Alfred Russel Wallace Notes 28. Wallace's 'Change of Mind', Revisited.

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Summary: Alfred Russel Wallace (1823–1913) is best known for his work on the theory of evolution by natural selection, and studies on biogeography. This fame has not, however, prevented appraisals of his work that sometimes depart from rational interpretations of his actual words. In this study, the frequently-offered notion that his adoption of spiritualism in late 1866 caused him to reverse himself on the universality of natural selection is taken to task, with arguments linked to his own words on the subject. Key words: Alfred Russel Wallace, natural selection, human evolution, spiritualism, 'change of mind' hypothesis

Introduction

Among the pivotal events in Wallace's career was his adoption, in the mid- to late-1860s, of the set of beliefs known as spiritualism. Many of his peers were astonished by his apparent regression from a materialistic form of Darwinism to what seemed closer to theism. But appearances can sometimes be deceiving, and I concluded a long time ago (e.g. Smith 1991, p. 31; Smith 1992/1999) that a basic misperception has been operating to sway observers in the wrong direction on this matter.

In this work I summarize what I feel this misperception to be, and then review the evidence surrounding this subject. That evidence supports my position, and in turn suggests that during that 1858-70 period he neither abandoned most elements of materialism, nor became a theist. These latter questions will be explored further in a pair of papers now in preparation.

The basic misperception is this: that in the mid- to late-1860s Wallace abandoned his 1858 views on natural selection, including those on the origin of the so-called 'higher faculties' of the human mental state, and *replaced* the lot with a perspective grounded in spiritualism. It should first be admitted that Wallace did in fact come to a *newly stated* position on the origin of the higher attributes (loosely, intellect and morals) – this is evident from his various period writings on the subject – but the real issue is whether he actually *reversed* himself on the overall matter, as opposed only to effecting an add-on to his previously existing views. This latter interpretation is the one that I support.

Considering the matter in its simplest form, we have the following. Both Darwin and Wallace (and just about everyone else) have agreed that Wallace's 1858 Ternate essay captured the broad essence of what Darwin had also concluded by that time regarding the fundamental elements of operation of natural selection. (There were a few differences, of course, and these later resulted in some divergences of opinion – on sexual selection for example – but these are not critical to the present focus.) It is also a given that Darwin's

position on natural selection did not change markedly from that point on, in particular as regards the origin of humankind's 'above-animals' mental capacities. But, as just noted, Wallace's position did.

This leaves us with two contrasting scenarios to contemplate. First, that Wallace's 1858 view of the way natural selection is related to human evolution was in fact materially the same as Darwin's, and that he actually *did* reverse himself on this in the 1860s. Second, however, it is also possible that Wallace's agreement with Darwin's positions in 1858 only extended so far as they concerned animal (and of course plant) existence. In point of fact there is no mention of, or allusion to, the evolution of humankind in any of the works comprising the 1858 presentation, leaving us with two possible progressions of thought: (1) that something caused Wallace to reverse himself on his and Darwin's overall train of thought, *or* (2) that Wallace came upon some body of thought in the 1860s that helped him complete what was previously, at least in his mind, a still-wanting model (*i.e.*, pertaining only to his 'Darwinian' thoughts on plant and animal evolution). We first turn our attention to the more commonly held view, that Wallace's framework in earlier years was, insofar as all the characteristics of human evolution are concerned, nearly identical to Darwin's.

The 'Change of Mind' Hypothesis

In Smith (2013/2020) I reviewed several important late twentieth century sources' opinions on what might have caused Wallace to supposedly *reverse* himself on the applicability of natural selection to humans. As this review serves present purposes as well, I reproduce it here:

...Nevertheless, many writers have concluded that spiritualism, or perhaps a growing perception that natural selection could not support his utopian social views, did in fact sway his judgment on the matter. Among the writers who have weighed in on this subject are Smith, Kottler, Schwartz, Oppenheim, Malinchak, and Benton.

Roger Smith's essay was important for its early [1972] recognition of the interdependent nature of Wallace's ideas. Smith writes: "A consideration of Wallace's philosophy of nature . . . leads to the conclusion that he saw and intended no discontinuity between general and human evolution and that it is a mistaken view to recognize such a discontinuity." He adds, however, "...it is not clear when or why he became involved with spiritualism" and "it remains an historical problem to determine how far the teleology of the later work was present in his thought during the earlier period." Smith's personal view of Wallace's rejection of natural selection's all-sufficiency is that it was incompatible with his utopian socialist perspective, especially as the principle of utility, one of natural selection's key concepts, could not explain the higher human faculties.

Malcolm Kottler comes to a more definite conclusion: that Wallace's spiritualism "deeply influenced his evolutionary thought"; that is, that "spiritualism stimulated Wallace to reconsider the utility of various human features" and thus became the cause of his break with Darwin on the question of humankind's higher evolution. Kottler also identifies two other lines of thought that conceivably could account for Wallace's break: (1) that he had "two independent grounds for his divergence – scientific and spiritual," and had "originally concluded that natural selection was inadequate in the origin of man on the basis of his utilitarian analysis of various human features" and (2) that "the source of Wallace's recognition of natural selection's inadequacy in the origin of man was his own conception

of the nature of natural selection rather than his belief in spiritualism." But he then rejects these as explanations.

Joel Schwartz's essay gives attention to the spiritualism question as a side issue. He concludes that Wallace's views on man must have started to change before his commitment to spiritualism in 1865, stating: "Wallace's departure from the Darwinian point of view of the origin of man resulted from his inability to bridge his scientific and moral beliefs," and "Wallace's belief in social equality and political reform conflicted with the ineluctable operations of natural law (including natural selection)."

Janet Oppenheim focuses on what she sees as Wallace's inability to recognize a "dividing line between science and spiritualism," and his desire to "eliminate the aura of the supernatural that clung to spiritualist phenomena." But she is unable to decide "whether spiritualism alone can explain Wallace's rejection of natural selection as the sole agent of evolutionary change where the human race was concerned," though "It does appear that Wallace's doubts about natural selection first arose from evidence acquired at the séance table, not from biological or geological discoveries that forced him to reconsider his initial theory of evolution in respect of humanity."

Michele Malinchak notes that "It was only after Wallace engaged in his extensive studies in spiritualism and became convinced of the genuineness of spiritualistic phenomena that he began to inject quasi-religious notions of the guidance of higher intelligences in the development of the human mind into his scientific arguments." She prefers to regard Wallace's adoption of spiritualism as caused by some aspect of his early experiences with the supernatural, and of period social and intellectual trends.

More recently Ted Benton has embraced the "change of mind" model, opining that perhaps "the 1864 paper did address the question of humans' superior qualities, presenting an explanation of them in terms of the gradual emergence of a new target – brain and mind – for the action of natural selection. In the original paper Wallace would have felt no need to explain the advance of human mental development other than by way of random variation (which he always took to be universal in organic beings, and capable of being taken in any direction and accumulated by selective pressures)."

These representative opinions indicate a general sense that Wallace was led to spiritualistic and/or utopian beliefs as a function of his eventual (and perhaps disillusioned) inability to conceive human mental evolution in materialistic terms – in particular, because of limitations he felt are inherent in natural selection. So too, spiritualism might have provided Wallace with a previously missing religious foundation in his life. Thus Wallace is usually viewed as having decided between 1858 and the late 1860s that his original, all-sufficient concept of natural selection was not up to explaining all dimensions of the concept of utility after all, and dropped it accordingly. If so, he could be said to have reversed his opinion as to the all-sufficiency of the theory.

The Alternative

There is an alternative to the just-stated interpretation, as I have suggested on a number of occasions over the past thirty years (Smith 1991, 1992/1999, 2004, 2008, 2013/2020, 2019): that Wallace's original model of natural selection was never intended to explain humankind's 'higher attributes,' and that it took him another ten years or so to supplement his 1858 thoughts with an appropriate explanation for them.

There are some overarching weaknesses in the (fine print) set of opinions presented above. First, they tacitly assume that Wallace's 1858 model actually *did* aspire to account for the 'higher attributes' of humankind in the same way it did physical adaptive structures. Second, their point of departure is what Wallace may have thought about the effect of operation of so-called 'higher abilities' on human physical evolution (as in his 1864 paper on the evolution of human races: Wallace 1864a), as opposed to where these abilities might have come from to begin with – a subject he does not entertain.

And it is also not usually taken into account that during this period, approximately 1862 to early 1865, Wallace had temporarily become infatuated with the materialistic approach of Herbert Spencer (see more below, in [13]), and appears to have been trying his very best at that time to forge an understanding on that basis. I surmise he eventually gave up on this trajectory, concluding (1) that human physical development could be honed through natural selection to a point making 'super-development' *possible*, but (2) that the kinds of 'provident' behaviors he speaks of in the human races paper had to have been produced by a different set of causes from that point onward. As he put it in 1872, in a review of Tylor's *Primitive Culture*: "...although the brain is almost universally admitted to be the organ of the mind, by neither of these lines of research nor by any combination of them, have any definite conclusions been arrived at as to the relation of the brain to the various mental faculties." (Wallace 1872a, p. 69) Lower animals may have had some degree of mental life, but their thoughts could never evolve through natural selection to a point superseding a merely reactive function. [See also the second quotation appearing in [10], below.]

The most succinct reconstruction of Wallace's thoughts during this period by the man himself, however, appears in his autobiography *My Life* in 1905:

...The Origin of Man as an Intellectual and Moral Being. - On this great problem the belief and teaching of Darwin was, that man's whole nature – physical, mental, intellectual, and moral – was developed from the lower animals by means of the same laws of variation and survival; and, as a consequence of this belief, that there was no difference in kind between man's nature and animal nature, but only one of degree. My view, on the other hand, was, and is, that there is a difference in kind, intellectually and morally, between man and other animals; and that while his body was undoubtedly developed by the continuous modification of some ancestral animal form, some different agency, analogous to that which first produced organic life, and then originated consciousness, came into play in order to develop the higher intellectual and spiritual nature of man. This view was first intimated in the last sentence of my paper on the "Development of Human Races under Natural Selection," in 1864, and more fully treated in the last chapter of my "Essays," in 1870. These views caused much distress of mind to Darwin, but, as I have shown, they do not in the least affect the general doctrine of natural selection. It might be as well urged that because man has produced the pouter-pigeon, the bull-dog, and the dray-horse, none of which could have been produced by natural selection alone, therefore the agency of natural selection is weakened or disproved. Neither, I urge, is it weakened or disproved if my theory of the origin of man is the true one. (Wallace 1905, Vol. 2, pp. 16-17)

I should now like to look into these matters by exploring the various kinds of evidence suggesting that Wallace in fact did *not* envision natural selection as an all-sufficient force as of 1858. This evidence, and there is a good deal of it to consider, will include contexts and events that occurred both before and after 1858, and even after 1864. After doing so,

we can take a look at some of the more particular points that have been raised by sources supporting the 'reversal' hypothesis, and consider their worthiness in the discussion.

So, some facts and observations I feel favor my position:

- [1] My first and most obvious objection regarding the main point is that the 1858 Linnean Society writings by Darwin and Wallace contain no apparent specific foundation for incorporating advanced human mental abilities into the process under discussion. Neither do there exist earlier publications on this subject, by either party, that would significantly help us to understand this omission. Thus, mention was left out by one or the other, or both, deliberately, inadvertently, or because the subject was deemed irrelevant to the matter at hand. That there was an inadvertent omission twice seems inherently unlikely, so we should conclude that the topic was likely deemed an unnecessary, or unwanted, complication for an initial go at the general subject. But which: one, the other, or both?
- [2] There appears to be no evidence that, early on, Darwin thought that the evolution of the 'higher attributes' came about through a process significantly differing from the one underlying the emergence of new physical adaptations in the lower animals; thus, there was no later 'change of mind' for him on this point. Wallace, on the other hand, *did* eventually take a different position on the origin of those abilities. But again, this leaves us with two possible explanations to consider: that he later *reversed* himself on natural selection's all-sufficiency with regard to the evolution of the higher attributes as has been commonly assumed –- *or* that he never believed in the all-sufficiency position to begin with, and later simply added on.
- [3] Although the cover letter accompanying Wallace's 1858 essay went missing a long time ago, both Wallace and Darwin later agreed that it been sent to Darwin and Lyell 'for comment,' and not for assistance in trying to publish it. Significantly, Darwin's coterie did not do as Wallace asked, instead choosing to have the work presented in public and then put to print, without his permission, just a few weeks later. This irregular treatment meant Wallace had no final control over his words, and that we should be aware that these especially as related to any possible 'higher' adaptive state of humankind may represent incomplete thoughts in that regard.
- [4] Wallace was obviously pleased that his paper made waves, but perhaps was not so pleased that he had not been given the opportunity to set out a final version of everything he wanted to say. As I have discussed elsewhere (Smith 2008, p. 421; 2020, p. 418), in no fewer than five later published mentions and reprintings of the essay he specially noted how he had not been given a chance to review proofs of the work before it appeared in print. This sounds, between the lines, like a complaint: either (1) that he hadn't liked the way Darwin and his friends had handled the situation overall, or (2) that he regretted not having been given a chance for a final say on what thoughts of his were issued publicly. As there is no further evidence in later statements that he disapproved of the manner of handling (even Hooker/Lyell's untrue and evasive statement in their introduction that "both authors having now unreservedly placed their papers in our hands..."), his concern, if there, was more likely linked to the second matter: that he had been cut off before being allowed to express the full extent of his thoughts.

[5] Wallace never *later* specifically indicated that as of 1858 he believed natural selection alone could account for the 'higher' human attributes. The closest he comes to addressing the matter, actually, is to state the *negative* in a late interview: "My argument has always been that the mind and the spirit, while being influenced by the struggle for existence, have not originated through natural selection." (Northrop 1913, p. 621)

[6] Further, in the Preface to *On Miracles and Modern Spiritualism* he directly implies that he had never undergone a *reversal* of position:

...I am informed that, in an article entitled "Englische Kritiker und Anti-Kritiker des Darwinismus," published in 1861 [sic 1871], he has put forth the opinion that Spiritualism and Natural Selection are incompatible, and that my divergence from the views of Mr. Darwin arises from my belief in Spiritualism. He also supposes that in accepting the spiritual doctrines I have been to some extent influenced by clerical and religious prejudice. ...[but] The facts beat me. They compelled me to accept them, as facts, long before I could accept the spiritual explanation of them: there was at that time "no place in my fabric of thought into which it could be fitted." By slow degrees a place was made; but it was made, not by any preconceived or theoretical opinions, but by the continuous action of fact after fact, which could not be got rid of in any other way.... Let us now consider the statement as to its incompatibility with Natural Selection. Having, as above indicated, been led, by a strict induction from facts, to a belief – 1stly, In the existence of a number of preterhuman intelligences of various grades; and, 2ndly, That some of these intelligences, although usually invisible and intangible to us, can and do act on matter, and do influence our minds, - I am surely following a strictly logical and scientific course, in seeing how far this doctrine will enable us to account for some of those residual phenomena which Natural Selection alone will not explain. In the 10th chapter of my Contributions to the Theory of Natural Selection I have pointed out what I consider to be some of these residual phenomena; and I have suggested that they may be due to the action of some of the various intelligences above referred to. This view... I maintained, and still maintain... is one which is logically tenable, and is in no way inconsistent with a thorough acceptance of the grand doctrine of Evolution, through Natural Selection, although implying (as indeed many of the chief supporters of that doctrine admit) that it is not the all-powerful, all-sufficient, and only cause of the development of organic forms. (Wallace 1875a, pp. vii-viii)

The final three sentences in this selection are especially noteworthy, as their content checks all the boxes for describing an 'add-on,' as opposed to a 'reversal.'

[7] Earlier, in his 1864 paper on the origin of human races, Wallace wrote:

But while these [physical] changes had been going on, his mental development had correspondingly advanced, and had now reached that condition in which it began powerfully to influence his whole existence, and would therefore become subject to the irresistible action of 'natural selection.' This action would rapidly give the ascendancy to mind: speech would probably now be first developed, leading to a still further advance of the mental faculties, and from that moment man as regards his physical form would remain almost stationary. (Wallace 1864a, p. clxvi).

In the revision of this paper included in *Contributions to the Theory of Natural Selection* (Wallace 1870a), the first sentence of the above has been changed to: "But while these changes had been going on, his mental development had, from some unknown cause, greatly advanced, and had now reached that condition in which it began powerfully to influence his whole existence, and would therefore become subject to the irresistible

action of 'natural selection." The change from "correspondingly" to "from some unknown cause, greatly" has been pointed to as possibly signaling his adoption of spiritualism in the interim – a not unfair inference – but it is important to note that the earlier wording is at least as likely meant to convey his uncertainty at that point (*i.e.*, in early 1864) as to how the advance had been promoted: instead, he simply treats it as a correlative outcome, without attempting to specifically identify or characterize it. The 1870 substitution of "unknown cause, greatly" is thus not only a likely allusion to spiritualism, but a concession that his 1864 position was not effective in characterizing the nature of the advance as a mere correlation of outcomes.

[8] Some might ask why Wallace kept quiet on the overall question, but he must have seen on his first reading of On the Origin in early 1860 that Darwin was likely following a different path on the matter, and was unwilling to make waves at that point. Thus, perhaps this was just Wallace being Wallace: he once went out of his way to write a text note specially emphasizing that "It is never my practice to condemn evils without suggesting remedies" (Wallace 1898, p. 368f). Wallace always considered it prudent to look beyond mere complaint as the means to an end; that is, it was not his style to dwell on perceived errors if he could not himself pose some kind of remedy for them - indeed, his overall oeuvre is packed with works with titles containing the words 'remedy' or 'suggestion' or 'substitute', or texts directly dedicated to such efforts. (A few textual examples: "With regard to the special question: how the different races of man could have originated? it appeared to him that those who totally object to the arguments of Mr. Darwin, Professor Huxley, and Sir Charles Lyell, should give anthropologists something in return for them; for they cannot be satisfied with mere negation. ... they ought at least to give a substitute for the theory they attempted to controvert." [Wallace 1864a, p. cxxix]; "...indirect proofs have been so cogent as to overcome the most violent prejudice and opposition [to natural selection], and to convert a large majority of naturalists to a belief in its agency. It is, therefore, rather late in the day to deny its existence without adducing some adequate and proved substitute." [Wallace 1894, pp. 177-178]; "Having rejected Mr. Darwin's theory of female choice,... I may be asked what explanation I have to offer as a preferable substitute." [Wallace 1897, p. 288]) So, having no explanation for these changes in mental development at hand until 1866, he simply kept quiet for the time being.

[9] Wallace first reached the island of Celebes (Sulawesi) in September 1856, then spent the rest of that year and all of 1857 there and in the Moluccas. During this period he became aware of a variety of apparently locally-induced adaptive responses, especially among butterflies. He summarizes his thoughts on these in Wallace (1865a), and for some years continued to appeal to supra-natural selection 'local causes' as a way of explaining them; for example, in 1875 he wrote:

...Many of these curious modifications may, it is true, be due to other causes than climate only, but they serve to show how powerfully and mysteriously local conditions affect the form and structure of both plants and animals; and they render it probable that changes of constitution are also continually produced, although we have, in the majority of cases, no means of detecting them. It is also impossible to determine how far the effects described are produced by spontaneous favourable variations or by the direct action of local conditions; but it is probable that in every case both causes are concerned, although in constantly varying proportions. (Wallace 1875b, p. 87; see also Wallace 1877)

It is thus apparent that throughout a period beginning even before his elucidation of natural selection, he was open to believing that forces above and beyond conventional causalities might be contributing to evolutionary change. This leaning ultimately derived from his debt to von Humboldt's leading idea that "ever more recondite forces" (Smith 2008, 2016) lay at the heart of environmental organization. In 1901, Wallace put it: "Evolution, as a general principle, implies that all things in the universe, as we see them, have arisen from other things which preceded them by a process of modification, under the action of those all-pervading but mysterious agencies known to us as 'natural forces,' or, more generally, 'the laws of nature.'" (Wallace 1901, pp. 3-4) Wallace regarded natural selection as one of those natural laws, but only one (and this is not the only time he stated such a position, as is apparent from the quote given in [6] above). So, even during his 1858 to 1866 'prespiritualism' period he was entertaining the notion that additional, 'beyond-natural selection,' forces might have to be invoked to fully understand how evolution unfolded.

[10] In his pre-1858 days of considering the process of evolution, Wallace took the position that certain anomalous adaptive features represented incipient structures pointing toward future adaptive outcomes. In his 1855 Sarawak Law essay, for example, he wrote:

Another important series of facts, quite in accordance with, and even necessary deductions from, the law now developed, are those of *rudimentary organs*. That these really do exist, and in most cases have no special function in the animal œconomy, is admitted by the first authorities in comparative anatomy. The minute limbs hidden beneath the skin in many of the snake-like lizards, the anal hooks of the boa constrictor, the complete series of jointed finger-bones in the paddle of the Manatus and whale, are a few of the most familiar instances....To every thoughtful naturalist the question must arise, What are these for? ...Now, if, as it has been endeavoured to be shown, the great law which has regulated the peopling of the earth with animal and vegetable life is, that every change shall be gradual; that no new creature shall be formed widely differing from anything before existing; that in this, as in everything else in Nature, there shall be gradation and harmony, – then these rudimentary organs are necessary, and are an essential part of the system of Nature. (Wallace 1855, pp. 195-196)

Wallace would ultimately give up on the notion that this kind of biological structure is rudimentary, or incipient, in nature, adopting instead the Darwinian view that they are vestigial remnants. Nevertheless, in later years he continued to apply the interpretation of incipiency to certain mental phenomena, especially of a paranormal kind – for example, as related to mediumship and witchcraft, two mental abilities he believed would become more prevalent as time went on. This is in part a product of his obsession with the position of Robert Chambers that humans would eventually evolve into superhuman beings. Still, it is also consistent with his adherence to the Humboldtian notion that 'ever-more recondite' laws of organization existed (a notion that turns up frequently in Wallace's writings, and throughout his career). Consider the following passage:

...So, those faculties which enable us to transcend time and space, and to realize the wonderful conceptions of mathematics and philosophy, or which give us an intense yearning for abstract truth (all of which were occasionally manifested at such an early period of human history as to be far in advance of any of the few practical applications which have since grown out of them), are evidently essential to the perfect development of man as a spiritual being, but are utterly inconceivable as having been produced through

the action of a law which looks only, and can look only, to the immediate material welfare of the individual or the race. (Wallace 1870a, pp. 358-359)

Wallace first used the word 'recondite' in 1856 in an essay on the orangutan: "The extraordinary excrescences of many insects, the fantastic and many-coloured plumes which adorn certain birds, the excessively developed horns in some of the antelopes, the colours and infinitely modified forms of many flower-petals, are all cases, for an explanation of which we must look to some general principle far more recondite than a simple relation to the necessities of the individual." (Wallace 1856a, p. 30) His first exposure to the word may have been through another work by Robert Chambers, 1846's *Explanations*.

[11] We should not forget that the early intellectual influences on Darwin and Wallace were quite different, and that the cumulative effect these differences had on the two men's thought was likely quite significant. Darwin seems to have been rather more influenced by Lyellian/Huttonian uniformitarianism than was Wallace, with the lessons of paleontology speaking more in the former's case for continuity, and in the latter's to progressive change. Importantly, Wallacian natural philosophy was dominated more by Humboldtian thoughts, including the latter's ecological views that an 'equilibrium of forces' underlies planetary processes. Further, Wallace was still completely enamored with the Robert Owen position that people's environment was more dominant than lineage in establishing their character: again, a nod toward a non-historical-continuity interpretation. Later, his attention to the lectures of spiritualist Emma Hardinge would inspire this 'forces' quote from *The Scientific Aspect of the Supernatural*:

But it may be argued, even if such beings should exist, they could consist only of the most diffused and subtle forms of matter. How then could they act upon ponderable bodies, how produce effects at all comparable to those which constitute so many reputed miracles? These objectors may be reminded, that all the most powerful and universal forces of nature are now referred to minute vibrations of an almost infinitely attenuated form of matter; and that, by the grandest generalisations of modern science, the most varied natural phenomena have been traced back to these recondite forces.... Every green blade and bright blossom that gladdens the surface of the earth, owes its power of growth and life to those vibrations we call heat and light, while in animals and man the powers of that wondrous telegraph whose battery is the brain and whose wires are nerves, are probably due to the manifestation of a yet totally distinct "mode of motion" in the same all-pervading ether. In some cases we are able to perceive the effects of these recondite forces yet more directly. We see a magnet, without contact, or impact of any ponderable matter capable to our imagination of exerting force, yet overcoming gravity and inertia, raising and moving solid bodies. We behold electricity in the form of lightning riving the solid oak, throwing down lofty towers and steeples, or destroying man and beast, sometimes without a wound. And these manifestations of force are produced by a form of matter so impalpable, that only by its effects can it ever be known to us. With such phenomena everywhere around us, we must admit that if intelligences of what we may call an etherial nature do exist, we have no reason to deny them the use of those etherial forces which are the everflowing fountain from which all force, all motion, all life upon the earth originate.... To a race of blind men, how utterly inconceivable would be the faculty of vision, how absolutely unknowable the very existence of light and its myriad manifestations of form and beauty. Without this one sense, our knowledge of nature and of the universe could not be a thousandth part of what it is. By its absence our very intellect would have been dwarfed,

we cannot say to what extent; and we must almost believe that our moral nature could never have been fully developed without it, and that we could hardly have attained to the dignity and supremacy of man. Yet it is possible and even probable that there may be modes of sensation as superior to all ours, as is sight to that of touch and hearing. (Wallace 1866a, pp. 5-6)

[12] In September 1863 Wallace delivered a paper entitled 'On the Varieties of Men in the Malay Archipelago' at the annual meeting of the British Association for the Advancement of Science. In an abstract of the presentation printed in *Anthropological Review* (Wallace 1864b, p. 444), discussion following it was reported in which Wallace was quoted as saying: "With regard to the influence of mind on the changes of race, there were no doubt many varied causes to be taken into account, and he was not prepared to say that any particular influence had not been at work." The use of double 'nots' here clearly implies that he has not yet settled on a comprehensive interpretation; thus, less than a year before the 1864 paper on human races, he apparently was already turning Darwin's reading of the situation over in his mind. Certainly, one of his first interests upon returning to England on 1 April 1862 was human evolution; Darwin waited for years before treating humankind, but Wallace didn't; this suggests he had it more on his mind than Darwin did at that point. Further, the 'On the Varieties of Men' paper had given him an opportunity to reflect on all the kinds of human morality and behavior he had witnessed overseas, and to reconsider the context of their origins.

[13] In his 1905 autobiography My Life (Vol. 1, p. 104) Wallace points out how, early on, he had adopted a Spencerian brand of 'individualism' (i.e., materialism); nine years earlier he wrote, in a letter to Keir Hardie: "As a boy I was a disciple and ardent admirer of Robert Owen; and though in middle life, while chiefly engaged in scientific work, I was influenced by the individualistic teaching of Herbert Spencer, I have now returned to my first love, and am a firm advocate of the co-operative commonwealth as giving the best promise of human happiness..." (Wallace 1896, p. 251). I would argue that Wallace's break with Spencer came in two steps, the first following his unsuccessful (to himself, at least) attempt at a wholly materialistic explanation of the development of human races in the 1864 paper (note that in letters to Darwin dated 30 September 1862 and 2 January 1864 he emphasizes how he is reading Spencer's First Principles and Social Statics, respectively, and effectively warns Darwin to 'watch out' for the competition), the second, much later, as he contemplated Spencer's lack of support for the land nationalization movement. But why would this sequence of adoption and disillusionment have taken place at all if Wallace had felt all the way through that materialism à la Darwin alone was the route to understanding the full process?

[14] If Wallace had been confident since 1858 that a Darwinian form of natural selection could fully account for the higher human faculties, why would he have suddenly dropped everything he was doing for a full year (mid-1865 to mid-1866) to investigate spiritualism to begin with? Yes, it might have suddenly occurred to him that it possibly led to a better explanation for the development of the 'higher attributes' than did natural selection, and after studying the matter discarded all of his earlier views accordingly, but it is a priori just as likely that he merely added on, having never thought natural selection could produce them, and thereby filling a void in his previous appreciation. This is all the

more apparent from that fact that apart from his reconsideration of the 'higher abilities,' there were few if any reversals in his other biological thoughts from pre-1864 positions.

[15] It is universally agreed that Robert Chambers's anonymously-penned Vestiges of the Natural History of Creation (1844) made a strong impression on Wallace, including its message of the eventual evolution of perfected, 'god-like' human beings. Darwinian natural selection is based more centrally on the idea that phylogenesis results from random walks, with no assumptions of prior directions, or visions of 'perfected' or 'godlike' outcomes. At the beginning, Wallace's version of animal/plant natural selection doesn't depart strongly from this position, at least to the extent that he accepted that particular adaptational changes were not preordained, but instead depended on a chance selection process that identifies 'whatever' utilitarian abilities whose addition promotes continuance (e.g.: "It is the same in animals: the puppies, or kittens, or rabbits of one litter differ in many ways from each other – in colour, in size, in disposition; so that, though they do not 'vary continuously in one direction,' they do vary continuously in many directions: and thus there is always material for natural selection to act upon in some direction that may be advantageous." -Wallace 1863, p. 307 [note my emphasis of Wallace's use of the word 'some']). But there is an obvious disconnect here: that is, that Darwin's concept of the manner of organic change is not likely to lead to a being 'perfected' in the sense of Chambers's portrayal, which Wallace already seemed at ease with (and I am unaware of any kind of evidence suggesting Wallace gave up on Chambers's lead in this regard after the time of his first exposure to him in the mid-1840s). Constrained by the Darwinian principle of utility. Wallace must have wondered how apparently inutile human characters could emerge and further develop. He eventually invoked spiritualism as the means through which feedback akin to his 'steam engine governor' interpretation of natural selection could pass: the lessons/emotions communicated as dreams and other streamof-consciousness interventions subtly advanced by 'spirits' could invoke considered (deliberate) changes in our subsequent behaviors. This process, as long as it remained voluntary (i.e., remained within our individual control of uninfluenced decision-making), was indefinitely functional, leading to a perfection of responses attuned to 'provident' acts extending "beyond time and space."

[16] Along these lines, the 'belief not voluntary, thus not meritorious' reasoning expressed in Wallace's famous 1861 letter to his brother-in-law (Marchant 1916, pp. 65-67) left Wallace with another problem for his 'perfecting humans' leaning: that is, what's the natural mechanism that causes advances in human consciousness, as opposed to the mere maintenance of stability/equilibrium (*i.e.*, as in the 'steam-engine governors' model of natural selection)? In the case of biological evolution, cumulative change in the organism's overall environment can be imagined to generate changing, evolving, selection pressures, but if belief is not voluntary, what causes us – but does not *force* us (as would happen in a domestication-like process) – to more and more fairly balance evidence (that is, to move in a 'meritorious' direction)? Wallace didn't know as of 1858, nor did he in 1861. But by 1866, he thought he did: feedback from the 'spirit realm.'

[17] In 1864 Wallace wrote:

Here I think, we have a proof that the absence of civilisation does not necessarily imply the want of capacity to receive it. An external impulse is in every case required; for I believe

no instance can be shown of a homogeneous race having made much or any progress when uninfluenced by the contact of other races. Civilisation has ever accompanied emigration and conquest – the conflict of opinion, of religion, or of race. In proportion to the diversity of these mingling streams, have nations progressed in literature, in arts, and in science; while, on the other hand, when a people have been long isolated from surrounding races, and prevented from acquiring those new ideas which contact with them would induce, all progress has been arrested, and generation has succeeded generation with almost the same uniformity of habits and monotony of ideas as obtains in the animal world, where we impute it to that imaginary power which we designate by the term instinct. (Wallace 1865b, p. 206).

Had Wallace been thinking parallel thoughts as to how *individual* humans added to a cumulatively developed 'beyond time and space'-oriented decision-making ability? If an 'external impulse' was required to stimulate progressive development (mostly, complexification) in the animal and plant world, perhaps there were analogous forces operating at the level of conscious awareness that, without coercing individual humans into particular acts, nevertheless served a cumulative refinement in their individual – and collective – thoughts... That same year he was reported as having stated: "It did not appear to him that it could be said of any race of men that it was unable to accept civilization. The inhabitants of Great Britain were once savages, and the Romans might have said of them that they were incapable of receiving civilisation, with as much justice as we could say so of the Negro." (Wallace 1864b, pp. 443-444). But again, what manner of 'analogous forces'? (Note also that one of Wallace's earliest surviving writings, "The Advantages of Varied Knowledge," included in his autobiography *My Life*, advances this very theme: that personal isolation does not serve self-evolution.)

[18] Pursuant to [17], the progression of Wallace's train of thought over the first several months of 1865 on the forces necessary to induce a 'meritorious' kind of societal evolution is starkly evident in four short writings (Wallace 1866b, 1865c, 1865d, 1865e) he composed just before taking his year-off to study spiritualism. These dwell on the kinds of moral/ethical changes that will be needed to propel a sustained advance in human social relations, and are especially relevant to the 'belief is not voluntary, and therefore not meritorious' notion. His attraction to the *philosophical message* of spiritualism shortly thereafter is thereby explained.

In the first of these works, originally presented at a meeting on 19 September 1864, he was described as saying:

The author believed, however, that the relation of a civilized to an uncivilized race over whom it rules is exactly analogous to that of parent to child, or of adults to infants, and that a certain amount of despotic rule and guidance is as essential in the one case as it is in the other. The only question is as to the manner in which the "paternal despotism" shall be carried out; and he thinks that the system of upholding and regulating the power of the native chiefs, whom the people are already accustomed to obey, of introducing systematic cultivation under government superintendence, and favouring the exertions of missionaries and native teachers, is a far better plan than throwing open a country to the competition of a low class of European traders and cultivators, which inevitably leads to the degradation of the natives, and a conflict of interests... (p. 150).

In other words, 'being led' is better than 'being exploited' through inculcation and imposed domination. He continued to believe this to the end; consider Wallace (1906), in which he argues that the best way for colonial powers to rule their possessions is to allow local leaders to continue their own traditional means of keeping order.

The paper was then read on 24 January 1865 at another meeting; this time the whole thing was set to print the following year (1866). In it he writes:

...In Ceylon and in India we have English capital largely invested in coffee and indigo culture, but can we point to any corresponding improvement in the moral or social condition of the natives? In Java and in North Celebes, on the other hand, the population is steadily increasing, and is greatly improved in material and moral condition. The people get wealthy, and the Government obtains a large revenue without direct taxes, and at the same time is carrying on the education of the whole race towards a higher state of society. The system which produces such results I believe to be a good one, and I think that we should hesitate in applying the principles of free competition to the relations between ourselves and savage races, if we ever expect them to advance in civilisation or even to maintain their existence upon the earth. (Wallace 1866b, p. 69)

Thus, a 'win-win' situation: economic and moral improvement corresponding to an "advance in civilisation."

In a letter to the Editor published on 6 May 1865, expanding on ideas presented in the letter to his brother-in-law in 1861 (per [16]) above, he argues:

Mr. Mill truly says, that a voter is rarely influenced by "the fraction of a fraction of an interest, which he as an individual may have, in what is beneficial to the public," but that his motive, if uninfluenced by direct bribery or threats, is simply "to do right," to vote for the man whose opinions he thinks most true, and whose talents seem to him best adapted to benefit the country. The fair inference from this seems to be, that if you keep away from a man the influences of bribery and intimidation, there is no motive left but to do what he thinks will serve the public interest – in other words, "the desire to do right." (Wallace 1865c, p. 517)

Wallace believes that opinions untainted by selfish expressions of thought should naturally lead in a positive direction, "serving the public interest."

On 16 May 1865 he provided the following discussion, at another meeting:

...To such people [i.e., 'savages'] it is idle to speak of religion, they cannot understand what it means. The best effects are produced when the missionary shows that he has no selfish interest — that he seeks only to do good; and this, in the speaker's opinion, would move the people more than aught besides. (Wallace 1865d, p. cclxxxviii)

l.e., inculcation is counterproductive; people are led naturally by their innate perceptions of meritorious behavior when they are not diverted by instruction types based on selfish motives.

Finally, in a short article titled 'How to Civilize Savages' published in *Reader* on 17 June 1865, he writes:

A form of religion which is to maintain itself and to be useful to a people, must be especially adapted to their mental constitution, and must respond in an intelligible manner

to the better sentiments and the higher capacities of their nature. ... The savage may well wonder at our inconsistency in pressing upon him a religion which has so signally failed to improve our own moral character, as he too acutely feels in the treatment he receives from Christians. (Wallace 1865e)

The first sentence of this quotation is right to the point: again, moral evolution (*i.e.*, 'advancing civilization') is achieved by choice, not through inculcation and indoctrination.

It was just at this time that Wallace began his in-depth study of spiritualism – *not* a coincidence! The idea that Wallace became a spiritualist because he was 'seduced' by spiritualist manifestations or distracted by the breakup of his engagement in early 1865 is absurd, as discussed in Smith (2003-2006; 2005, pp. 170-171).

[19] Doesn't it seem strange to anyone else that Wallace published absolutely nothing on the subject of natural selection between 1 July 1858 and October 1863 (Wallace 1863) – a period of more than five years? Could this possibly be because he was still uncomfortable with the one-dimensional causality inherent in Darwin's model (not so much in natural selection *sensu stricto*, but instead in its relation to evolutionary cosmology in general)? Along these lines, why, according to the account in *My Life*, did he go to visit Spencer, right after his return from the East, with questions regarding the origin of species? – that is, why did he immediately start entertaining general questions about evolution while still digesting the tangible results of his own field investigations? Might he still have been uncertain as to humankind's place in the process?

[20] In 2004 I wrote "Still, Wallace had by this time spent many years in the field among semi-primitive and primitive peoples, and one surmises he anticipated that his new theory, clever as it was, nevertheless could not account for the existence of higher human attributes such as mathematical and artistic abilities. So the Ternate essay contains no mention of humankind: he simply left consideration of the problem for some later time when its final cause might become apparent to him." (Smith 2004, p. 260) Earlier I had written (Smith 1991, p. 68): "An equally significant influence was Wallace's conclusion – in part arising from his years of living among tropical peoples – that many strictly human faculties apparently had no survival utility." There is another disconnect here: as of 1858 utility became the central concept in the Darwinian/Wallacean model of natural selection in animals and plants, whereas before that time Wallace had denied necessary utility arguments. This change in his position was easy enough to make at the animal/plant level, but not so easy when considering the advanced abilities of humans. For example, in early 1859 he writes:

...Their houses are very similar, but are raised 12 or 15 feet high, on a perfect forest of thin poles, a few of which are put diagonally, and prevent the whole from falling with the first wind. It is singular that these people know the use of diagonal struts, whereas the comparatively civilized Bugis and Macassar-men are quite ignorant of it, their houses being invariably inclined to one side by the prevalent winds, and only kept from falling by the posts being pretty firmly set in the ground, and the building connected with them framed strongly of bamboos." (Wallace 1860a, p. 173)

Initially confused, he merely points out – but doesn't try to solve – this anomaly of human behavior, probably instead waiting for some kind of inspiration as to just what kind of utility is – or isn't – being demonstrated, and what its evolutionary context might be.

- [21] The occasional suggestion in the literature that Wallace ever needed some kind of religious belief system to provide him with a spiritual foundation is contradicted by the fact that he considered himself a practically lifelong agnostic, as evidenced by his long discussion on the subject in Volume One of *My Life*, including the statements that:
 - (1) "...what little religious belief I had very quickly vanished under the influence of philosophical or scientific scepticism. This came first upon me when I spent a month or two in London with my brother John, as already related in my sixth chapter; and during the seven years I lived with my brother William, though the subject of religion was not often mentioned, there was a pervading spirit of scepticism, or free-thought as it was then called, which strengthened and confirmed my doubts as to the truth or value of all ordinary religious teaching" (p. 227), and (2) "...by the time I came of age I was absolutely non-religious, I cared and thought nothing about it, and could be best described by the modern term 'agnostic'" (p. 228).

Anyone who doubts his lasting skeptical position on conventional religious institutions and belief need only look at his dozens of writings, throughout his entire career, criticizing those institutions and many of their trappings – missionaries, dogmas, ceremonies, prayer, etc. – not to mention the fact that he almost always avoided use of the word 'God' in both his personal correspondence and published writings, unless he was describing someone else's thoughts. The idea that such a man turned to spiritualist beliefs to fulfill a conventional kind of religious void in his life is ridiculous. (True, he did note a couple of times in private communications how "spiritualism was his religion," but the tongue-incheek tone he was employing, taken in context, might just as easily have underlain a quip such as "yes, money is now my religion.")

[22] Another general notion Wallace picked up from his study of Humboldt was that one was "not to draw conclusions from a very partial view of Nature." (see related remarks in Wallace 1856b, p. 230; 1860b; 1870b; 1893, p. 497; 1901). Regarding his five-year-plus (1858-1863) delay in writing on natural selection, was he perhaps just observing this earlier lesson once again, in this instance worrying that his new, but incomplete, understanding was not yet capable of dealing with the higher attributes of humankind?

[23] In 1972, Wallace's model of natural selection was identified as an early example of cybernetic thinking by anthropologist Gregory Bateson:

...The steam engine with a governor is simply a circular train of causal events, with somewhere a link in that chain such that the more of something, the less of the next thing in the circuit.... If causal chains with that general characteristic are provided with energy, the result will be... a self-corrective system. Wallace, in fact, proposed the first cybernetic model. ...Basically these systems are always *conservative*... in such systems changes occur to conserve the truth of some descriptive statement, some component of the *status quo*. Wallace saw the matter correctly, and natural selection acts primarily to keep the species unvarying... [perhaps more exactly, 'in balance with' the environment, as we now can distinguish between stabilizing and directional selection] (Bateson 1972, p. 435)

Is it too much to suggest that, in terms of the evolution of the higher functions, that between 1858 and 1865, Wallace was just looking for some analogous force/process that could change the way people think, but in a way increasingly featuring cooperation over competition?

[24] Jon Hodge (2023, p.187) has recently opined:

...I think Wallace's selectionism about animals in the wild is individualist in its self-help-only conception of the struggle for existence, and its hereditarian conception of variations, varieties and species. And I think that Wallace's selectionism is individualist because he was a socialist aligned with Owen and Spencer. His views, on self-domesticating, social, sympathetic, cooperative, altruistic humans, were contrasted so thoroughly with his views of wild animals, precisely in order that his views about humans could be supported by these very contrasts.

This is very much to the point, possibly even suggesting that Wallace had already concluded by 1858 that evolution at the level of advanced conscious performance must operate increasingly through cooperative acts, rather than competitive ones. In a recent paper (Smith 2022) I contrast the 'self-help-only' view of the struggle for existence with the setting of more altruistic motives; Spinoza had come to such an understanding many decades earlier, and I don't see why Wallace couldn't have as well. As of 1858, however, he could not see what kind of mechanism could explain a human societal change that increasingly rejected the 'me-first' dynamic: 'raw' natural selection seemed unlikely to produce adaptations that accorded with anything more than the immediate challenges of the physical and biological environment. Recall that Wallace had long been a sympathizer with a number of Owenian/Spencerian ideals (for example, on fairness, social justice and due, and land reform), and many of these had little place in the world of tooth-and-claw nature. Hodge's observation in fact fits my model of events in at least three ways. First, it carries the idea that Wallace, even before turning to philosophical biological subjects, had already viewed human socialization as a matter distinct from rote organic change (his allegiance to Owenism began at the age of fourteen). Second, and importantly, it shows how Wallace 'added on' to his understanding of (universal) evolution not just once (with his adoption of spiritualism in 1866), but again, in parallel fashion, in the 1880s: first, with his working out of the theory of land nationalization in the early 1880s, and then in the late 1880s with his eventual embrace of full-blown socialism, à la Edward Bellamy. Finally, it shows again how consistent he was in not leaping to conclusions: more than eight years passed (1858-1866) before he posed his first 'add-on' to understanding evolutionary process at the individual level (i.e., spiritualism), and more than forty (1830s to 1880s) in his parallel move toward socialistic ideals, which embraced the notion of cooperation over competition.

[25] Further, in his one allusion to human influences in the Ternate essay Wallace says:

...the difficulty [of identifying what constitutes a 'variety'] is overcome by assuming that such varieties have strict limits, and can never again vary further from the original type, although they may return to it, which, from the analogy of the domesticated animals, is considered to be highly probable, if not certainly proved. It will be observed that this argument rests entirely on the assumption, that *varieties* occurring in a state of nature are in all respects analogous to or even identical with those of domestic animals, and are governed by the same laws as regards their permanence or further variation. But it is the object of the present paper to show that this assumption is altogether false, that there is a general principle in nature which will cause many varieties to survive the parent species, and give rise to successive variations departing further and further from the original type,

and which also produces, in domesticated animals, the tendency of varieties to return to the parent form. (Wallace 1858, pp. 53-54)

This 'special case' kind of plea re-emerges in a new form in a note added to the 1871 edition of *Contributions to the Theory of Natural Selection*, in which Wallace states:

Some of my critics...have accused me of unnecessarily and unphilosophically appealing to "first causes" in order to get over a difficulty - of believing that "our brains are made by God and our lungs by natural selection;" and that, in point of fact, "man is God's domestic animal" [calling for a 'higher Force', and] that this "higher Force" is the Deity.... Now, in referring to the origin of man, and its possible determining causes, I have used the words "some other power" - "some intelligent power" - "a superior intelligence" - "a controlling intelligence," and only in reference to the origin of universal forces and laws have I spoken of the will or power of "one Supreme Intelligence." These are the only expressions I have used in alluding to the power which I believe has acted in the case of man, and they were purposely chosen to show, that I reject the hypothesis of "first causes" for any and every special effect in the universe, except in the same sense that the action of man or of any other intelligent being is a first cause. In using such terms I wished to show plainly, that I contemplated the possibility that the development of the essentially human portions of man's structure and intellect may have been determined by the directing influence of some higher intelligent beings, acting through natural and universal laws. (Wallace 1871, pp. 372-372A)

In the 1858 work, Wallace is distinguishing between natural forms of selection and a domestication process in which particular traits are selected for deterministically, as human-initiated first causes. In the 1871 note, he similarly rejects the first causes understanding ("God's domestic animal") in favor of one in which 'selectable information' is relayed to individual people "through natural and universal laws." It is at first troubling that he uses the wording "determined by the directing influence of some higher intelligent beings", but in a 1910 interview he clarifies his meaning in a response to a question the interviewer poses about spiritual influence and continuity: "I do not mean that the control is absolute or that it is of the nature of interference. The control is evidently bound by laws as absolute and irrefragable as those which govern man and his universe. It is certainly dependent on us in a very large measure for its success. I believe we are influenced, not interfered with..." In 1874 he wrote: "Spirits can communicate through properly-endowed mediums. They are attracted to those they love or sympathise with, and strive to warn, protect, and influence them for good, by mental impression when they cannot effect any more direct communication; but, as follows from clause (2), their communications will be fallible, and must be judged and tested just as we do those of our fellow-men." (Wallace 1874, p. 801) Wallace's use of domestication in the 1858 discussion may well already be looking forward to future discussions in which he would argue that humankind is indeed a special case not covered by the specific model entertained.

[26] It needs to be emphasized that Wallace's involvement with mesmerism began as early as 1845, around the same time he became a Chambers-influenced supporter of transmutationism. This is *very* important; it signals his nearly simultaneous consideration of both the physical process of evolution, and how there seemed to be real causalities operating at the level of the nonphysical. It should not be surprising that he returned to such deliberations twenty years later. This connection is also revealed in words he wrote

in 1872: "...the most sensitive mesmeric patients are almost invariably mediums. The idea that it is necessary for me to inform 'spiritualists' that I believe in the power of mesmerisers to make their patient believe what they please, and that this 'information' might 'bring about investigations leading to valuable results' is really amusing." (Wallace 1872b, p. 364)

Bread Crumbs

Plenty of further tie-ins to this line of thinking can be recognized across the sum of Wallace's writings. I believe I have made my point through the twenty-six lines of argument presented above, but next produce a set of 'bread crumbs' that the reader may either pass over (and proceed directly to the 'Counterindications' subheading beyond), or use to further add to their digestion of the subject:

[A] ...If they [i.e., 'savages'] were told by any traveller that there was an invisible Creator of the universe, so far as they were capable of receiving such an idea they would receive it, and repeat it afterwards when questioned on the subject; but so far as he was able to ascertain, they had no such idea whatever. They had no desire for knowledge, but were contented to go on in their own ways. They have, indeed, some vague ideas of the existence of unknown powers; diseases, for instance, were supposed to be unnatural, and to be caused by some supernatural agency, but that was very different from the belief in a God. (Wallace 1864c, p. ccxx)

This shows that Wallace could distinguish at that point between the notions of 'Godly influence' and the 'supernatural'. Wallace later disavowed his use of the term 'supernatural' altogether, as it had always been his argument that the phenomena in question were, in fact, elements of nature (see Wallace 1905, Vol. 2, p. 280; Anon. 1913; Wallace 1874, p. 806) — perhaps he first recognized his terminology mistake after receiving a 10 February 1867 letter from the publisher Robert Chambers that included the following remark: "My idea is that the term supernatural is a gross mistake. We have only to enlarge our conceptions of the natural, and all will be right." (Robert Chambers to ARW, letter dated 10 Feb 1867 WCP2547)

[B] I have always wondered why Wallace did not much tolerate criticism of mediums, even where there seemed to be good reason to do so. One likely excuse was that he thought it unreasonable to expect them to produce positive results at every sitting, and tolerated their (perhaps) sometime deceptions as being forced by 'off-days' – this allowed them to continue to make a buck. But beyond that, his overall model of human evolutionary advance recognized mediums as anticipatory – incipient – elements in that process (see Smith 2016), and therefore that on the whole they simply *couldn't* be disreputable, society-encumbering people.

[C] In 1856 Wallace wrote:

...Dyak youths...possess...numerous puzzles and tricks of great ingenuity, with which they amuse themselves on dull evenings or during wet weather. These apparently trifling matters are yet of some importance, in arriving at a true estimation of their social state. They show that these people have passed beyond that first stage of savage life, in which the struggle for existence absorbs their whole faculties, in which every thought and every idea is connected with war or hunting or the provision for their immediate necessities. It shows too an advanced capability of civilization, an aptitude to enjoy other than mere

sensual pleasures, which, properly taken advantage of, may be of great use in an attempt to raise their social and mental condition. (Wallace 1857, p. 204)

This shows how he was first coming to appreciate the notion of 'provident' abilities, later alluded to in the 1864 presentation on the evolution of races, and how such capabilities likely arose on the basis of more complex causalities than those inherent in direct and 'unprovident' kinds of adaptive responses to the immediate environment.

[D] In his 1853 book Palm Trees of the Amazon Wallace writes: "The purposes to which the different parts of Palms are applied are very various, the fruit, the leaves, and the stem all having many uses in the different species. Some of them produce valuable articles of export to our own and other countries, but they are of far more value to the natives of the districts where they grow, in many cases furnishing the most important necessaries for existence." (pp. 5-6). Then, on pages 6-9, he gives many examples of how vital palms are to the presence of native peoples. Finally, on page 9 he says: "We have now glanced at a few of the most important uses to which Palms are applied, but in order to be able to appreciate how much the native tribes of the countries where they most abound are dependent on this noble family of plants, and how they take part in some form or other in almost every action of the Indian's life, we must enter into his hut and inquire into the origin and structure of the various articles we shall see around us." Given his earlier appreciation of Chambers's ideas on the perfectibility of humankind, might Wallace have already been considering the final causes-related possibility that palms and bamboo had in some manner been "put there" for the use of humankind, as he increasingly urged later in life?

[E] Costa (2013) has written how Wallace, in his *Species Notebook*, is quite caustic in his criticism of a passage on benevolent design in an encyclopedia article of the time: "...this is the kind and degree of design imputed to the Deity as a proof of his infinite wisdom. Could the lowest savage have a more degrading idea of his God." Costa notes how "far from a personal god, Wallace's creator, insofar as he believes in one, is more deistical in nature, acting through natural laws." (pp. 90-91) Again, on page 93, Costa writes, on the subject of 'useful' structures in birds: "the rub for Wallace – 'how could anyone know what could or could not be done by an omnipotent creator, or what was necessary or not?" I read this sequence as Wallace constructing a *reductio ad absurdum* directed at the very notion of the impossibility of there being a personal, anthropomorphic, god-figure: this being an 'inadequate idea' of the type Spinoza described. Instead, he put his faith in the operation of 'natural laws,' whether these be of a type characterized by immediate causes, or final ones (per 'D' above).

[F] Costa (2013, p. 339) also draws attention to Wallace *Notebook* entries concerning his sensitivity to higher considerations of virtue and aesthetics, and how these distinguish humans from other animals: "Wallace may have relied on and marveled at the technological innovations of his day, but he was aware that they came with a price. This passage [something Wallace quoted] suggests that is the 'higher considerations' of virtue and aesthetic appreciation that truly distinguish humans from the rest of the animals, not merely our technology – a sentiment that very much resonated with him." Again, a

perceived tension between how evolution proceeds through competition at the animal and plant level, and through cooperation at the level of conscious awareness.

[G] I look upon the doctrine of future rewards and punishments as a motive to action to be radically bad, and as bad for savages as for civilized men. I look upon it, above all, as a bad preparation for a future state. I believe that the *only way* to teach and to civilize, whether children or savages, is through the influence of love and sympathy; and the great thing to teach them is to have the most absolute respect for the rights of others, and to accustom them to receive pleasure from the happiness of others. After this education of habit, they should be taught the great laws of the universe and of the human mind, and the precepts of morality must be placed on their only sure foundation – the conviction that they alone can guide mankind to the truest and most widespread happiness. I cannot see that the teaching of all this can be furthered by the dogmas of any religion, and I do not believe that those dogmas really have any effect in advancing morality in one case out of a thousand. (from a 23 September 1865 letter from Wallace to George Rolleston: Wallace 1905, Vol. 2, p. 54)

The date of this emphatic letter is particularly interesting: it was sent during the early part of the year (mid-1865 to mid-1866) Wallace devoted to his initial study of spiritualism (and some weeks before his first exposure to the lectures of Emma Hardinge). It fairly summarizes his thoughts on how people in general – not only 'savages' – should be ethically/morally educated (*i.e.*, 'civilized,' in the active case sense). It represents a logical conclusion to the sequence of thought described earlier in [18]. See also Smith (2023).

[H] Wallace believes spiritualism *complements* natural selection, per these comments in *The Scientific Aspect of the Supernatural*:

"Now here again we have a striking supplement to the doctrines of modern science. The organic world has been carried on to a high state of development, and has been ever kept in harmony with the forces of external nature, by the grand law of 'survival of the fittest' acting upon ever varying organisations. In the spiritual world, the law of the 'progression of the fittest' takes its place, and carries on in unbroken continuity that development of the human mind which has been commenced here" (Wallace 1866a, pp. 49-50)

Note the "takes its place" comment, signifying an overall process in which natural selection operates within its own realm, assuring balance to the degree it can through competitive action, only to be ultimately superseded/supplemented by a mechanism of information exchange encouraging cooperation and provident decision-making existing "beyond space and time." Note also the word 'aspect' in the title of this work: a holdover from Wallace's adoption of this term after his reading of Humboldt's *Aspects of Nature* (Smith 2023).

Counterindications

Over the years some specific comments Wallace made have been taken by various authors to support the conclusion that his post-1868 stance reflects a reversal of position on natural selection – that is, that he *now* believed it was incapable of explaining certain phenomena. I have written on most of these before, so the treatment here will be brief:

[I.] It has sometimes been claimed that the utopian statements ending his paper on the evolution of human races (Wallace 1864a, pp. clxix-clxx) represent a turn for him

toward religious belief. However, these comments of his are apparently more the product of his infatuation at that point with Spencer's writings: in this instance, especially, the latter's thoughts on fairness and social and natural justice. Wallace had adopted these ideals ca. 1854, long before the 1864 paper, or even the Ternate essay. Wallace, also still believing in the *Vestiges* position on the eventual emergence of a godlike humankind, was simply attempting to combine this with Spencerian ideals to project a future utopia based on a materialist view of human evolution. He would soon conclude that conventional materialism was not the way to achieve natural justice – and, as indicated earlier, neither was a conventional religious belief instilled by inculcation.

[II.] In an 18 April 1869 letter (Marchant 1916, p. 200), Wallace responds to Darwin's disappointment over Wallace's new position on human evolution:

I can quite comprehend your feelings with regard to my 'unscientific' opinions as to Man, because a few years back I should myself have looked at them as equally wild and uncalled for. ... My opinions on the subject have been modified solely by the consideration of a series of remarkable phenomena, physical and mental, which I have now had every opportunity of fully testing, and which demonstrate the existence of forces and influences not yet recognised by science. (Marchant 1916, p. 200)

These words have sometimes been used to suggest that Wallace had *now* decided that natural selection was not up to explaining humankind's higher abilities, but they instead seem to me to be a simple expression of a sequence of adoption, not a reversal. Wallace's use of the words 'modified solely' – as opposed to 'reversed', or even 'changed' – is a not-insignificant clue here: he is simply stating the facts of the matter.

[III.] Further, in the Preface to his *Contributions to the Theory of Natural Selection* Wallace writes of his reprinting of the 1864 paper on human races:

Now reprinted with a few important alterations and additions. I had intended to have considerably extended this essay, but on attempting it I found that I should probably weaken the effect without adding much to the argument. I have therefore preferred to leave it as it was first written, with the exception of a few ill-considered passages which never fully expressed my meaning. (Wallace 1870a, p. viii)

I have discussed this passage before (Smith 1992/1999, 2008, 2013/2020); if Wallace really had 'reversed' himself on this matter, why would he have elected to include a paper in the 1870 collection concerning what he now considered an invalid argument? Obviously, its inclusion in the collection meant he still thought it was valid, save the ending passages flavored by his temporary adoption of Spencerian ideals. Costa has written:

...The question of differences in degree versus kind among animals (including humans) was central. He was likely not a strict materialist at this time when it came to the human mind, and as his certainty about this grew in later years he became an outspoken critic of the idea that the human mind could have evolved by purely natural means, first revealing his views publicly in 1869. (Costa 2013, pp. 327)

Costa's comments only make sense with respect to Wallace if the concept of 'materialism' can be restricted to existences defined by an objectively measurable 'spatially-extended' reality – but Wallace believed, like Spinoza, in a 'laws-based' natural reality that possibly incorporated both spatial and aspatial components (see Wallace 1894; Nadler 2020). So,

ultimately, it gets down to whether you insist the primary element of materialism to be spatial extension, or logically objective forms of assessment/measurement based on a more inclusive concept of nature.

Conclusion

In evaluating Wallace's thought, it is important to distinguish between what opinions he actually held – and why he held them – and our tendency to sometimes miss the forest for the trees. In my opinion, Wallace's value has been seriously undermined by overly stereotypic views of the possibly scientistic or hypernaturalistic nature of some of his conclusions. To whit: Wallace was a spiritualist, and since the idea of disembodied spirits must be ridiculous, so too must his reasons for adopting the belief be ridiculous. reducing to a desire to communicate with dead relatives, or listen to disembodied hands play tunes on free-floating accordions. Actually, his reasons for converting had more to do with evolutionary philosophy: that is, he saw the relationship between human mental processes and the 'preternormal' more as a way of evolutionarily overcoming the former's imperfections. In the animal and plant world, natural selection alone could produce changes that were proximally functional, but not ones that led to provident action-taking capacities. Provident action for thinking beings was the objective, because this meant an ability to productively/sustainably manipulate resources in a manner extending beyond the confines of time and space: i.e., in such a fashion that the future of all peoples, and the entire planet, was assured.

It is a bit difficult to understand how so many sources simply endorse the 'reversal' interpretation, if there is not something unseemly going on. In Smith (2021) I recognize at least five major groups of observers who seem to have something of an axe to grind when the subject of Wallace comes up, and it is possible to identify further clusters of discontent if one only takes the time to consider the matter closely. These are not merely investigators who disagree with Wallace's many individual explanations, either; rather, politics often seems to be involved. In the case of the 'change of mind' matter, the main detractors are often conventionally-trained biologists, and I can only take their objections to reflect a sort of idolatry or hero-worship that they feel is threatened by trying to contextualize Wallace's thoughts on subjects like spiritualism and socialism. I am not blind to Wallace's accomplishments as a biologist, but am also not content to let Wallace stand as 'history's greatest bug collector,' and let it go at that. Wallace himself dedicated an equally large portion of his life to the furthering of social change, and we need to understand why, and how he approached the subject.

On this point – and I realize I am repeating myself – it is important to determine what opinions Wallace *actually* held, and, especially, *why* (that is, what kinds of problems he felt he was trying to address) before taking the easy way out and leaping to conclusions. The 'why' part in this is especially important; I have not been dwelling on the 'reversal' subject for so long merely because of a perverse joy in annoying biologists! Instead, it appears to me that Wallace's conclusions on the evolution of the 'higher attributes' still could largely be on target, if not necessarily having identified the correct causal agent. If people's mental states (and society in general) are indeed 'evolving' through *some* mechanism of psychical feedback leading to the selection of more and more 'adequate ideas' (in Spinoza-speak) – as opposed to merely dancing to the tune of the technology

siren – there is no reason to assume that the vehicle for such Wallace identified, spiritualism (or something akin), must be that mechanism. Indeed, one can imagine other possible candidates, ranging in operation from the ultra-conventional (e.g., Darwinism-based concepts) to the ultra-un-conventional (e.g., extraterrestrial psychic influence per the 'arguments' of the Ancient Aliens crew). Recall the selection from Wallace's 1865 letter to George Rolleston given above, and his words: "I believe that the *only way* to teach and to civilize, whether children or savages, is through the influence of love and sympathy; and the great thing to teach them is to have the most absolute respect for the rights of others, and to accustom them to receive pleasure from the happiness of others." This is teaching by example, avoiding inculcation, and perhaps it just hasn't dawned on us yet which in-built form of reflection upon the deficiencies of our previous, imperfect, actions is actually leading us forward.

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