



Richard Bradley's *A Short Historical Account of Coffee* (1715) and *The Virtue and Use of Coffee* (1721)

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ABSTRACT

Richard Bradley published *A Short Historical Account of Coffee* in 1715, an extremely rare book of which only three copies are known. A revised version of the book, entitled *The Virtue and Use of Coffee*, was published in 1721. Bradley's 1714 trip to the Physic Garden in Amsterdam, where he examined two coffee trees, led to his two coffee books, whose similarities and differences, including the evolution of the two different coffee engravings, are discussed in detail. This article reveals insights into the milieu in which Bradley lived, his interactions with other members of the Royal Society, and the reasons why his 1715 book is so rare. The various introductions of coffee plants to England in the late 17th and early 18th century are discussed, as well as Bradley's skirmish with James Douglas, who was critical of Bradley's coffee work.

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Introduction

The population of London from 1700 to 1740 fluctuated around 675,000 (Raven 2007) and at the time, a common London feature was the coffeehouse. Among the clients of the Grecian coffeehouse in Devereux Court were Sir Isaac Newton and other Fellows of the Royal Society (Aitken 1898), which in 1715 included, among many others, the renowned collector Sir Hans Sloane, the architect Sir Christopher Wren, the astronomer Edmund Halley, and three Fellows with a deep interest in botany, Richard Bradley, James Douglas, and James Petiver (Anonymous 1715). Of these, Sloane, Bradley, and Douglas published landmark contributions related to coffee (Sloane 1694; Bradley 1715, 1721a; Douglas 1725, 1727a, 1727b).

Richard Bradley's (c. 1688–1732) early life, including his birthyear, remains shrouded in mystery (McDonald 1908), although Coulton (2005) has unearthed evidence indicating that by 1715, and until close to 1727, he served in Queen Anne's Royal court as a Musician-in-Ordinary. Bradley is believed to have been ca. 26 years old (Walters 1981) when he was

elected a Fellow of the Royal Society on 1 December 1712 (Thomson 1812), although assuming he was born in 1688, Egerton (1970a; 1970b) believes he was ca. 26 years old in 1714. On 10 November 1724, Bradley became the first Professor of Botany at the University of Cambridge (Clark 1904). Bradley was an extremely prolific writer, publishing 24 books between 1714–1732 (Thomas 1952), and with an annotated bibliography consisting of 140 entries (Edmonson 2002). His interest in coffee while visiting the Physic Garden in Amsterdam resulted in two books which are the focus of this paper.

Bradley's trip to Holland

The apothecary James Petiver (c. 1665–c. 1718), known for his large collection of natural history specimens, provided letters of introduction for Bradley's visit to Holland in 1714 to collect botanical specimens, among others (Coulton 2005; Egerton 2006). Bradley arrived in Holland on May 9, first visiting Leyden then reaching Amsterdam on May 12 (Henrey 1975), where he visited the Physic Garden and examined two large coffee plants

(Bradley 1715, 1721a), as well as many other plants. During his stay in Holland he met the botanists Caspar Commelin (1688–1731) and Herman Boerhaave (1668–1738), the human anatomist and botanist Frederik Ruysch (1638–1731), and the naturalist and illustrator Maria Sibylla Merian (1647–1717) (Henrey, 1975).

Prior to traveling to Holland, Bradley already had an indirect relationship with Merian, via Petiver. In a letter to Petiver written sometime between 1711 and 1714, Bradley wrote “please to intimate that what draughts of Ficoides are done by Mad^m Marian may not exceed the quarto size” (Henrey, 1975; Wirth, 2007). Bradley was referring to a possible contribution by Merian to his planned book on succulents (Bradley, 1716-1727). Wirth (2014) states “it seems possible that Merian did such a painting for Bradley,” i.e., plate 14 in Bradley (1716-1727), representing the pink leaved fig marigold (*Mesembryanthemum* sp.). Bradley returned to London “around the end of October 1714” (Egerton, 1970a; 1970b) or “sometime between late October and early December” (Coulton, 2005).

Bradley’s 1715 coffee treatise

A Short Historical Account of Coffee, published as a 30-page-long duodecimo that lacks a publication year, includes the first colour depiction of a coffee shoot with leaves, flowers, and fruits (Fig. 1). The book was presented by Robert Balle (ca. 1640–ca. 1734) at a meeting of the Royal Society held on 28 April 1715: “Mr. Balle presented from Mr. Bradley a printed account of coffee, with the figure of the plant, its flowers and berry taken from the life” (Journal Book, 1715). The notes for the meeting begin with “The President in the Chaire”, with the President being Newton. The book is in the collection of the Royal Society (Bradley, 1715) and contains two inscriptions: one handwritten (“Liber Societatis Regalis ex dono authoris”) and the other stamped (“Soc. Reg. Lond. ex dono Auctoris”), both in Latin indicating that the book was a gift of the author.

In a 24 October 1714¹ letter to Petiver sent from Amsterdam, Bradley mentions that he drew several trees with the fruit and/or flower, including nutmeg, clove, and cinnamon, but when it comes to coffee he only mentions “the coffee with the fruit & flower”, i.e., he does not state that he drew the tree. Therefore, it is reasonable to assume he was referring to a drawing that would eventually be used in the frontispiece, depicting a coffee shoot with leaves, flowers, and fruits.



Figure 1. Unsigned frontispiece in the Royal Society copy of *A Short Historical Account of Coffee* (Bradley, 1715). Note misspelling of coffee and fact that what is being depicted is not a tree. ©The Royal Society; Image no. Rs.10234.

On 4 December 1714, Bradley wrote to Petiver:

I would be glad you would make me acquainted of what you know concerning the coffee tree as well the authors and the times they writt, as the name you think most proper for it. & if your graver can spare time enough from your works, would have him grave me one quarto plate which I have design'd ready for him the sooner he does it the better (Henrey, 1975).

Even though it is unclear what he meant by “the name you think most proper for it”, it likely has to do with wanting to know what descriptive current Latin name he should use. This is addressed in Bradley (1715), where he also writes:

Dr. Comelin, Botanick Professor at Amsterdam, in his lectures on plants, places this tree among the Jessamines, and compares the leaf to that of our common chestnut; but as that gentleman has not yet printed any account of it, I shall not therefore attempt to publish the name at large, which he has given it. He is

undoubtedly in the right to class it with the Jessamines, but I rather joyn in opinion with my learned friend Mr. Petiver, that the leaf is more like to that of the *Laurus Vulgaris*, or common Bay, but larger.

In a 20 or 27 December 1714² letter to Petiver, Bradley wrote:

I desire youl assist the Dutch Doctor in the Physicall uses of coffee mencon'd by M.^r Ray for he is not master of proper terms for that purpose[.] I have done what is necessary from that author relating to names and descriptions – I desire you'l give a flourish in short concerning the distempers he mencons with an acc.t of Mons.^r Dufours experiment about the [?] subtilties of its volatile spirit.³

The use of “Dutch Doctor” in the letter was a self-reference based on Bradley’s pretending to be a medical doctor while in the Netherlands (see Egerton 1970a). Bradley was also referring to John Ray’s *Historia Plantarum* (Ray, 1693) and some of Ray’s suggested uses of coffee as a medical remedy are included in Bradley (1715). The reference to Dufour’s experiment (referred to as Du Four in the book) was related to the preparation of coffee and is addressed in Bradley (1715), where he acknowledges Petiver’s help “... an ingenious friend of mine observes, that boiling of it evaporates too much the volatile spirits for which reason he advises us to pour boiling water up on the powder ...” Philippe Sylvestre Dufour (1622–1687) was a Frenchman and the author of the hugely popular *De L’Usage du Caphé’, dv Thé, et Dv Chocolat* (Dufour, 1671), which went through several editions and was translated into English (*The Manner of Making of Coffee, Tea and Chocolate*), German, and Latin (see Hünnersdorff and Hasenkamp, 2002).

In another undated letter, probably written in January 1714/15⁴, Bradley once again asked Petiver about an engraver: “I desire the graver may work his best on the coffee & make no shades in it but what he sees in the originall pray let him keep it clean as well ...” The engraver in question is Sutton Nicholls (1668–1729), who did numerous engravings for Petiver (e.g., Petiver 1767). Both Petiver and Nicholls had their shops at Aldersgate Street (Coulton, 2005). An uncoloured engraving of a coffee shoot drawn by Bradley and engraved by Sutton Nicholls (Fig. 2), with his signature on the lower right corner, is bound with *The coffee-*

mans granado discharged upon the maidens complaint against coffee at the British Library (ESTC R171418). The engraving has the unfortunate distinction of exhibiting a typographical error in its title, i.e., “The Coffe Tree” (Fig. 2; notice missing “e”). Nicholls’s signature does not appear in the engraving included in Bradley (1715) but the typographical error is indeed included. This means that Nicholls’s signature was removed, and we could hypothesize that this was perhaps due to Nicholls not wanting his name associated with a book about coffee in which the only engraving had a serious error, most likely perpetrated by Nicholls himself. Both Bradley and Petiver were obviously familiar with coffee and would not have misspelled it. On the other hand, why wasn’t the typographical error also removed before printing? Another obvious error is that the engraving does not depict a tree, as stated in its title, but a shoot. The figure in the engraving is referred to as a tree on two additional occasions (Bradley 1715): (1) The title page, “To which is prefix’d, An exact Figure of the Tree, Flower and Fruit, taken from the Life; done at Amsterdam;” and (2) in pages 1–2:

And again, what yet prompts me further to this Undertaking, is the Opportunity I have at this time to present the World with a perfect Figure of the *Tree* that produces this celebrated *Fruit*, which is not done here by any random Guess, or according to the uncertain Report of others, but I myself have design’d it from the Life.

Repeatedly referring to a figure as depicting a tree, when it is only a shoot, is a clear mistake, which combined with the typographical error on the engraving, might have led to its distribution being curtailed thereby explaining its rarity. In the 1721 edition of the book (discussed below), the coffee shoot has been replaced with a figure depicting a tree, and the typographical error has been corrected.

In the same undated letter⁶, Bradley also writes:

by the inclos’d you will see what to add[.] I desire you will put a name to it of your own I finish it as soon as you can – if you don’t like my description alter as you think fit.

Even though it is not clear what he meant by “putting a name to it of your own”, it is possible that he was asking for a possible title for the

book. The request for Petiver to alter “my description” likely refers to Bradley’s description of the coffee tree (Bradley, 1715).



Figure 2. Coffee shoot engraving with Sutton Nichols signature in the lower right corner. The engraving is bound together with *The coffee-mans granado discharged upon the maidens complaint against coffee* housed at the British Library⁵ (ESTC R171418). Courtesy of the British Library.

Therefore, it is evident that that by December 1714/January 1714/15, Bradley had not finished writing the book as he was still in need of information and was requesting Petiver’s editorial assistance. He also had a coffee drawing he wanted engraved as soon as possible. This is noteworthy for two reasons: (1) In the “Preface of the Publisher” (Bradley, 1715), Emanuel Matthews writes: “The following Pages were Composed by Mr. Bradley at Amsterdam...”; and (2) Bradley (1726) states that the book had already been printed while he was in Holland: “... my Treatise of Coffee publish’d in the Year 1714, when I was in *Holland*...” Why would Bradley and Matthews pretend the book was written in Holland? Could it have been a marketing attempt to increase the appeal of the book?

Bradley’s (1726) certainty about publication “in the Year 1714” would hypothetically mean that the book was printed by March 24, which would have been the end of 1714 (at the time, the start of the legal year in England was March 25th). Publication was followed by Balle’s

presentation of the book to the Royal Society on 28 April 1715 (Journal Book, 1715), and a 30 April 1715 advertisement for the book, with a price of 6 pence, in page 2 of the *The Post-Man and the Historical Account*, published in London. Therefore, using the Old Style for calendar dates, the publication year would be 1714, and using the New Style (which we have chosen to use in this paper), with the year ending on December 31, the publication year would be 1715. Still, why was the publication year missing from the title page? It is unlikely to have been due to human error as of 55 titles in which Matthews had a role as publisher between 1712 and 1734, we couldn’t find any other book missing the publication year. It is also noteworthy that all of Matthews books deal with religious topics, with the exception of Bradley’s book and a 1722 book by B. Coleman, entitled *A Narrative of the Method and Success of Inoculating the Small Pox in New England*.

The book is “exceedingly rare” (Thomas, 1952), with only three copies known: Royal Society (London), Library of Congress (USA), and The University of Sydney (Australia). The copy at the Library of Congress was gifted in 1939 to the library by Arvill W. Biting (1870–1946) and the copy at The University of Sydney, which was acquired in 2005, matches a book advertised in two Maggs Bros. Ltd. catalogues, as it only has a portion of the coloured plate and has a “strip cut from foot of title-page” (Anonymous, 1954, 1960). Furthermore, the numbers 263 and 869 are pencilled in on the paste-down endpaper, corresponding to Maggs Bros. Ltd. catalogue No. 869, lot 263 (Anonymous, 1960). The University of Sydney copy also has a signature (“Byerley”?) on the front free endpaper. The frontispiece in the copy at the Library of Congress is uncoloured, and the one at the University of Sydney Library is coloured but is missing the upper and lower parts and has a red double line border which is missing in the Royal Society copy. It is very likely that Bradley himself coloured the frontispiece in both the Royal Society copy and the University of Sydney copy, seeing he had a talent for drawing and painting (Henrey, 1975; Coulton, 2005).

Edmondson (2002) states that in addition to the Royal Society, the book is in the collection of the Wellcome Institute for the History of Medicine Library, but this appears to be incorrect as it is not listed in their library catalogue. He also states that the plate in the 1715 book is “sometimes coloured” but the only other copy he mentions is the one at the

Wellcome Institute, which as stated above, appears to be incorrect. Edmondson (2002) also mentions that an undated second edition under the title *A Short Historical Account of Coffee* is available at the Library of Congress and Royal Society, but the only book that could be considered a second edition is Bradley's *The Virtue and Use of Coffee*, published as an octavo in 1721 (discussed below). Bradley (1726) refers to his 1715 book as "the first Edition of my Treatise of Coffee." Finally, Edmondson (2002) also states that the purported second edition, a duodecimo like the 1715 book, includes three plates. This might be due to a confusion with the description "3 p. l." (preliminary leaves) in the Library of Congress catalogue for the 1715 edition, although Mr. Edmondson would surely have known that. There never was a second duodecimo edition of *A Short Historical Account of Coffee*. In 1774, John Ellis (c. 1710–1776) published a book with a title similar to Bradley's, i.e., *An Historical Account of Coffee* (Ellis 1774), which includes an engraving based on a drawing by Simon Taylor (1742–c. 1796), depicting a coffee shoot, with leaves, flowers, and fruits. Even though Hünnersdorff and Hasenkamp (2002) state that Ellis's book is "the first English book with a coloured illustration of the coffee plant", this honour belongs to Bradley (1715).

Thomas (1952) described Bradley's book as "...a little book about coffee, its origin and use, which was printed in London, probably for private circulation." Thomas (1952) does not mention the basis for the "private circulation" hypothesis, but we suspect it might have been based in the "Preface of the Publisher" (Bradley, 1715): "The following pages were Composed by Mr. Bradley at Amsterdam for the Satisfaction of some of his Acquaintance in England...". Private circulation could explain the book being "exceedingly rare" (Thomas, 1952), but if it was printed for private circulation, why post an advertisement for the book in *The Post-Man* (see above)? Furthermore, the second page of the Preface (Bradley, 1715) states "... his Friends have thought it convenient to oblige the World with it, believing it might meet with a favourable Reception" which negates the private circulation hypothesis. In addition, it is highly unlikely that Bradley would have incurred the costs of having the book published for private circulation considering the cost and the fact that he had monetary problems throughout his life (Henrey, 1975; Coulton, 2005). It is also worth considering whether the books were consumed in a fire (or other disaster) before distribution.

Referring to Bradley (1715), Robinson (1893) wrote "I am not aware that the original book is still in existence", while Ukers (1922) stated "all trace of which appears to be lost", and Wellman (1961) dating the book to 1716 says "His book is not well known but it is important and came before Linnaeus's." The London bookseller Dulau & Co. posted a "Books Wanted to Purchase" ad for Bradley's book in "The Publishers' Circular" (Anonymous, 1892). Maggs Bros. Ltd. offered a copy of the book (Anonymous, 1954, 1960) and as mentioned above, this is the copy at The University of Sydney. Hünnersdorff and Hasenkamp's (2002) comprehensive coffee bibliography only lists the Royal Society copy. Coulton (2005) refers to the book as "amongst the very rarest of Bradley's many publications: only two examples are known to be preserved," while Ellis (2006) states that "no more than two copies survive."

The Folger Shakespeare Library coffee drawing

The Folger Shakespeare Library in Washington DC (USA) houses 82 copies of Shakespeare's 1623 First Folios and is renowned for being the largest collection of Shakespeare-related material in the world⁷. An unusual item in the collection is an 18.4 x 12.7 cm pen and brown ink drawing entitled "The Coffee Tree," and signed "T. Harmer" (Fig. 3). Underneath the signature, what appears to be an original date of 1730 has ink over the zero, changing it to a nine. The drawing is a copy of Nicholls engraving used as the frontispiece in Bradley (1715) but with the word coffee correctly spelled. The Folger Shakespeare Library catalogue description does not identify the drawing as being a copy of Bradley's frontispiece. The Folger Shakespeare Library drawing was found inside a copy of Pomet's (1737) *A Compleat History of Druggs*, purchased by the Folger Shakespeare Library in 1953 from Francis Edwards, Ltd., a bookseller in London. The drawing has no resemblance whatsoever to the coffee engraving (plate 47) in Pomet's book. We have been unable to locate any other drawings or any engravings by T. Harmer, although a paper written by Thomas Harmer (1767) in *Philosophical Transactions* makes reference to Bradley, but that is as close as we have been able to connect a Harmer with Bradley.



Figure 3. Pen and brown ink coffee shoot drawing (18.4 x 12.7 cm) signed by T. Harmer and based on the frontispiece in Bradley's 1715 book. Courtesy of the Folger Shakespeare Library⁷ (Folger Digital Image Collection #34623).

Bradley's second treatise on coffee

In 1721, Bradley published *The Virtue and Use of Coffee with Regard to the Plague, and other Infectious Distempers* (Bradley, 1721a), printed by E. Matthews and W. Mears, with a price of six-pence listed on the title page. In the Preface, Bradley writes "And for the Satisfaction of the Curious, have prefix'd a Figure of the Tree, Flower, and Fruit, which I delineated from a growing Tree in the Amsterdam Gardens" (Fig. 4). It is important to note that he refers to the illustration as a tree, which in this case it is indeed, in contrast to the illustration in Bradley (1715) also referred to as a tree but consisting of a shoot (see above). In pages 14-15, he expands on the figure using text that is almost identical to that in Bradley (1715):

In the Physick-Garden of Amsterdam are two Coffee-Trees above seventeen foot high, which have been for some time in a bearing State, and have, at most Seasons, Fruit upon them; from one of these Trees I design'd the Figure prefix'd. to this Treatise, which in every Point resembles the Branch I took it from, except only the Size,

which ought to be one third part bigger to make it equal with the Life.

This was a grave mistake, as Bradley should have deleted "which in every Point resembles the Branch I took it from ..." because what he is depicting is a tree, and not a shoot. He might have missed this because he was extremely busy, publishing three books in 1721 (Bradley, 1721a; 1721b; 1721c). It is worth noting that the coffee trees in Amsterdam were the famous progenitors of the plants introduced to the American continent (Vega, 2008). Douglas (1727a) described the Amsterdam Physic Garden as "the universal nursery of coffee trees for all the western parts of Europe."



Figure 4. Frontispiece in *The Virtue and Use of Coffee* (Bradley, 1721a) from copy in the Wellcome Library. Available online under the Creative Commons, Public Domain Mark⁸.

What is unusual about the 1721 coffee tree engraving (Fig. 4) is that by no means does it represent "An exact figure of the tree, flower, and fruit, taken from the life" as stated in the book title, especially considering the tree was supposed to be ca. 17-foot-tall. As stated above, the coffee shoot engraving in the 1715 book (Fig. 1) was based on a drawing Bradley did in Amsterdam. It is possible that he never drew an entire tree while in Amsterdam, or that if he drew it, the drawing was lost, resulting in the use of a shoot for the 1715 book⁹. The 1721 book required a drawing of a coffee tree to avoid the problems encountered with the 1715 book. We posit that the coffee tree (Fig. 4) was likely based on ample artistic freedom

involving a visual memory, and not on an actual drawing from the life he made of one of the trees in Amsterdam. As mentioned above, in the 24 October 1714 letter sent to Petiver from Amsterdam, Bradley mentions drawing “the coffee with the fruit & flower”, i.e., there is no mention of having drawn a coffee tree. Had he drawn a coffee tree, it would have likely been just as realistic as his drawing of a coffee shoot with leaves, flowers, and fruits. Furthermore, memories can become blurry. For example, referring to the same Amsterdam coffee trees, Bradley described them to be “about 17 foot high each” (Bradley 1715), “near eighteen foot high” (Bradley 1718), and “above seventeen foot high” (Bradley 1721a). Douglas (1727a) discusses the height of coffee trees given by Sloane (7’ or 8’ for a tree in Yemen), de Jussieu (5’ for a tree in Paris), and de la Roque (6’ – 12’ for trees in Yemen and 1.5’ and 5’ for trees in Paris) and referring to the height of coffee trees given in Bradley (1715; see above) concludes “I am even afraid Mr. Bradley did not accurately measure those he saw in Amsterdam.”

The 1721 book is not nearly as rare as the 1715 edition. There are seven copies in the British Library and a search in WorldCat^{®10} shows 31 institutions in the United States, United Kingdom, Netherlands, Germany, and Australia holding copies of the book. A total of 17 copies have been offered by auction houses or booksellers between 1902-2017¹¹.

Major differences between the 1715 book and the 1721 edition

Referring to the rare 1715 book, Thomas (1952) writes “It was later reprinted with a different plate”, mistakenly giving the impression that the 1715 and 1721 books are the same, except for the plate. Table 1 presents some of the main differences between both editions. The 1715

book is a duodecimo and did not include a publication year or price, in contrast to the 1721 edition, which is an octavo, and includes the publication year and the price. The frontispiece in the 1715 book depicts a coffee shoot, while the 1721 edition depicts a coffee tree. There is no dedication in the 1715 book, but the 1721 edition includes a 42-word dedication to Parliament. The Preface in the 1721 edition is more than twice the length (351 words) of the Preface in the 1715 book (153 words). The main text in the 1715 book consists of 4,295 words while the 1721 edition has 4,480 words. There is a bookseller’s advertisement at the end of the 1721 edition, and there is no advertisement in the 1715 book.

The total number of words in the 1721 edition is 4,957 (excluding the advertisement) and 4,531 words in the 1715 book. Most of the differences are minor editorial changes, but the 1721 edition includes new information on the preparation of coffee and its medical uses. An interesting concept in the preparation of coffee has to do with quality and storage: “In travelling I have often found my account in packing the powder of fresh-roasted coffee in bottles, which for more than twenty days has preserved its strength and goodness ...” (Bradley 1721a).

The 1721 edition does not include almost two pages of verses by Adrianus del Taffo which appear in the 1715 book; these have to do with Pasqua Rosee, the Greek man knowledgeable in the proper making of coffee, who was brought to London by Daniel Edwards. In the 1721 edition, the deleted verses are referred to as “a letter written at that time by a curious gentleman, who lately communicated it to me” (Bradley 1721a).

	1715	1721
Book size	Duodecimo	Octavo
Frontispiece	Coffee branch	Coffee tree
Title - words	83	84
Dedication - words	0	42 (1 unnumbered page)
Preface - words	153 (3 unnumbered pages)	351 (4 numbered pages)
Text - words	4,295 (30 numbered pages)	4,480 (26 numbered pages)
Advertisement ¹² - words	0	448 ¹³ (3 unnumbered pages)
Total # words	4,531	5,405
Total # words w/o advert.	4,531	4,957

Table 1. Comparison of contents of *A Short Historical Account of Coffee* (1715) and *The Virtue and Use of Coffee* (1721). The Royal Society copy was used for the 1715 book and a copy at the Wellcome Library⁸ was used for the 1721 edition.

In the discussion having to do with the transport of coffee from Arabia Felix (present day Yemen) to Europe, Bradley presents interesting

information on the transport of coffee. He states in the 1715 book “they bring it upon camels down to Moco¹⁴ and other ports in the Red-Sea,

to be transported to Suez...” In the 1721 edition, this has been changed to “they bring it upon camels down to Juda¹⁵, a port at the bottom of the Red-Sea (which is the port to Grand Cairo) to be transported to Suez...” Similarly, referring to the lower quality coffee, he writes in the 1715 book “But that sort, which we have under the character of India coffee, is bought at Moco and for the most part is only refuse or what the Turks merchants leave...”, which in pages the 1721 edition reads:

But that sort, which we have under the character of India coffee, is bought at Bettelfukere¹⁶, where the English, Dutch, and French, of late years, send up factors to buy the said commodity, and bring it on camels to Moco, from whence it is shipped for Europe.

It is noteworthy that even though the 1721 edition includes the word “plague” in the title, it is only mentioned six times in the entire book: four times in the Preface and twice in the text. Thus, it appears that including “plague” in the title was mainly a marketing ploy based on the 1720 bubonic plague epidemic in Marseilles, as has been suggested by Coulton (2005). The Marseilles epidemic was the topic of another book by Bradley (Bradley 1721b), which was dedicated to Newton.

The title in the 1715 book includes “with a more accurate description of the coffee-tree than has yet been publish’d.”, a statement missing from the title in the 1721 edition. Finally, the 1715 book uses the word “physitian” and “gardener”, which have been changed in the 1721 edition to “physician” and “gardiner”, respectively. The 1715 book refers to “Dr. Sloan”, which has been changed to “Sir Hans Sloane” in the 1721 edition.

The skirmish between James Douglas and Richard Bradley

Thomas (1952) stated that *A Short Historical Account of Coffee* (Bradley 1715) “was unknown to many of Bradley’s contemporaries.” One documented example involves James Douglas (1675–1742), a renowned Scottish medical doctor in London, an avid student of botany (Brock 1979), and as mentioned above, a Fellow of the Royal Society.

On 18 March 1724-5, Douglas read *A Botanical Dissection of the Coffee Berry* at the Royal Society (Douglas 1725). On page 6, he wrote: “Mr. Bradley, it seems, had neither seen de

Jussieu’s nor La Roque’s *Memoires*, tho’ published six Years before he undertook to write upon Coffee...” Douglas was clearly referring to Bradley’s *The Virtue and Use of Coffee* (Bradley 1721a). As a matter of fact, Bradley’s (1721a) entire section dealing with previous authors (i.e., Cotovicus, Alpino, Paludamus, Sandys, Parkinson, Bauhin, Ray, Poncett, and Commelin) is almost identical to the one in Bradley (1715). One reason why Douglas (1725) might have considered it appropriate to comment is because Bradley’s (1721a) title page includes the following: “Containing the most remarkable observations of the greatest men in Europe concerning it, from the first knowledge of it, down to this present time.” Furthermore, Bradley writes “And that I may observe some sort of method in the prosecution of my discourse, I shall in the first place, give you my reader the names and descriptions of it, from the several authors who have mentioned it...” (Bradley 1721a). The omission of de Jussieu (1715) and de la Roque (1715) in Bradley (1721a) is not a minor issue.

Antoine de Jussieu (1686–1758) was a Professor of Botany at the *Jardin des plantes* in Paris and he was the first Frenchman to scientifically describe a coffee plant (“*Jasminum Arabicum, Lauri folio ...*”) in de Jussieu (1715), the publication not included in Bradley (1721a). de Jussieu presented his paper at L’Academie Royale des Sciences on 4 May 1715 (see de Jussieu 1715), at which time, Bradley’s 1715 book had already been published. Jean de la Roque’s (1661–1745) book, first published in French (de la Roque 1715), had a second French edition in 1716, was also published in French in Amsterdam in 1716, translated into German in 1717, into Italian in 1721, and into English in 1726 (see Hünnersdorff and Hasenkamp’s 2002). de la Roque’s book provided a detailed description of the origins of coffee, and not including such a popular and important book in Bradley (1721a) was also a glaring omission.

Bradley (1726) addressed Douglas’s (1725) comment as follows: “... so that I am of opinion Dr. Douglass had not seen the first edition of my treatise of coffee, when he wrote his Botanical Dissertation of the Coffee Berry, because in page the 6th of that work, that gentleman says, “That Mr. Bradley, it seems, had neither seen de Jussieu’s nor la Roque’s *Memoirs*, tho’ published six Years before he undertook to write upon Coffee”: And particularly, I imagine that the Doctor had not seen my first edition of that Treatise, because in the same page it is said, “That Mons. de Jussieu, in his excellent history

of the coffee-tree, read in the French Royal Academy in 1715, &c.” So, that the time when Dr. de Jussieu read his history of it, was the next year after my account of it was publish’d; but I shall proceed to remark some particulars relating to its culture, which yet are not made publick.”

Bradley’s response to Douglas obfuscates the issue and is very misleading. He starts by implying Douglas was referring to the 1715 book, when in fact it is clear that Douglas was referring to the 1721 edition. It would have obviously not been possible for Bradley to include de Jussieu or de la Roque in his 1715 book, seeing the three books were published the same year. Douglas (1725) statement in reference to Bradley (1721a) not having included de Jussieu and de la Roque is accurate and having no defence for not including these authors in the 1721 edition, Bradley decides to mislead.

It is evident that Douglas had not seen the 1715 book because he does not refer to it and instead refers to the 1721 edition when he writes “tho’ published six Years before he undertook to write upon Coffee.” Bradley’s 1715 book is not included in Douglas’s (1725) Preface under “Nomina Auctorum” (Douglas, 1725), i.e., the names of 45 authors that had published on coffee from 1574 to 1722; the list includes Bradley (1721a). This attests to the rarity of Bradley’s 1715 book.

Douglas (1725) also criticized Bradley for not having “examined the coffee fruit in the Amsterdam Garden, with all the care that could have been wished ...” and states, “To Mr. Bradley, we may join Mr. Joseph Miller, who has been as negligent in consulting the authors upon this subject, as the other in observing the fruit itself upon the tree...”.

As stated before, Bradley’s 1715 book is exceedingly rare, and it is possible that it was never released to the public, explaining why his contemporaries (e.g., Douglas 1725) were not aware of it. Nevertheless, the de Jussieu library (belonging to various members of the de Jussieu family), auctioned in Paris in 1857 (Anonymous 1857), included a French manuscript translation of Bradley’s book, now housed at the Muséum national d’Histoire naturelle in Paris (Anonymous 1914). The translator’s initials are “D.L.” (Anonymous 1914) but the date when this translation was written is unknown.

By 1727, Douglas had familiarized himself intimately with Bradley’s work related to coffee, as he cited him 20 times in his important coffee book “Arbor Yemensis fructum coffe ferens: or, a description and history of the coffee tree” (Douglas 1727a). The citations are based on five publications by Bradley (1715, 1718, 1721a; 1724, 1726). The fact that Douglas cited Bradley did not mean that he was impressed; on the contrary, Douglas (1727a) fired a last salvo by launching new detailed criticisms of Bradley’s (1721a) statements about coffee leaves, flowers, and seeds. Interestingly, Douglas’s review of publications related to “The root, trunk and branches of the coffee plant” (Douglas, 1727a) mentions Bradley’s (1715) use of a coffee shoot and not a tree in the book: “Mr. Bradley has been at pains to examine and delineate the coffee trees that grew in the Amsterdam Garden. His figure, however, is only that of a branch...” It is intriguing that Douglas (1727a) fails to comment on the frontispiece depicting a coffee tree in Bradley (1721a; Fig. 4). Finally, Douglas severely criticized Bradley (1721a) for stating that the coffee seeds were somehow treated in Yemen to prevent them from germinating elsewhere (Douglas, 1725; 1727b).

Introduction of coffee to England

Douglas (1727a) mentions several instances in which coffee plants were known to have been growing in England prior to Bradley’s trip to Amsterdam: (1) at the Royal Garden in Hampton Court before the death of Queen Mary II in 1694; (2) Henry Compton, Bishop of London from 1676 to 1713, had a coffee plant brought from Batavia (present day Jakarta, Indonesia) growing in Fulham in 1696; (3) Mary, Duchess Dowager of Beaufort in Chelsea in 1706; and (4) at Thomas Thynne, 1st Viscount Weymouth’s garden in Wiltshire in 1712 (the plant had been sent from Holland). It appears Bradley was not aware of any of these introductions and if all these accounts are correct, coffee was not such a rare commodity in England as Bradley believed, as it had already been grown in at least four different British gardens, with the first time occurring ca. 20 years prior to his trip to Holland.

Referring to coffee seeds from the Amsterdam plants, Bradley (1715) writes:

The Heer Gerbrand Pancrass, Commissary of the Garden, and President of the City of Amsterdam, did me the honour to accommodate me with this great curiosity which I have

sent into England, and for the present is intrusted to the care of Mr. Thomas Fairchild¹⁷, a most accurate gardener at Hoxton.

This would have occurred in 1714, which as mentioned above, is also the year in which the Dutch presented King Louis XIV with a coffee plant, described by de Jussieu (1715; see above)¹⁸. In a 13 July 1714 letter to Petiver, Bradley mentions he has shipped him a dried coffee tree specimen and three coffee fruits inside a small vial that should be delivered to Fairchild (ca. 1667–1729) for planting (Colton, 2005). In a 20 July 1714 letter, he tells Petiver that he has shipped a live coffee tree to Mr. Fairchild (Coulton, 2005). The subsequent history of this tree is unknown. According to Douglas (1727a): (1) Sherard sent a coffee tree in 1719 to “Dr. Eudal” (likely the Rev. Robert Uvedale (1642–1722; Ellis 2006) in Enfield (north of London); (2) in 1723, Sherard’s brother had coffee trees likely obtained from Amsterdam growing in his garden in Eltham (Kent); and (3) coffee trees were sent by the governor of Barbados “last summer” to His Majesty, His Royal Highness the Prince, and the Duke of Chandos. Bradley (1726) mentions that some coffee “plants in a fruit-bearing state” originating in Barbados were brought to “the Royal Palace at Hampton-Court, in a prosperous condition.”

In a letter “To William Parker of Healing¹⁹, Esq; concerning the culture of foreign plants in England” Bradley (1724) wrote:

It is observable, that when the fruit is ripe about the beginning of July, it must be gather’d, and immediately the seeds must be clear’d from the pulp, and set in the ground, otherwise they will not sprout: This particularly the Gardener at Amsterdam, Mr. Cornelius, observes diligently; and tho’ I sent some berries fresh gather’d, by the post, which were not above four days in the passage to London, to a very great artist, they could not be made to grow...

The “very great artist” Bradley refers to is Fairchild. The letter to Parker (Bradley 1724) also mentions that one coffee tree is growing (apparently outdoors) in “your garden near Croydon” (south of London). Douglas (1727a) mentions that in 1724, Mr. Parker received two coffee plants from Amsterdam.

In 1725-6, Thomas Knowlton (1691–1781), an exceptional botanist and gardener (Henrey, 1986), wrote a letter whose content is included in Douglas (1727a) and in which he described how he propagated one coffee tree and managed to successfully germinate two coffee seeds in William Sherard’s garden in Eltham (Kent). The coffee plant and a coffee berry containing the two seeds had been obtained by Sherard (1659–1728), a renowned English botanist, in the Amsterdam Physic Garden. Douglas (1727a) mentions that “... the coffee tree is now to be found in many gardens about London.”

In reference to the short viability of coffee seeds and why it was necessary to transport live plants to new countries, Miller (1737) mentioned that carrying live trees to new countries wouldn’t be a problem “as this Difficulty is now overcome, by the Quantity of these Trees there are now growing both in Europe and America...” Describing the “difference in goodness” of coffee “cultivated in the Islands of America, both by the English and French” when compared to coffee from the East Indies, Miller (1754) adds, “the Berries which have been produced in England; which were as well flavoured as any Coffee brought from the East-Indies”, thus indicating that there were coffee plants growing in England, most likely indoors in gardens, which were producing enough fruits for roasting, grinding and preparing a good cup of coffee.

Bradley’s passing

Bradley died on 4 November 1732²⁰ (Anonymous, 1732; Thomson, 1812). Henrey (1975) estimated Bradley was approximately 46 years old when he died. McDonald (1908) and Stephen (1921-1922) list the place of death as Cambridge, but the burial place was in London. It is very unlikely that his body would have been transported from Cambridge to London for burial. According to the burial records of the Church of St. Sepulchre in Holborn (London), he was buried on November 10: “Richard Bradley from Char: House Lane in Chick.” This indicates he was living on Charter House Lane, which was also stated by his widow Mary in a letter to Hans Sloane, in which she also mentions he died “after a long and tedious fitt of sickness” (Coulton, 2005). Bradley was buried at St. Sepulchre’s Churchyard near Chick Lane in Holborn²¹ and it appears the burial site was a common grave²²:

North of Chick Lane is the new churchyard of St. Sepulchre’s, re-discovered recently when excavations

took place which revealed stacks of human bones regularly laid and piled... They have now been moved to some consecrated ground, and the place is built over (Besant, 1903).

Bradley's scientific reputation

Bradley's high esteem in scientific circles at the time is evidenced by various events, despite the John and Thomas Martyn besmirching campaign (see Walters, 1981). For example, in the Preface for "A List of the Royal Society of London" (Royal Society, 1718), Bradley is commended on two quite different areas of science: "... with all useful Observations in Planting and Gardening, like those of Mr. Evelyn, and Mr. Bradley; as well as all Microscopical Discoveries, like those of Mr. Leewenhoeck, Dr. Hook, and of the foresaid ingenious Mr. Bradley."

In a 27 December 1720 letter from Boerhaave to Sherard, Boerhaave writes:

I already know your Bradley of whom Mr. Rand had told me true things... I heard much concerning the excellence of this man in botany especially about a successful and particular way of cultivation; this had as result that I endeavoured to discover who he might be (Lindeboom, 1962).

Boerhaave was referring to Isaac Rand (1674–1743), another famous British botanist.

In 1721, Bradley published *A Philosophical Account of the Works of Nature* (Bradley, 1721c), among whose subscribers was Newton, with an order for six books. It would be unlikely that Newton would have ordered so many copies unless he had a high esteem for its author. Other noteworthy subscribers were Hans Sloane, Christopher Wren, and Antoine de Jussieu.

Linnaeus included Bradley in three sections of *Philosophia Botanica* (Linnaeus, 1751): "6. Authors who are famous for any work on vegetables"; "13. The monographers have described a single vegetable at length in a separate work"; and "45. The Gardeners have treated the cultivation of vegetables" (Freer 2005).

Bradley's contributions were likened to those of Newton by Sir James Edward Smith (1759–1828), founder of the Linnean Society of London, in an 1825 address focused on botany:

We are indebted to the Italian philosophers of the seventeen century, especially to Malpighi, for the first considerable information respecting the anatomy or internal structure of the vegetable body; though our ingenious countryman, Dr. Grew, nearly about the same time was intent on the same subject. In the next century their facts and observations, assisted by new ones, were made good use of by physiologists, properly so called, – such as Hales, Blair, Bradley, and our immortal Newton himself, in England ... (Lady Smith, 1832).

In 1983, a new journal dedicated to succulents was named *Bradleya* in honour of Richard Bradley (Rowley, 1983).

Conclusion

Some important professional landmarks in Bradley's life include becoming a Fellow of the Royal Society (1712); his trip to Amsterdam (1714); being named the first Professor of Botany at the University of Cambridge (1724); and the many books he authored. The popularity of some of Bradley's books is evidenced by *New Improvements of Planting and Gardening, both Philosophical and Practical*, which went through seven editions between 1718 and 1739, and *The Country Gentleman and Farmer's Monthly Director* which had six editions between 1726 and 1736 (Edmondson 2002). Throughout his adult life, Bradley faced monetary problems which have been best expounded by Henrey (1975) and Coulton (2005). Despite these problems, Bradley, a man without a formal university education, managed to make ample contributions to gardening and botany, and should be remembered not only for these contributions, but also for being the first person in England to describe a coffee tree using live specimens and for creating the first colour depiction of a coffee shoot with leaves, flowers and fruits (Fig. 1).

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Notes

¹ Sloane MS. 3322, fols. 78-79, British Library, hereafter B.L.; transcription provided by R. Coulton.

² Date estimated by Coulton (2005).

³ Sloane MS. 4046, fol. 223, B.L.; transcription provided by R. Coulton.

⁴ Sloane MS. 4046, fol. 224, B.L.; transcription provided by R. Coulton.

⁵ https://books.google.com/books?id=HflmAAAcAAJ&newbks=1&newbks_redir=0&dq=coffee-mans+granado&source=gbs_navlinks_s

⁶ Sloane MS. 4046, fol. 224, B.L.; transcription provided by R. Coulton.

⁷ <https://www.folger.edu/the-collection>

⁸ <https://wellcomelibrary.org/item/b30384746>.

⁹ A modified inverse version of the engraving was used in the 5th (1726), 6th (1731), and 7th (1739) edition of Bradley's *New Improvements of Planting and Gardening, both Philosophical and Practical*.

¹⁰ https://www.worldcat.org/title/virtue-and-use-of-coffee-with-regard-to-the-plague-and-other-infectious-distempers/oclc/634100110&referer=brief_results

¹¹ <https://www.rarebookhub.com>

¹² Publisher's advertisement (five pages) for six books written by Richard Bradley.

¹³ The Wellcome Library copy⁸ used to gather this data is missing two pages of advertisement, which are present in another copy in the Wellcome Library (<https://archive.org/details/b30547751>; accessed 27 July 2020)

¹⁴ Mocha, a port in southwestern Yemen.

¹⁵ Al Hudaydah, a port in western Yemen.

¹⁶ Bayt al Faqih, located in southwestern Yemen.

¹⁷ Described as "the leading nurseryman of his day" (Wulf 2008).

¹⁸ Monsieur de Resson had already given a young coffee plant from the Physic Garden in Amsterdam to the *Jardin des plantes* in Paris (de Jussieu 1715). In contrast, the coffee plant given to the King was 1.5 m tall and had the "thickness of a thumb" (de Jussieu 1715).

¹⁹ Ealing, west of London. In the Preface to his coffee treatise, Douglas (1727) acknowledged

"Mr. Parker of Heling, and Mr. Sherard of Eltham, to whose invaluable gardens I had at all times free access, whenever I found it necessary to view the coffee plants..."

²⁰ Coulton (2005) cites the 8 November 1732 issue of London's *The Daily Post*, which gives Bradley's death as Sunday, 5 November 1732; Nichols (1812) and Stephen (1921-1922) also give this date, with Nichols (1812) adding that he died on "Sunday evening."

²¹ The main edifice for the church, now known as Holy Sepulchre Church, stands at 10 Giltspur Street, a short distance from where Bradley was buried at St. Sepulchre's Churchyard near Chick Lane.

²² According to the burial records of the Church of St. Sepulchre, in October 1732 at least 25 people were buried in the Churchard (three of whom had been executed), and between November 3-16, 19 people were buried there. Burial records held at the London Metropolitan Archives under "London, England, Church of England Baptisms, Marriages and Burials, 1538-1812."

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