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Reviewed by David E. Dunning

Review: *John Venn: A Life in Logic*, by Lukas M. Verburgt

David E. Dunning

In publishing the first comprehensive study of the Victorian logician John Venn (1834–1923), for whom the famous style of diagram is named, Lukas M. Verburgt has addressed an undeniable lacuna in the historiography of logic. While correcting this omission would have been sufficient justification for the book, Verburgt has ambitiously—and successfully—taken the opportunity to produce a work of wider significance and interest. Readers with no prior investment in Venn will find here a compelling and thoroughly researched illumination of numerous overlapping currents in Victorian intellectual and religious life. And, most relevantly to readers of this journal, Verburgt makes a strong case for understanding the roots of analytic philosophy at Cambridge as reaching considerably deeper than G. E. Moore and Bertrand Russell’s celebrated turn-of-the-century milieu.

The lack, until now, of extensive scholarly interest in Venn is symptomatic of his curious position in the history of logic and philosophy. A number of articles and chapters have investigated various aspects of Venn’s work over the years; his importance in his specific context is well established.¹ But he was not a major philosopher, and while he was a major logician in his day, the logic of his day has not captivated later logicians. Appearing between the landmark contributions of Mill and Boole on the one hand, and the watershed of *Principia Mathematica* on the other, Venn’s work served to refine and institutionalize approaches that

would soon be superseded. Verburgt argues, however, that attending to Venn’s logic enables us, first, to appreciate how his synthesis of disparate predecessors produced “a more or less coherent whole,” and second, to understand “a rather confusing period in British and Cambridge philosophy” (xx). Specific doctrines and techniques would fall out of favor, but it was Venn and his colleagues who built the Cambridge context in which British idealism and the analytic reaction against it would arise. Only by taking seriously Venn’s daily life and the history of university life more generally do we arrive at an adequate appreciation of his significance in the practical and institutional history of philosophy.

The book is organized chronologically, with chapters varying in their balance of biographical and theoretical contributions. Chapters 1–3 are primarily biographical, narrating Venn’s childhood and upbringing in a prominent Evangelical clan (chapter 1), his time as a student at Gonville & Caius College, Cambridge (chapter 2), and his brief, unsatisfying experience as an Anglican curate in the years following his graduation (chapter 3). The emphasis throughout is on the pervasive influence of his family’s religious attitudes on his formation and early life. “The most important fact about the life of John Venn was that he was born into the Venn family,” begins chapter 1, and Verburgt goes on to substantiate this claim as no mere hyperbole. His father Henry loomed large as a model of the clerical, Evangelical life. John matriculated at Caius because it was known at the time as the Evangelical college, and his association with this institution would become an even more firmly rooted aspect of his identity than the faith from which he would gradually drift. That drifting began precisely when he took up clerical work, finding himself on the one hand ill-prepared for pastoral work by his education, and on the other hand drawn to provocatively liberal viewpoints in his private reading. Verburgt emphasizes that Venn’s trajectory was unlike the typical Victorian “crisis of faith” insofar as he lived comfortably enough with this tension while continuing

¹Key references in the existing literature on Venn include Salmon (1981); Kılıç (1999); Wall (2005, 2006, 2007). The present reviewer analyzes Venn’s overarching intellectual stance in Dunning (2021).

to identify as an Evangelical. Venn's Evangelicalism was a holistic emotional commitment rather than an intellectual belief; as such, it could accommodate quite a bit of reading, conversation, and thought that was doctrinally incompatible with Evangelical tenets. In 1862 he concluded that he could no longer remain in his curacy, but his departure was not a split from faith more generally. He returned to Caius as Catechist and continued both his liberal reading and his public association with various Evangelical parties. Chapter 4 considers again Venn's student and curate years from the perspective of his philosophical development, in which his discovery of John Stuart Mill was the major formative event, while Henry Thomas Buckle's *History of Civilization in England* (1857–61) provoked him to write what became his first publication. His essay "Science of History," appearing in *Fraser's Magazine* in 1862, criticized Buckle's deterministic, purportedly scientific history by arguing that even if it were theoretically possible to predict human actions, the publication of such predictions would constitute a new influence to which human actors might respond in ways contrary to the original predictions. Therefore, Venn argued, there could never be a social physics truly analogous to the physical sciences.

Chapter 5 paints a rich picture of the reforming context Venn entered upon his return to Cambridge, as the Moral Sciences Tripos (which included the subjects of logic and mental philosophy) took shape and chipped away at the curricular dominance of Mathematics and Classics. Among other contributions to the gradual reconstruction of the university in a more modern form, Venn introduced intercollegiate lectures, opening his halls to students from outside Caius. When Caius removed the celibacy requirement for fellows, Venn was among the first to marry. Like the man she married in 1867, Susanna Carnegie Venn (née Edmonstone) came from a respectable clerical Evangelical family, but was drawn to moderately more liberal visions of life. Together the Venns were active in the gradual opening of Cambridge education to women, though at least John would grow

more conservative on questions of gender and education as he aged. Finally, chapter 5 also describes Venn's involvement in the Grote Club and the Eranus Society, suggesting that these social-cum-scholarly clubs were instrumental in stimulating both the research and the friendships that helped form "the local background of what is today known as Cambridge analytic philosophy" (100).

Chapter 6 offers Verburgt's account of *The Logic of Chance* (1866), Venn's first and best-known book. Verburgt emphasizes Venn's novelty in framing probability as "not merely mathematical but also philosophical" (101). *The Logic of Chance* is generally considered the first systematic account of the frequentist view of probability, which holds that probabilities are relative frequencies of outcomes in a sufficiently long series of trials. This purportedly objective conception stands in contrast to the so-called subjective interpretation of probability as our quantified degree of belief that a given outcome will occur. A thorough overview of the work is accompanied by Verburgt's original claim that the position Venn introduces is not just frequentism but more specifically hypothetical frequentism, which defines probability counterfactually as "the limiting relative frequency that it would have if it would appear an infinite number of times with no changes in any of the relevant circumstances" (110). This view is typically attributed to Richard von Mises's mid-twentieth-century articulation.

Chapter 7 considers Venn's religious thought during the late 1860s and early 70s, a period in which the tension grew between his private beliefs and ongoing public association with Evangelicalism. He continued contributing anonymous Evangelical polemic to the *Christian Observer* (edited by his father) wherein he rehearsed arguments against positions that he in fact held (p. 130). He also occasionally took on the role of religious thinker under his own name: *Logic of Chance* included arguments that probability theory did not justify atheism, and was irrelevant to assessing something as thorny as testimony of miracles. It

also contained the seeds of an idea he developed more fully in his 1869 Huslean Lectures at Cambridge, that belief—whether religious or scientific—should be understood as a state of readiness to act on a given proposition. Verburgt observes that Venn’s first statement of this notion “anticipat[ed] the key pragmatist doctrine of habit by several years” (138). In cultivating these attitudes, Venn moved more solidly into Broad Churchmanship, without ever declaring as much explicitly while his father was alive.

Chapters 8–11 cover Venn’s mature career as a logician. Chapter 8 provides an introduction to nineteenth-century British logic, with special attention to Boole and Mill, followed by a brief account of each of Venn’s papers from the period 1874–1880. Verburgt characterizes Venn’s relation to his logical context as an effort to reconcile Mill’s materialist inductive approach with the conceptualism of Boolean algebraic deduction—a tension that “nowhere in his entire oeuvre did Venn directly confront, let alone resolve” (176). In his 1881 *Symbolic Logic* (chapter 9), Venn attempted to reconstruct algebraic logic in a materialist rather than conceptualist mode, attending closely to the existential import of propositions. This chapter contains a detailed discussion of what is by far Venn’s best known contribution, his diagrams, as well as his ambivalent engagement with logic machines. Verburgt also emphasizes here Venn’s remarkably thorough presentation of little-known logicians working prior to Boole, which he characterizes as “more than a bibliographic feature” in that it “made [Boole’s] system part of a long lineage” (198).

Chapter 10 describes (to the extent sparse sources permit) the long road to Venn’s 1883 resignation of Holy Orders, his and Susie’s religious life after his return to the laity, and his wider professional interests in the 1880s. Verburgt characterizes Venn’s career as a sort of transitional one in the history of the professionalization of philosophy at Cambridge insofar as he pursued it as a modern job rather than a passion, but lacked the disciplinary specialization that would later characterize fully professional

academics. He discusses Venn’s 1888 revisions of *Logic of Chance*, his engagement with recent statistical work by Galton and Edgeworth, and his involvement in establishing psychophysical and anthropometric laboratories at Cambridge. The connection to Galton’s eugenic project brings us a rare glimpse of Venn’s views on race and empire: e.g. he approved of the presence of small numbers of Bengali students at Cambridge, though he worried that if, through merit or otherwise, they were eventually to become the majority, they might lack the “physical vigor” involved in “the foundation and retention of empires” and thus be poorly suited to the government posts they were intellectually equipped to attain (quoted on 241). A clearer picture of the problematic aspects of Venn’s thought would be desirable, though as Verburgt notes, sources revealing such opinions are sparse.

Chapter 11 presents Venn’s final substantial contribution to logic, *Principles of Empirical or Inductive Logic* (1889). Acknowledging that the book was rightly criticized for a lack of organization and that it cannot be called directly influential, Verburgt argues that Venn’s *Principles* is a rich source insofar as it represents an early attack on the “problem situation” of a felt need to reconcile British empiricism, algebraic logic, and post-Kantian scientific methodology (246). Venn’s solution lay in attempting to defuse the tension between scientific knowledge and everyday life by linking belief and action in a manner that Verburgt deems “at least protopragmatist” (265). He stops short of crediting Venn with decisively influencing either the American pragmatists or the Cambridge philosophers who took an interest in them after World War I, but notes that all of these writers read him, which at the very least “problematizes the idea of pragmatism as a uniquely American invention” (265).

Chapter 12 and the epilogue assume an elegiac tone as they present Venn’s later years; this tone is one Venn himself adopted in his personal reflections during this period. Toward the end of the nineteenth century, Venn developed a strong interest in college and family history. He dove into meticulous archival re-

search on the numerous little known past members of his college and university through the centuries, and commemorated his ancestry in works of familial history. As a devoted chronicler, he worked to steward the memories of the two institutions that had molded his life. His income from his fellowship, teaching, and examining was sufficient that he never needed to pursue history as a profession, though as Verburgt observes, “in terms of rigor and methodology, Venn perhaps had more in common with the professionalism of the research-based historians of the younger generation” than with those of his own (270). There is a brief suggestion that behind Venn’s pursuit of comprehensive records of entire populations, there “stood an analytic approach to history, informed by methods and techniques that Venn advocated as a professional logician and amateur in the fields of statistics and anthropometry” (279); as I have argued elsewhere, my view is that the underlying continuity of Venn’s interests merits still greater attention (Dunning 2021). That cohesion notwithstanding, attitudinal shifts in Venn’s later years are indisputable. Whereas he had once been a zealous university reformer, in his final decades he settled decisively into nostalgia for the vanished Victorian world and even for the confidently faithful world of his Evangelical predecessors, though that world had never been his. He indeed lost interest in logic per se, while persisting in diligent historical research almost up to his death in 1923.

How does our view of this understudied but not unknown figure change in light of a book-length study? Not drastically: Verburgt does not demolish the picture of Venn available in the smattering of existing articles, but he enriches it. Taking the time to consider Venn’s comparatively well-known *Logic of Chance* alongside his Evangelical background *and* his formal logic *and* his empiricist philosophy of science *and* his late turn to historical research reveals a rigorous, expansive mind, albeit one whose expansiveness was forcefully channeled by the constraints of the loyalties Venn inherited, questioned, but never truly abandoned. This portrait is consistent with prior sketches but reveals a com-

plete, arguably paradigmatic Victorian intellectual in a way no short study of a given work or theme can.

It is therefore perhaps the wrong question, how this biography changes our view of Venn; Verburgt’s more significant accomplishment here is to change our view of Victorian intellectual history and the history of philosophy (broadly construed) at Cambridge in particular. It is widely understood that academic life professionalized considerably during Venn’s time, but less often are the philosophical ramifications of that historical process explored as clearly as they are here. Verburgt deftly portrays the deep entanglement of Venn’s thought with the shifting nature of the remunerated work that he and his peers performed. In particular, the compelling suggestion that these institutional changes created the pedagogical environment in which one major strand of analytic philosophy would be born—during Venn’s lifetime, though after his own interests had shifted to history—warrants serious consideration by readers of this journal. By establishing a surprising continuity between British Evangelicalism and analytic attitudes and practices (if not analytic philosophy per se) at Cambridge, Verburgt also indicates a sense in which a tradition famous for its hardnosed naturalism emerged in part from devout efforts to rationally ground, perhaps modify, but ultimately accommodate Christian faith in the Victorian era.

This strong contribution will long remain the standard biography of Venn. It is to be hoped that scholarly engagement with Verburgt’s interpretation of Venn’s place in the prehistory of analytic philosophy—an intellectual history that cannot be severed from cultural, religious, and institutional histories—is robust and sustained.

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