familiar with Ayer's project when he was working on his book. Not only were they members of the same discussion group, he was also one of the first to respond to Ayer's inaugural lecture in print, publishing a critical note about the latter's theory in *Mind*. Ayer, Woozley argued, fails to spell out in detail what a disposition is. It is unclear, for example, whether Ayer takes a disposition to be something someone *could* do or something someone *would* do in appropriate circumstances (Woozley 1948, 350-1). Yet despite his somewhat negative assessment, Woozley embraced Ayer's main conclusions. In *Theory of Knowledge*, Woozley (1) accepted Ayer's view that knowing and believing *are* disposition terms and (2) characterized knowledge as a type of belief with some additional conditions attached. Indeed, Woozley ends his chapter on knowledge and belief with a list of "conditions" very similar to Ayer's, arguing that though truth and belief "are necessary conditions" for knowledge, "they are not yet sufficient" because in order to know, one also needs evidence, be right about that evidence, and be right about the relation of the evidence to the proposition under consideration (Woozley 1949, 189-91).

7. Gettier

Malcolm, Woozley, and Ayer, in sum, all rejected the 'mental act' view and the strict distinction between knowledge and belief to some degree. Moreover, they all came close to proposing a JTB-style definition of knowledge.¹⁹ There is quite some evidence that their views were quickly picked up by the epistemological community. Already in 1952—eleven years before Gettier published his paper—Ryle could claim that "there is quite a vogue nowadays for saying that to know is to believe something which is true and to have reasons for it" (1952/1990, 29). And in a paper titled "On Knowing That", E. M. Adams argued for a JTB-style analysis, citing, among others, Woozley and Malcolm as having proposed similar definitions (1958, 302n4). Though Gettier only referred to Ayer (1956) and Chisholm (1957) to illustrate his claim that there have been "various attempts" to define knowledge as justified true belief (1963, 121), the above discussion demonstrates that (i) Woozley and Malcolm had proposed similar definitions; and (ii) that Ayer had already argued for some such definition in 1947.

Most importantly, Ayer, Woozley, and Malcolm contributed to a novel *approach* to the analysis of knowledge. Their main contribution from a post-Gettier perspective is their

which are typical for someone who is *justified* to believe that *p*. In this way, a dispositional reduction is compatible with both internalist and externalist positions.

¹⁹ So were Lewis (1946, 9) and Russell (1948/2009, 516), though the latter still protested that knowledge is "a term incapable of precision". See section 3. I will leave it to epistemologists to decide whether Malcolm's, Woozley's, Ayer's, Russell's, and Lewis's characterizations can be classified as full-fledged JTB definitions.

alternative conception of what an analysis of knowledge should do: they all identified necessary conditions for knowledge. They all focused on our ordinary use of the concept.²⁰ One of them (Malcolm) introduced the use of hypothetical scenarios to explore our intuitions about how we *would* use the concept in hypothetical scenarios. And they all assumed that a precise definition of knowledge is valuable in itself—i.e. they debated the necessary conditions for knowledge without directly connecting their discussion to an external epistemological goal (such as answering the sceptic). In doing so, they all contributed to the development of a conception of analysis that diverged from the methods employed by the main schools of analytic philosophy: the Cambridge school of analysis (Moore, Russell), logical positivism (Carnap, Hempel), pragmatism (Dewey, Lewis), Cambridge ordinary language philosophy (Wittgenstein), and Oxford ordinary language philosophy as commonly conceived (Austin, Ryle).²¹

One might object that some of the aforementioned epistemologists—especially Malcolm and Woozley—were relatively minor players who did not have the professional status to change epistemology’s central presuppositions about the nature of analysis. It seems unlikely that a prominent subdiscipline such as epistemology could have adopted a new approach in just one or two decades following the idiosyncratic methodological presuppositions of a small group of philosophers with comparatively little influence. A citation network analysis of the debate, however, reveals that Ayer, Malcolm, and Woozley were among the most-cited epistemologists in the 1950s. Figure 1 shows a co-citation network of all papers containing the word ‘know*’ as a title term published in seven major Anglophone philosophy journals—*Analysis*, *Journal of Philosophy*, *Mind*, *Philosophical Review*, *Proceedings of the Aristotelian Society*, *Philosophical Quarterly*, and *Philosophical Studies* between 1946 and 1962, the year before Gettier published his paper.²² Each node in the network represents an author; node sizes reflect the number of citations to the corresponding author within the corpus; lines between nodes represent the association strength between authors,²³ and the location of a node (author) in the network reflects the similarity of citations *to* the author as compared with

²⁰ Even Ayer, we saw, argued that knowing and believing “are dispositional words” in their “ordinary usage” (1947, 14).

²¹ Michael Beaney distinguishes between, among others, ‘logical analysis’ (Frege, Russell, early Wittgenstein), ‘decompositional analysis’ (Moore), ‘directional analysis’ (Stebbing, Wisdom), ‘explication-based analysis’ (Carnap), ‘connective analysis’ (later Wittgenstein) and ‘linguistic analysis’ (Austin). See Beaney (2007; 2021b). Gettier’s approach is dubbed “conceptual analysis” (Beaney 2021a). Technically, Woozley was an Oxford ordinary language philosopher, hence my qualification that he diverged from Oxford ordinary language philosophy ‘as commonly conceived’. Typically, the Oxford approach is associated with what Beaney calls “linguistic analysis” whereas Woozley presupposed a conception of analysis closer to what Beaney calls “conceptual analysis”.

²² An interactive version of this network can be accessed at <https://tinyurl.com/yhmn585b>.

²³ The association strength is the ratio between (a) the number of times two authors are cited together by a third author and (b) the expected number of co-citations if co-citations were statistically independent. Thus, authors with a large number of citations require a large number of co-citations to have a high association strength. See Van Eck & Waltman (2010).

other authors in the web. This co-citation network shows that Ayer, Malcolm and Woozley are among the most-cited authors in the literature in this period; as were some of the philosophers who contributed to the knowledge boom in the first years after WWII—Austin, Russell, Ryle, and Wittgenstein (section 4).²⁴ The network also shows that the discussion about knowledge was first and foremost a debate among British philosophers. The most-cited American philosophers in the literature (e.g. Lewis, Chisholm, Dewey, Bentley, Quine, Bridgman, Aiken, and Santayana) are all on the edge of the network. Malcolm is an important exception, perhaps reflecting the influence of Moore and Wittgenstein. Finally, the network reveals the centrality of Ayer in this debate. The British philosopher is located in the heart of the network and there are strong association relations with most key players in the discussion (Malcolm, Woozley, Moore, Wittgenstein, Ryle, and Russell), providing further confirmation that the British philosopher played a central role in the rise of mainstream epistemology.²⁵

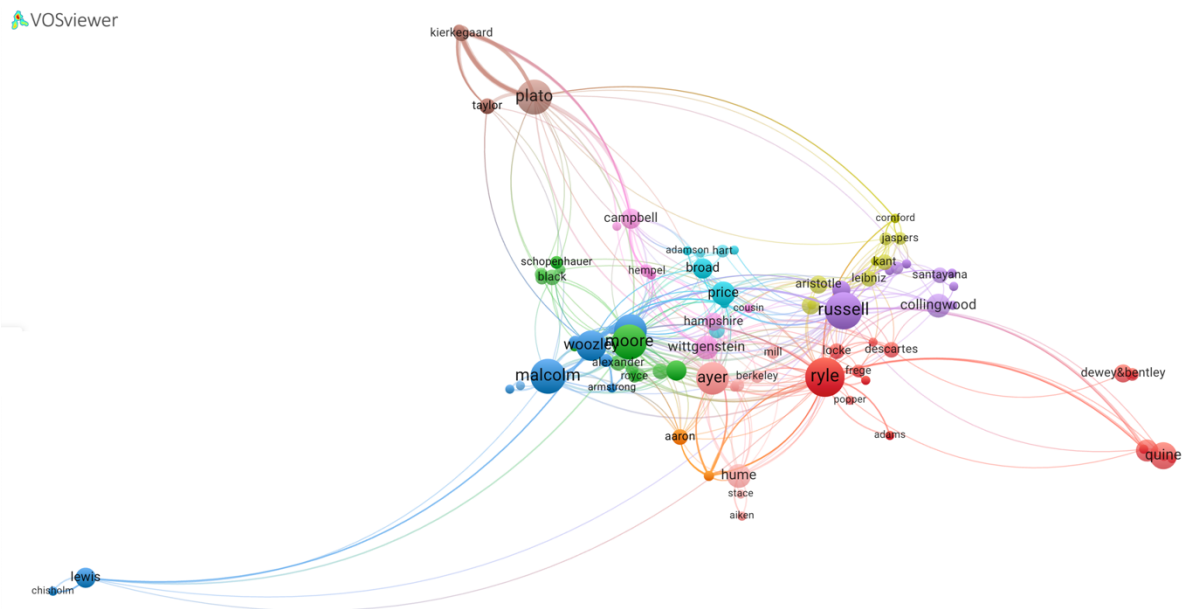


Figure 1: A co-citation network of all papers containing the title term ‘know*’ in seven prominent Anglophone philosophy journals between 1946 and 1962. The network is generated with VOSviewer.

²⁴ Moore, Plato, and Quine complete the top-10 of most-cited authors in this corpus. Moore’s influence is mostly due to his “Proof of an External World” (Moore 1939) and aforementioned 1911 lectures, which were published in 1953. Plato will be discussed below.

²⁵ Naturally, this analysis has limitations. Papers that do not include the word ‘know*’ as a title term might still be valuable contributions to epistemology. Conversely, there might be papers that contain the word ‘know*’ in the title but which are not concerned with theory of knowledge. Finally, this network is only based on an analysis of references in journal articles, not books (though it includes references to books). Still, this analysis should suffice to give a relatively reliable overview of the most-discussed epistemologists in the field in this period.

Considering the state of the field in the early 1960s, it should be no surprise that Gettier could take many of the aforementioned methodological presuppositions for granted when he wrote his 1963 paper. Though Gettier was skeptical about the JTB analysis, he did not question the assumption that epistemologists can or should find a strict definition of knowledge. Nor did he dismiss the methodological presupposition that a satisfactory definition should do full justice to our intuitions about how we would employ the concept in hypothetical scenarios. On the contrary, he took his two hypothetical scenarios concerning Smith and Jones to be enough evidence to conclude that JTB “does not state a sufficient condition for someone’s knowing a given proposition” (1963, 123). As such, Gettier can be viewed as a member of a new generation of epistemologists which had been raised with this new approach to analysis. Indeed, Gettier had been graduate student at Cornell, where Malcolm directed the graduate program. In a short autobiography attached as a preface to his dissertation, Gettier acknowledged Malcolm’s “dominant influence” on his “philosophical development” (1961, i). In fact, Malcolm is the only philosopher credited by Gettier in his biographical note, indicating that the Cornell graduate was first and foremost Malcolm’s student.

Gettier’s dissertation is not just an interesting document because it helps us understand his intellectual background. Since the Wayne State professor published only two papers in his career, it is also one of our only sources about his views and approach.²⁶ He completed his 231-page dissertation in 1961, shortly before he published his objection to the JTB-analysis of knowledge. The central topic of the thesis is Russell’s theory of belief. The dissertation develops a detailed critique of Russell’s multiple relation theory and argues that it is inadequate because it can only account for beliefs in atomic propositions. Gettier submits that it is a “necessary condition” for ‘S to believe that aRb’ that S has the quite different belief that there exists a state of affairs B(S, a, R, b); and shows that this second belief involves a propositional function, which is not allowed in Russell’s system (1961, 228). Mirroring Ayer’s and Woozley’s suggestion that belief and knowledge are not mental acts but dispositions, Gettier’s then proposes to solve Russell’s problem by getting rid of the psychologistic assumption that a belief is some type mental act. Rather than viewing ‘S believes that aRb’ as a “state of affairs observable by S and only by S”, he proposes that we can attribute the belief to S on the basis of observable facts about S, even if they do not directly involve utterances by S about aRb (ibid., 222-4; 229). Gettier, in other words, started his career with a continuation of the above-discussed crusade against the “mental act” view, specifying ways in which even Russell presupposed some form of psychologism. It is not surprising therefore, that Gettier’s 1963 paper does not even mention the option that knowledge could not be a type of belief, still considered the “traditional view” only twelve years before (Woozley 1949, 176).

²⁶ In addition to his 1963 paper, Gettier also published a short response to Ayer’s “The Concept of a Person”, in which the British empiricist proposed a physicalist view about personal identity. In his reply, Gettier develops several objections to Ayer’s view but ultimately submits that the latter’s thesis that “E is an experience of S iff there is an internal state of S’s body that is an immediate necessary causal condition of the existence of E” is “simply false”, admitting that he has no “argument to present” but can “only put [his] intuition up against that of Prof. Ayer’s” (1962/1967, 112).

8. Gettier's interpretation of Plato

Gettier cites Ayer and Chisholm as examples of epistemologists who have defended the JTB definition of knowledge. Yet he also includes a footnote suggesting that Plato “seems to be considering some such definition” in the *Theaetetus* and is “perhaps accepting one” in the *Meno* (Gettier 1963, 121fn1). Present-day epistemologists might think that this is not a particularly surprising footnote. It is quite common, after all, to refer to the tripartite analysis as *Plato's* definition of knowledge nowadays. From a historical perspective, however, Gettier's claim is remarkable. For Plato, we will show, had always been interpreted as defending the opposite view: knowledge is *not* a type of belief and we should draw a strict definition between knowledge (*episteme*) and belief (*doxa*). This interpretation, we argue, gradually began to shift in the 1950s, thereby offering further confirmation that Gettier's conception can be traced back to discussions from this period.

In the first half of the twentieth century, epistemologists and historians generally read Plato as drawing a strict distinction between knowledge and belief. In fact, many of the aforementioned “mental act” theorists used Plato to support their suggestion that knowledge is not a type of belief. Cook Wilson's view that someone “who knows does not believe at all what he knows; he knows it” was based on Plato's distinction between *episteme* and *doxa* (1926, 100; Marion 2022). H. H. Prichard used Plato's distinction between knowledge and true opinion as evidence for his own view that any attempt to analyze knowledge “in terms of something else must end in describing something which is not knowledge” (Prichard 1950, 88). And A. E. Taylor supported his claim that knowing “is not a special way of believing” by referring to Plato's distinction between two realms of being:

Plato, as I presume we all know, teaches emphatically that to know (*επιστασθαι*) and to believe (*δοξαζειν*) are radically distinct intellectual attitudes, each with its own class of appropriate objects, so that there are two distinct domains... the domain of that which is, in its own nature, adapted to be known, the *eternal*, and the domain of that which is, not from any incidental disqualification on our part, but inherently, incapable of being known, and can only be believed, the *temporal*. Only the immutable and eternal can be known in the proper sense of the word; of the temporal we have, at best, only ‘true belief or opinion’. (1929, 2, 29)

Rather than interpreting the *Theaetetus* as evidence that Plato held knowledge to be a *type* of belief, Taylor argued that the dialogue demonstrates the “impossibility of identifying knowledge with confident belief of what is true” (*ibid.*, 10). To be sure, Socrates and Theaetetus discussed the option that knowledge and belief differ because “when one knows ... one can give an account” (*ibid.*, 12) but Taylor ultimately concluded that “knowing and believing are two quite distinct attitudes of a mind to that which it apprehends” (*ibid.*, 12, 29).²⁷

²⁷ See Cornford's 1935 *Plato's Theory of Knowledge* for a similar interpretation of the *Meno*, the second dialogue Gettier refers to in his footnote: “From the *Meno* onwards, Plato has repeatedly declared that what he calls ‘knowledge’ is not a thing that can be ‘handed over’ by

Cook Wilson and Taylor were established Plato scholars who published a number of books on Greek philosophy. So it is only natural that their accounts strongly affected epistemology's reading of Plato. Even Ayer and Woozley, who opposed attempts to strictly distinguish knowledge and belief, seem to have accepted their interpretation. Woozley wrote that the "traditional view" that knowledge and belief are different in kind "derives from Plato" (1949, 176). And Ayer read Plato as a proponent of the "dangerously attractive" but misguided view that "knowledge is a relation between a mind and an object" (1947, 17). Even Ryle who, we saw, spotted the emerging trend of defining knowledge in terms of true belief with reasons, thought that this went *against* Plato's view in the *Theaetetus*:

Theaetetus [proposed that] "Knowledge is true opinion *μετα λογον*"—the jurymen have a true opinion; the eye-witness has got hold of the same truth, but with a different hold ... What does *μετα λογον* mean? Philosophically minded persons are apt to assume that it means 'with reasons' or 'with premisses'—indeed, there is quite a vogue nowadays for saying that to know is to believe something which is true and to have reasons for it. Whether this is good philosophy or not, at least Theaetetus and Socrates show no signs of having heard of it. (1952/1990, 29, my emphasis)

Theaetetus, Ryle submits, proposed that *logos* involves the correct kind of 'hold' of a truth. The difference between an eyewitness and a jury member who has listened to the witness's story, is that the former "can *tell* what occurred" whereas that the latter can only "think what occurred": they have a different kind of hold of the same truth (ibid., 29, my emphasis).

From the mid-1950s onwards, however, interpretations of Plato gradually began to shift. As more and more people began to argue that knowledge is a type of belief, epistemologists started to compare these views with Plato's analyses of knowledge, writing about the "echoes of the *Theaetetus* in modern discussions of the same subject from Cook Wilson to Ayer" (MacIver 1958, 3). Most importantly, historians began to develop alternative readings of the dialogue, suggesting that Plato ultimately *accepted* Theaetetus's proposal that knowledge is true belief with an account. Robert Cross, for example, reads the dialogue in a different way, suggesting that Plato only rejected Theaetetus's *application* of the view that knowledge is a type of belief:

Socrates ... it is interesting to note, remarks (202d) that the statement (that true belief with a *logos* is knowledge) taken just by itself may well be satisfactory; for, he asks, how could there ever be knowledge apart from a *logos* and right belief? He objects, however, to the 'most ingenious' feature of the theory, namely, that ... elements are unknowable, while ... complexes are. (Cross 1954, 434)

one person to another. The true objects of knowledge must be directly seen by the eye of the soul" (1935, 135).

Socrates, Cross argues, raised a number of problems for Theaetetus's views about the types of *objects* we can and cannot know. But he does not reject Theaetetus' proposal that knowledge is true belief with an account itself.²⁸

The most elaborate attempt to escape the traditional reading was developed by Norman Gulley, who published *Plato's Theory of Knowledge* in 1962, the year Gettier wrote his seminal paper. In his book, Gulley introduces a distinction between 'expert knowledge' and 'ordinary knowledge' and uses it to explain why Plato appears to accept a JTB-style definition in some dialogues but not in others. In *The Republic*, Gulley argues, Plato draws a rigid distinction between knowledge and belief because this dialogue is concerned with expert knowledge (i.e. philosophical knowledge) of the fundamental nature of reality (i.e. knowledge of Forms). In the *Meno* and the *Theaetetus*, however, Plato is concerned with everyday forms of knowledge, compatible with how we use the concept in everyday life (e.g. knowing the way to Larissa):

The distinction made [in the *Meno*] between true belief and knowledge ... must not be confused with the distinction made later in the *Republic*... where the distinction between belief (*doxa*) and knowledge is said to imply a difference in *kind* between the objects of knowledge (identified with Forms). This latter sense of 'belief' is a specialised sense which Plato continues to use in later dialogues side by side with the non-specialised sense which we find in the *Meno*. The distinction between knowledge and belief in the specialised sense is primarily a distinction between *apriori* and empirical knowledge ... but the distinction between them in the *Meno*, and later in the *Theaetetus* ... assumes the same kind of distinction as does modern English usage, there being no implication of a difference in kind. (1962, 13-4)

In drawing this distinction, Gulley creates room for a new reading Plato's theory of knowledge. If we just focus on knowledge in an *ordinary* sense, we can define it as true belief with an account. Indeed, Gulley interprets the *Meno* as an argument for the claim that true belief alone "is unstable, since it is never able to meet criticism by an explanation of the *grounds* for its truth". To acquire knowledge, Gulley argues, one's beliefs "must be 'tied down' by 'a chain of causal reasoning' or by 'thinking out the reason why'" (ibid. 14).

It is difficult to reconstruct exactly who influenced Gettier's reading of Plato's theory of knowledge. It is not unlikely, though, that he took his reading from historians like Cross and Gulley. Interpretations of Plato began to shift and it is likely that Gettier's footnote—despite its still cautious formulation ("Plato *seems* to be considering some such definition at *Theaetetus* 201, and is *perhaps* accepting one at *Meno* 98")—helped to further promote this reading. By the late 1960s, Plato had become a standard reference among post-Gettier epistemologists. Chisholm's *Theory of Knowledge* presented the tripartite analysis as Plato's definition (1966, 5-7) and Risto Hilpinen classified the question "What must be added to true opinion to yield knowledge" as the "classical approach to epistemology", referring to Plato's discussions in the *Theaetetus* and the *Meno* (1970, 111, 127n7).²⁹

²⁸ Interestingly, Cross co-authored a book on Plato's *Republic* with Woozley in 1964.

²⁹ See also Armstrong (1973, 137).

9. Conclusion

Philosophers typically trace the development of modern analysis of knowledge to Gettier. Indeed, the term ‘post-Gettier epistemology’ suggests that the whole tradition began with his three-page paper. Yet research programs do not arise out of thin air. It is an historical puzzle how Gettier’s conception of epistemology could have emerged in an environment in which logical positivists, Cambridge analytic philosophers, pragmatists, and ordinary language theorists advocated alternative conceptions of analysis. This paper argued that Gettier’s methodological presuppositions can be traced to British discussions about knowledge and analysis. I have reconstructed a range of philosophical debates and methodological perspectives and argued that they gradually transformed epistemology’s self-conception. Whereas early twentieth-century philosophers presupposed a ‘mental act’ view and advocated a strict distinction between knowledge and belief, epistemologists began to view knowledge as a type of belief with some additional conditions attached. Most importantly, they began to develop a new approach to analysis, reinterpreting epistemology as the search for necessary and sufficient conditions for ordinary epistemic concepts that capture our intuitions about how we use these notions in a variety of hypothetical scenarios.

In reconstructing these debates I did not attempt to find or identify a single philosopher who *can* be dubbed the ‘true’ founder of mainstream epistemology. This is an intentional choice: research programs simply do not emerge *ex nihilo*. In historical investigation there are no smoking guns. Rather than search for a new ‘founding father’, I have identified a variety of events, discussions, and philosophers that have contributed to the rise of mainstream epistemology in one way or another: Russell’s and Moore’s discussions of propositional knowledge, the post-war knowledge boom, the opposition to logical positivism, the Oxford discussion group, Malcolm’s vignettes and ordinary-language interpretation of common-sense epistemology, Woozley’s rejection of the strict distinction between knowledge and belief, Ayer’s dispositional conception of knowledge, Gettier’s educational background, and the shifting interpretation of Plato’s dialogues. Naturally, I do not want to suggest that this is a complete overview of the events that contributed to the rise of mainstream epistemology. I did not have space, for example, to discuss debates about Ryle’s *Concept of Mind* and C. I. Lewis’ theory of knowledge, or the development of Chisholm’s conception of analysis. Still, I believe that my discussion demonstrates that both the methodological and the theoretical presuppositions comprising Gettier’s research program—e.g. that epistemologists should find necessary and sufficient conditions for epistemic concepts; that they should focus on everyday notions such as ‘knowledge’ and ‘justification’; that knowledge is a type of belief; that we should focus on propositional knowledge; that we can test a definition by consulting our intuitions about how we would employ the concept in range of hypothetical scenarios—were once contentious proposals. The 1950s, therefore, are not just an interesting period for historians who want to reconstruct the development of mainstream epistemology. They are also a gold mine for epistemologists who want to explore alternative conceptions of knowledge and analysis.

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