

**FEATURE: Darwin's Less Famous Partner – Alfred Russell Wallace
(Third in SERIES of 6)**

VOICE: Professor, we often call evolution “Darwinism.” But I was reading this week that another man published similar ideas at almost the same time as Darwin.

PROF.: That's right. His name was Alfred Russell Wallace [AL-fred RUS-ul WALL-us]. He agreed with Darwin on some points, but some of his thoughts about evolution were quite different from Darwin's ideas.

FORMAT: THEME AND ANNOUNCEMENT

VOICE: In our previous two episodes we began discussing a book entitled *Letter to an Influential Atheist*. The author addressed it to best-selling atheistic author and former Oxford University professor Dr. Richard Dawkins.

PROF.: Author Roger Steer opens chapter three by referring to another man who originated a theory of evolution by natural selection and published it at nearly the same time as Darwin, Alfred Russell Wallace.

Steer writes to Dawkins, “Although you often link the two men's names, you omit to tell us an important fact of history. That is that while Wallace and Darwin respected each other – and Wallace was one of the pallbearers at Darwin's funeral – the two men *never agreed about the explanatory power of natural selection.*”

VOICE: Do you mean Wallace didn't think evolution could explain as many scientific facts as Darwin thought it could?

PROF.: Right. Wallace was born in 1823 and died at age 90 in 1913. He worked as an architect and teacher in Great Britain before traveling and then working as a naturalist. He collected more than 125,000 specimens – first in the Amazon basin and later in the Indonesian archipelago where the “Wallace Line” between Borneo and the Moluccas Islands was named after him.

Even in his 20s, Wallace was convinced that natural processes were not random. He wrote, “Everywhere, not here and there,¹ but everywhere, and in the smallest operations of nature to which human observation has penetrated, there is purpose and continual guidance and control.”

VOICE: So Wallace thought nature contained “purpose and continual guidance.”

PROF.: Yes, and not just in a few isolated instances. He said purpose and guidance were *everywhere – throughout all of nature*. Wallace thought God was *continually* in control of nature.

¹ “Here and there” is an idiom meaning “in some places but not in others,” scattered randomly with no pattern.

In 1856 Wallace wrote a paper that embraced the idea of a “general design” behind nature. In two nights, he wrote the complete theory in twelve pages.

VOICE: Didn't Darwin take *twenty years* to analyze his findings and arrange his thoughts for publication?

PROF.: Yes, Darwin repeatedly rechecked and revised his ideas, and he wrote a lot more than twelve pages. Perfectionists keep working, never sure that their work is good enough to publish.

Wallace didn't know Darwin was working on the concept of evolution, when he sent Darwin a summary of his ideas in 1858.

VOICE: Is that what motivated Darwin to publish *Origin of Species* in 1859?

PROF.: Yes. Darwin was stunned to read Wallace's ideas and realize they were so similar to his thoughts. Speer writes, “Wallace's work modified and hastened the publication of Darwin's *Origin*. Darwin was at this time 49 and Wallace 35.”

They published their theories jointly in a professional journal in 1858. Darwin's book *Origin of Species* was published the following year.

Wallace became a professional member of the Royal Society, which is the British Academy of Sciences. In addition, the Royal Society awarded him its Royal Medal and Darwinian Medal for his “independent origination of the origin of species by natural selection.”

VOICE: When people invent the same basic idea independently, they sometimes develop a hostile rivalry. Did that happen between Darwin and Wallace?

PROF.: No. Twelve years after publication, Darwin wrote to Wallace, “I hope it is a satisfaction to you to reflect...that we have never felt any jealousy towards each other, though in one sense [we were] rivals.” Darwin told another person, “...[H]e must have a really good, honest and noble disposition. A far higher merit than mere intellect.”

VOICE: On what ideas did Wallace and Darwin *disagree*?

PROF.: Eight years before his death, Wallace listed the matters on which he and Darwin differed. Darwin believed that there was no difference between humanity's nature and animal nature, but Wallace believed that something beyond nature gave humans their intellect and their spiritual nature.

VOICE: So he didn't believe man inherited his mind and his spirit from animals.

PROF.: Right. Steer tells Dawkins, “On the issue of whether evolution has a direction, and if so who directs the process, you're wrong to imply that Wallace was on your atheistic side. ...[H]e fervently believed that evolution

must have been guided at all stages by some form of supernatural direction. He also believed that the same supernatural director prepared the earth for us to enjoy. This was for him the whole purpose of evolution.”

VOICE: So Wallace thought natural selection couldn't do as much as Darwin thought it could.

PROF.: That's right. Wallace thought that there are three stages in evolutionary development that cannot be accounted for by natural selection:
First, the change from inorganic to organic, when the earliest cell, or the living protoplasm out of which it arose, first appeared.
Second, the origin of consciousness.
Third, the fact that man has a number of characteristics that elevate humans above other animals.

VOICE: Please say those three stages again, to make sure I remember correctly the features that Wallace believed natural selection couldn't explain.

PROF.: First, the change from inorganic to organic, when the earliest cell, or the living protoplasm out of which it arose, first appeared.
Second, the origin of consciousness.
Third, the fact that man has a number of characteristics that elevate humans above other animals.

VOICE: Which specific features did he think made man higher than animals?

PROF.: It's a long list. It includes things like the ability to appreciate art and music, the ability to reason mathematically, the development of moral and ethical systems, and the understanding of abstract concepts such as time, eternity and infinity.

VOICE: Intellectual abilities like mathematical reasoning and thinking of abstractions like time, eternity and infinity. Also, the ability to appreciate art, music, morality and ethics.

PROF.: Wallace wrote, “How were all or any of these faculties² first developed, when they could have been of no possible use to man in his early stages of barbarism? How could natural selection, or survival of the fittest in the struggle for existence, at all favor the development of mental powers so entirely removed from the material necessities of savage men...?”

VOICE: In other words, why do we have brains much smarter than our ancestors would have needed to merely survive?

2 Abilities.

PROF.: Wallace believed in a “creative power” and a “directive mind” and criticized those who thought living things were so simple that their origin didn't need explaining. He spoke of the “life-giver” and the “mind-giver”...

VOICE: ...Meaning God the Creator?

PROF.: Yes. He also realized that consciousness cannot be produced by adding more chemicals. He wrote, “...[I]t is impossible for us to believe that the mere addition of one, two, or a thousand other material elements to form a more complex molecule, could in any way tend to produce a self-conscious existence. ...[S]ensation or self-consciousness is infinitely removed from absolutely...unconscious matter.”

VOICE: Dawkins frequently writes that both Darwin and Wallace interpreted evolution in an atheistic way.

PROF.: Steer corrects him, saying, “...You are plainly wrong to couple the two men together in the way you do. Wallace wrote...: ‘...we possess intellectual and moral faculties which...must have had another origin; and for this origin we can only find an adequate cause in the unseen universe of Spirit.’”

VOICE: I read somewhere that Wallace was especially interested in the cell.

PROF.: Yes. He emphasized a cell is not just a particle of protoplasm, but an organized structure. He asked, “organized by what?”

During Wallace's lifetime, the biologist Thomas Huxley [HUX-lee] insisted that life itself was the organizing power. Some botanists used the term ‘vital force.’ The German naturalist Ernst Haeckel [HEK-ul] used to talk about a “cell-soul.”

Wallace insisted that none of these suggestions went to the heart of the problem. Force can cause motion, but it is *not a cause of organization*.

VOICE: That's an interesting observation: Force can make substances move, but it can't organize them. Merely moving objects around, doesn't organize things into a system that functions smoothly.

PROF.: There needs to be something to guide and coordinate the process that builds up a complex living organism. Wallace realized the cell repairs itself. It also multiplies itself, and it adapts itself to its ever-changing environment. To do all this, Wallace believed the cell had to have been made by “a mind far higher, greater, more powerful than any of the fragmentary minds we see around us – a mind not only adequate to direct and regulate all the forces at work in living organisms, but which is itself the *source* of all those forces and energies...”

VOICE: That's a very important point: Force can't produce the intricate organization that we find throughout nature. That seems to fit the Bible's statement that about God, that “It is He who has made us, and not we ourselves.” (Psalm 100:2).

PROF.: We will continue discussing Wallace's insights, next time.

FORMAT: THEME AND ANNOUNCEMENT

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