Alfred Russel Wallace Notes 12: How Good Was Wallace's Memory?

Charles H. Smith, PhD.,^a November 2020

^a Bowling Green, KY, USA. Email: charles.smith@wku.edu

Summary: Alfred Russel Wallace (1823–1913) continues to be criticized for inconsistencies in his recollections of the earlier events in his life. This criticism, while not entirely unjust, has nevertheless been overplayed. Critics have not attended to the general understanding that self-biography is under the influence of two aspects of memory: that pertaining to remembrance of the *qualities* of past situations, and a secondary ability to assign absolutes of name or date to such memories. All evidence suggests that Wallace's memory in the first sense was excellent throughout his life, but that he was prone to lapses of the second type. *Key words:* self-biography, autobiography, memory, recollections, Alfred Russel Wallace

The accomplishments of Alfred Russel Wallace (1823–1913) are well known to historians, but considerable controversy still surrounds the foundations of these, and in particular what his early motives were and how these led to his discoveries. A continuing contentious element in these discussions is to what extent we can trust the reliability of his remembrance of events: obviously, if his later recall of critical occurrences was flawed (or even deliberately sanitized), his words should be given little weight in our attempts to reconstruct them.

Wallace lived to the age of nearly ninety-one, and on this basis alone complaints have been lodged concerning the possibility that his memory may have degraded with advancing years. But the most damning evidence in this regard is the simple fact that many of his writings – and not just those of his old age – contain specific errors of attribution: especially of dates, and proper names. In his day, there were relatively few means for fact-checking historical details, and it is evident that Wallace often did not have the resources (and possibly the patience) to do more than enlist memory when mention of a quick fact was required. Every researcher who has spent any amount of time on Wallace, including myself, comes upon these errors regularly, and must be prepared to do a lot of double-checking. So, with respect to the actual existence of these mistakes, at least, everyone is in agreement that they really are there.

But, as with many things, this is only half – if that – of the story. In this work I take a look at this matter, beginning with others' impressions of the quality of his memory, but extending to some other considerations.

The Memory of Events

Consider the following lengthy passage:

Let it be supposed that I am the spectator of a great battle. Posted upon the vantageground of a lofty tower, I see it begin, continue, and come to an end. Early in the morning, whilst the rays of the summer sun are yet slanting nearly level across the plain below, one host is coming into view and massing its battalions where the slight rise of the ground

meets the sky. Opposite to it is the vast irregular semicircle of the enemy, half hidden in dips and hollows, one flank resting upon a wood, and a broad high-road running through the centre of his position. The battle begins with the advance of a strong division on one side, and a heavy fire of shells from batteries of both the armies. The advancing forces are met by others; the sharp cracking and rattling of the rifles mingles with the roar of the cannon; more forces engage; the battle is general all along the line. The noise and the smoke confuses the spectator. There is retreat, advance, flight, first on one part of the field, then on another. Bodies of troops are broken, the dead begin to strew the field, and the bearers of the wounded pass swiftly between the battle and the rear. Brilliant masses of cavalry thunder down upon bright lines of bayonets that wither them with far-reaching death. Officers gallop hither and thither; the reserves come up; shouts as of victory are heard, and with a general advance of one army, the other is driven back, broken, put to flight, slain, or taken, until the wave of war seems to pass away over the sky-line from whence in the morning the attack had been made. The sun sets and the moon rises upon wreck, blood, dead and dying men, plunderers, slowly vanishing smoke, and what seems like silence.

All this scene I have taken in with my senses. Complicated as it has been, I have followed it with accuracy, estimated distances and velocities correctly, and formed a fair impression of what has actually been transacted. What is more than this, I have that scene with me still, although it is past never to return. I can recall it on the following day, a year after, now. And when I recall it, it seems to be the same in its details as when I saw it. The battle-field comes back to me with its apparent space and breadth, the horizon, the wood, the hollows, and the road. I realize the colour-the green of the grass and of the springing com, with their different shades, the darker wood, the red and the blue of the massed troops, the glitter of helmet, bayonet, and scabbard, the flash of sabres, the lightning and black storm of the guns, great and small. . . . It all remains; not, perhaps, as fresh to-day as it was yesterday, but quite unmistakable; and it is probable that I shall carry it with me to my last moments. If I lose any of the details, I can often recall them by first of all recalling what preceded or followed; one fragment of the picture suggests another. And even if I meet with similar details in quite other scenes, my battle is brought back to my imagination. The harmless tiring of volunteer artillery recalls the fearful volleys of that day. I cannot see the smoke of a weed-fire hanging in the air of a March afternoon, or watch the mists curling along the sides of a wooded hill after rain, without having the lurid canopy of that field in my thought again. When I mount a church-tower and look out over Yorkshire wold or Cornish moor, I range my armies as they once stood on another plain far away. The smell of the blue-bells never fails to make me think of that day, for there was a patch of bluebells under the trees by my post of observation. Whenever I see again that peculiar arrangement of the clouds that marked one moment of the day, I recollect the tremendous rush of cavalry there was just then. Nay, if I had reason during the fight to fear for my own life or safety, there are moments when a tremor of my nerves, proceeding from fear or from ill-health, or from surprise, will carry me back from the midst of a crowd and from the engrossment of interesting conversation to the moment when I stood solitary and anxious so long before upon the tower. (Anon. 1871, pp. 26-28)

In short, a vivid impression was made, one never to be forgotten. Compare these remarks to the following passages from Wallace's autobiography:

... during the whole period of my residence at Usk, I have no clear recollection, and can form no distinct mental image, of either my father or mother, brothers or sisters. I simply recollect that they existed, but my recollection is only a blurred image, and does not extend to any peculiarities of feature, form, or even of dress or habits. It is only at a considerably

later period that I begin to recollect them as distinct and well-marked individuals whose form and features could not be mistaken – as, in fact, being my father and mother, my brothers and sisters; and the house and surroundings in which I can thus first recollect, and in some degree visualize them, enable me to say that I must have been then at least eight years old.

What makes this deficiency the more curious is that, during the very same period at which I cannot recall the personal appearance of the individuals with whom my life was most closely associated, I can recall all the main features and many of the details of my outdoor, and, to a less degree, of my indoor, surroundings. The form and colour of the house, the road, the river close below it, the bridge with the cottage near its foot, the narrow fields between us and the bridge, the steep wooded bank at the back, the stone quarry and the very shape and position of the flat slabs on which we stood fishing, the cottages a little further on the road, the little church of Llanbadock and the stone stile into the churchyard, the fishermen and their coracles, the ruined castle, its winding stair and the delightful walk round its top – all come before me as I recall these earlier days with a distinctness strangely contrasted with the vague shadowy figures of the human beings who were my constant associates in all these scenes. In the house I recollect the arrangement of the rooms, the French window to the garden, and the blue-papered room in which I slept, but of the people always with me in those rooms, and even of the daily routine of our life, I remember nothing at all.

... the varied opportunities for the exercise of the physical activities, and the delight in the endless variety of nature which are so strong in early childhood, impressed these outdoor scenes and interests upon my memory. And throughout life the same limitations of observation and memory have been manifest. In a new locality it takes me a considerable time before I learn to recognize my various new acquaintances individually; and looking back on the varied scenes amid which I have lived at home and abroad, while numerous objects, localities, and events are recalled with some distinctness, the people I met, or, with few exceptions, those with whom I became fairly well acquainted, seem but blurred and indistinct images.

In the year 1883, when for the first time since my childhood I revisited, with my wife and two children, the scenes of my infancy, I obtained a striking proof of the accuracy of my memory of those scenes and objects. Although the town of Usk had grown considerably on the north side towards the railway, yet, to my surprise and delight, I found that no change whatever had occurred on our side of the river, where, between the bridge and Llanbadock, not a new house had been built, and our cottage and garden, the path up to the front door, and the steep woody bank behind it, remained exactly as pictured in my memory. Even the quarry appeared to have been very little enlarged, and the great flat stones were still in the river exactly as when I had stood upon them with my brother and sisters sixty years before. The one change I noted here was that the well-remembered stone stile into the village churchyard had been replaced by a wooden one. We also visited the ruined castle, ascended the winding stair, and walked round the top wall, and everything seemed to me exactly as I knew it of old, and neither smaller nor larger than my memory had so long pictured it. (Wallace 1905, i, pp. 25-27)

Thus, it appears that Wallace himself felt that, apart from a problem with recalling faces (or the exact words in a conversation, per an interview he gave: Marchant 1905, p. 548), there was nothing wrong with his memory of "scenes and objects." What did other people from his time think of his abilities in this direction?

Period Impressions of Wallace's Memory

A fair number of evaluations of the quality of Wallace's memory were published during his later years, or shortly after his death, for example:

... Though unable for many years to visualize his parents or any of the persons with whom he was in daily contact, he could readily recall all the natural surroundings of his former home. Then, as throughout life "the perception of form and individuality were but moderately developed, while locality, ideality, colour and comparison are decidedly stronger" as he himself once wrote. (Anon. 1913, p. 1338)

... A prodigious memory, despite a head so shaped as to prove him, according to phrenology, to be "but moderately developed in form and individuality," enables Mr. Wallace to give a minute account of his childhood. (Anon. 1905)

... As a matter of fact, the remainder of his reminiscences are comparatively uninteresting. In the story of his childhood and of his youthful days as a surveyor there is much of value to the historian of social England, and the reader cannot but be amazed at the marvelous memory which has enabled the veteran to place on paper details which the great mass of mankind would lose in the affairs of after life. But this very multiplicity of detail operates to make the narrative drag... (Anon. 1906)

... With remarkable clearness Dr. Wallace could recall events and scenes back to the time when he was only 4 years of age. (Marchant 1916, p. 8)

... His restless brain and vivid imagination at this early period are shown by some dreams which he could still recall when 82 years of age; whilst the strong impression left on his mind by certain localities, with all their graphic detail of form and colour, enabled him to enjoy over again many of the simple pleasures which made up his early life in the beautiful grounds of the ancient castle in which he used to play. (Marchant 1916, p. 9)

... He seemed to have the substance of his writing in his mind before he commenced, and did not often refer to books or to notes, though he usually had one or two books or papers on the table at hand, and sometimes he would jump up to get a book from the shelves to verify some fact or figure. When preparing for a new book or article he read a great many works and papers bearing on the subject. These were marked with notes and references on the flyleaves, and often by pencil marks to indicate important passages, but he did not often make separate notes. He had a wonderful memory, and stored in his mind the facts and arguments he wished to use, or the places where they were to be found. (William G. Wallace, in Marchant 1916, pp. 363-364)

... Poetry appealed to him very strongly, and he had a good memory for his favourite verses, especially for those he had learned in his youth. Amongst his books were over fifty volumes of poetry. (Marchant 1916, p. 373)

... In reading his books and essays written more than seventy years later, we are struck with the exceptional opportunities which he had of comparing social conditions, and commercial and individual prosperity during that long period, and of witnessing the introduction of many inventions. He used to enjoy recalling many of the discussions between intelligent mechanics which he heard of in his early days regarding the introduction of the steam-engine. (Marchant 1916, pp. 379-380)

Thus, during his time there is evidence of his being held in high regard in this respect. Just recently, Beccaloni (2020) has noted:

We know he didn't collect many of the same species because it wouldn't have made financial sense. He must have had an incredibly good memory, and not having a camera he had to remember each and every species he collected so he wouldn't collect them over and over again... Because Wallace had a photographic memory, he could remember all the species of insects from each island without having to assign scientific names to them. Since most of the insects he was collecting didn't yet have scientific names anyway, Wallace would just need to know whether he had them yet or not.

Mayr (1982, p. 418), meanwhile, once wrote: "The ship on which he traveled caught fire (August 6, 1852) and sank, with his entire magnificent collection and most of his journals, notes, and sketches. Yet, from memory Wallace pointed out (1853) that the distribution of each of numerous closely related species of monkeys, poorly flying birds, and butterflies was bordered by the Amazon and its tributaries." Stott (2012, p. 173) observed: "Over the next fifty years, Wallace told that story so often that it became a kind of personal myth: the fever, the chills, the remote location, the sudden searing understanding of how the fittest survived; how he had to wait for the shivering to pass before he could put pen to paper. There is no reason to doubt any of his story – Wallace was honest, careful with detail, and an accurate record and diary keeper; he had a sharp memory." Others have echoed these sentiments.

So, given the reality of the numerous factual errors, what are we to think?

Autobiographical Memory – and Its Weaponization

The key to understanding the discrepancy has to do with a well-explored subject in the study of self-biography. As I put it in Smith (2016, p. 423):

... In general, it must be urged that the 'doddering old Wallace' complaint has been overplayed. In *Alfred Russel Wallace Letters and Reminiscences* (Marchant, 1916, p. 363), his son reported that 'he had a wonderful memory'... Numerous callers to his home, even in his latest years, reported him mentally acute, right to the end. Reviews of his last three books, written as he neared and passed 90 years old, almost uniformly congratulate him on his coherence of presentation and argument (although not always on his conclusions!). This leads to an important point, largely ignored by historians: there is a big difference between memory of the characteristics and duration of an event *per se*, and an ability to recall its exact place and date of occurrence (Bradburn *et al.* 1987; Thompson *et al.* 1997).

A more formal statement of this notion is given in Boyer et al. (2005, p. 650):

... great part of the self-model consists in representations of autobiographical facts and episodes, in a description of the past self. This is why there is no coherent description of self-processes without consideration of autobiographical memory. The latter comprises episodic memories but also a semantic store of facts about one's own past. Experimental and observational studies converge to suggest a model of autobiographical memory where these two components are separate. . . Memory supports self-representations in two different ways. First, it provides representational evidence for our assumption that the self is durable, that every experience is gauged against a background of past episodes and that, by extension, future situations matter. Second, autobiographical memory provides this material in a way that supports another tacit assumption, to the effect that the self is someone in particular, with durable or indeed essential qualities that make self different

from others. This makes autobiographical memory distinct from episodic memory in general, which does not always support such assumptions.

Or, as the *Wikipedia* article on the subject states, more simply: "Autobiographical memory is a memory system consisting of episodes recollected from an individual's life, based on a combination of episodic (personal experiences and specific objects, people and events experienced at particular time and place) and semantic (general knowledge and facts about the world) memory."

We can thus find an explanation for Wallace's "inconsistencies" with regard to memory: simply, that he was much better in the one kind of recollection than in the other. In turn, the fact that he often got dates and names wrong should not be used as an excuse for assuming he was unable to accurately recall the subjective details of events. In point of fact we have every reason, as I indicate above, to exercise restraint in this regard.

Complicating the matter in Wallace's case is that he is one of the most controversial characters in the history of science. This was as true in his own time as it is now. Not only did he willingly involve himself in a considerable number of fringe and socially contentious causes, but he had the bad luck of coming up against a firmly placed establishment in his more conventional studies. From his time to this day he has found himself the man on the outside of several identifiable camps, most notably: (1) Darwin apologists who view his rear-guard attacks as a distraction to the eminence of their man (2) biologists who applaud most of his natural science efforts, but snicker at his various "isms" (3) conspiracy theorists who are out to enlist his name in efforts to villainize Darwin (4) creation science and intelligent design promoters, who wish to use his views as support for their own positions as theists. With all these sects (and more: for example Welsh nationalists of today who want to believe he is not fundamentally an Englishman) tugging at his reputation, it is surprising that the old boy has stood up as well as he has.

Not infrequently it is the case that when agendas are involved, investigators slide into a willingness to enlist any kind of information that seems to aid their argument. Agedness and bad memory are convenient scapegoats that can be used to support weak or incomplete investigations, and I feel Wallace has too frequently been victimized in this respect.

A Case in Point

In Volume 1 of his autobiography *My Life* Wallace wrote of his early 1837 experiences in London:

... our evenings were most frequently spent at what was then termed a "Hall of Science," situated in John Street, Tottenham Court Road (now altered to Whitfield Street). It was really a kind of club or mechanics' institute for advanced thinkers among workmen, and especially for the followers of Robert Owen, the founder of the Socialist movement in England. Here we sometimes heard lectures on Owen's doctrines, or on the principles of secularism or agnosticism, as it is now called; at other times we read papers or books, or played draughts, dominoes, or bagatelle, and coffee was also supplied to any who wished for it. It was here that I first made acquaintance with Owen's writings, and especially with the wonderful and beneficent work he had carried on for many years at New Lanark. (p. 87)

... I have a recollection of having once heard him give a short address at this "Hall of Science," and that I was struck by his tall spare figure, very lofty head, and highly benevolent countenance and mode of speaking. (p. 104)

In 2000, in his *Victorian Sensation*, author James Secord wrote of Wallace's experiences during this period:

... He had gone to London to stay for a few months in Hampstead Road with his brother, who was apprenticed to a builder. He recalled evenings in one of the halls of science ... He claimed to have been impressed by Combe's phrenology, a cheap reprint of the anatomist William Lawrence's *Lectures on Man*, and a tract by Robert Dale Owen that damned the doctrine of eternal punishment... (p. 332)

On the next page, in a footnote, Secord opines: "...although the John Street Institute is mentioned, this cannot be correct, as the Owenites occupied it only from 1840." Overall, the impression created by Secord is that he doesn't believe any of it because Wallace's memory likely was faulty. In 2013, in *Dispelling the Darkness*, John van Wyhe picks up on his former teacher's condemnation: "However, according to historian of science James Secord, Wallace's recollection cannot be correct as the John Street Institution was occupied by Owenites only three years later" (p. 14). The only problem with all this is that Owenites were in fact very active in this part of town in early 1837, and Owen himself did lecture there several times during this period. Claevs (2008) had researched the matter quite thoroughly five years earlier by going through the relevant weekly issues of The New Moral World, a periodical active at that time that was published by that branch of the Owenite movement itself, but this is not acknowledged in Van Wyhe's original text. I (CHS) caught the error in proofs, and informed him of the mistake, but no change was made in the main body of the published text. Instead, in the note containing the record for the Secord reference, he merely added: "However see Claeys, Wallace, women, and eugenics, 2008. Thanks to Charles Smith." This is typical of Van Wyhe's treatment of Wallace's remembrances: assuming that just because he got the date or place name wrong that the entire scene recollected may never have happened, and then, when confronted with the facts, not budging from his error. It also reveals that Secord's original research into the matter was insufficient.

This is by no means the only example of this kind of treatment. For example, there is an inference by Gordon (1989) that Wallace was not influenced by Malthus in his early years, and only picked up on Malthusian notions much later, perhaps after his reading of the Darwin letters volumes after 1887. This cannot be seriously entertained. Gordon suggests that Wallace's remembrance of the matter was vague and untrustworthy by 1908 (his discussion of the subject in his presentation to the Linnean Society's fifty year anniversary celebration), but Wallace produced much earlier recollections: most notably in an 1869 letter to Adolf Bernhard Meyer, the translator of several of his works into German (see Beddall 1968, p. 313, and a 9 July 1881 letter to Darwin printed in Marchant 1916, pp. 260-261).

In another such instance Wallace states in his autobiography that he visited James Brooke at his estate Burrator for a week in September 1863 or 1864. Brooke put the period as three weeks, and it has been suggested that Wallace's memory was bad on this matter, as he apparently got the entire year (1862) wrong. This investigation is still in progress, but so far it has been determined only that Wallace was present over the period 20 September through 26 September. The period 10 September through 19 September, the remaining potential visit period, is not yet accounted for, but in a letter to Darwin dated 8 August (Marchant 1916, p. 121) Wallace notes that "In a day or two I go to Devonshire for a few weeks" to visit (partly for health reasons) his old friend Charles Hayward. Hayward's home was only about twenty-five miles from Burrator, and he possibly went to the latter directly after staying at Hayward's place. If we connote "few weeks" to be as many as five, this means that Wallace may have been exactly correct in his assessment, while even the full 10 to 26 September period still falls several days short of three weeks.

The point is, that in the few instances I recall that test the accuracy of Wallace's general memory of events – as opposed to his ability to place specific names or dates – he has frequently been vindicated. This is not to suggest that his memory even on such accounts was infallible, but it does argue that more burden of proof should be demanded of accusers before allowing them to take the easy way out.

Acknowledgment

My thanks to George Beccaloni for his comments on an earlier manuscript version of this work.

References

Anonymous, July 1871. Evolution and faith. *Dublin Review* 17, n.s.: 1-40.

Anonymous, 11 Nov. 1905. [book review of Wallace's My Life]. Athenaeum No. 4072: 649.

Anonymous, 17 Feb. 1906. [book review of Wallace's My Life]. Outlook 82: 371-373.

Anonymous, 15 Nov. 1913. Alfred Russel Wallace. British Medical Journal No. 2759: 1338-1339.

Beccaloni, George, August 2020. Was Alfred Russel Wallace "the greatest field biologist of the nineteenth century"? https://www.researchgate.net/publication/343834494

Beddall, Barbara G., 1968. Wallace, Darwin, and the theory of natural selection: a study in the development of ideas and attitudes. *Journal of the History of Biology* 1(2): 261-323.

Boyer, P., P. Robbins, & A. I. Jack, 2005. Varieties of self-systems worth having. *Consciousness and Cognition: An International Journal* 14: 647-660.

Bradburn, N. M, L. J. Rips, & S. K. Shevell, 1987. Answering autobiographical questions: the impact of memory and inference on surveys. *Science* 236: 157-161.

Claeys, Gregory, 2008. Wallace and Owenism. In *Natural Selection and Beyond: The Intellectual Legacy of Alfred Russel Wallace*, edited by Charles H. Smith & George Beccaloni (Oxford, U.K.: Oxford University Press): 235-262.

Gordon, Scott, 1989. Darwin and political economy: the connection reconsidered. *Journal of the History of Biology* 22(3): 437-459.

Marchant, James, May 1905. A man of the time; Dr. Alfred Russel Wallace and his coming autobiography. *The Book Monthly* 2(8): 545-549.

Marchant, James, ed., 1916. *Alfred Russel Wallace; Letters and Reminiscences*. New York: Harper & Brothers.

Mayr, Ernst, 1982. *The Growth of Biological Thought: Diversity, Evolution, and Inheritance*. Cambridge, MA & London: The Belknap Press of Harvard University Press.

Secord, James A., 2000. Victorian Sensation: The Extraordinary Publication, Reception, and Secret Authorship of Vestiges of the Natural History of Creation. Chicago: University of Chicago Press.

Smith, Charles H., June 2016. Did Wallace's Ternate essay and letter on natural selection come as a reply to Darwin's letter of 22 December 1857? A brief review. *Biological Journal of the Linnean Society* 118(2): 421-425.

Stott, Rebecca, 2012. *Darwin's Ghosts: In Search of the First Evolutionists*. London & New York: Bloomsbury.

Thompson, Charles P., Jeffrey A. Gibbons, Rodney J. Vogl, & W. Richard Walker, 1997. Autobiographical memory: individual differences in using episodic and schematic information. In *Intersections in Basic and Applied Memory Research*, edited by D. G. Payne & F. G. Conrad (Mahwah, NJ: Lawrence Erlbaum Associates): 193-213.

Wallace, Alfred Russel, 1853. A Narrative of Travels on the Amazon and Rio Negro. London: Reeve & Co.

Wallace, Alfred Russel, 9 July 1881. letter to Darwin printed in Marchant (1916): 260-261.

Wallace, Alfred Russel, 1905. My Life, Vol. 1. London: Chapman & Hall.

Wyhe, John van, 2013. *Dispelling the Darkness; Voyage in the Malay Archipelago and the Discovery of Evolution by Wallace and Darwin*. Hackensack, NJ: World Scientific.

Earlier Titles in This Series*

Note 11. "Wallace, Darwin, Education, and the Class Question" (October 2020).

Note 10. "The Impact of A. R. Wallace's Sarawak Law Paper Resurrected" (April 2020).

Note 9. "The South Asian Connection" (2019).

Note 8. "Wallace's Earliest Exposures to the Writings of Alexander von Humboldt" (October 2018).

Note 7. "Wallace, Bates, and John Plant: The Leicester Connection" (October 2017).

Note 6. "More on the Mailing Date of the Ternate Essay to Darwin" (April 2015).

Note 5. "Just How Well Known Was Wallace in His Own Time?" (April 2014).

Note 4. "Contributions to *The Garden*, 1875-1912" (October 2011).

Note 3. "Two Early Publications" (October 2011).

Note 2. "The Spelling 'Russel', and Wallace's Date of Birth" (October 2010).

Note 1. "Authorship of Two Early Works" (April 2010).

* Available through *ResearchGate*, or on request from Charles H. Smith.