

Darwin's Point

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Darwin's Point, also known as 'Darwin's Tubercle' or 'Darwin's Bump', is a very small outer ear trait used by Darwin in an attempt to prove evolution. It consists of a slightly pointed thickening of the cartilage on the posterior helix at the junction of the upper and middle thirds of the external ear lobe called the auricle (figure 1).¹ It is often called 'Darwin's Point' because the idea was first published by Charles Darwin in *The Descent of Man* as a vestigial feature that he attempted to use as evidence of our common ancestry from primates including baboons and macaques that have a point on the apex of their ears (figure 2).²

In his 1871 book on human evolution, Darwin wrote about "a little blunt point, projecting from the inwardly folded margin, or helix" which is the outer ridge of the ear lobe.³ Darwin invested a full page and a half on this topic, as well as one of the few illustrations in the 1879 edition of his book.⁴ He commented that some readers might conclude that this "trifling" trait is not worth our notice,

but responded to this claim with: "Every character, however slight, must be the result of some definite cause", adding that the trait was produced by "... the extreme margin of the ear folded inwards In many monkeys, which do not stand high in the order, as baboons and some species of macacus, the upper portion of the ear is slightly pointed, and ... if the margin were to be thus folded, a slight point would necessarily project inwards [towards the centre] ... and we may safely conclude that it is a ... vestige of formerly pointed ears—which occasionally reappears in man."⁵

Darwin claimed he learned about it from the 'celebrated sculptor' Thomas Woolner who first described the small disturbance on the ear auricle, and even depicted it in one of his sculptures.^{3,6} Woolner also claimed in his correspondence to Darwin that a 6-month-old human fetus ear often has a Darwin's Point and also resembles that of a monkey, a claim that is untrue.⁷ Woolner theorized that this small protuberance was an atavistic throwback linking humans and primates to their common ancestor. It is sometimes called the Darwin-Woolner Point for this reason. Millard and Pickard even concluded that the trait should be named 'Woolner's Tubercle' instead of Darwin's Point.⁸ It is of interest

that Woolner painted a well-known portrait of Darwin, indicating their close personal relationship.

Considered an important evidence of evolution

This Darwin's Point feature is considered so important by some evolutionists today that *New Scientist's* list of the top five human vestiges has it as number three.⁹ Robbie Gonzalez lists it as number six on his list "10 vestigial traits you didn't know you had".¹⁰ Another website titled "All you need is biology" lists it as second in importance to prove Darwinism.¹¹ An anonymous blogger, a former young earth creationist and now an atheist, on his website "Leaving Christianity and embracing skepticism" wrote: "Darwin's tubercle demonstrates our common ancestry with other primates, which have significantly more prominent pointed ears, possibly to help funnel sound into the auditory canal." He added:

"It's both startling and fascinating to realize that I carry tangible, visible evidence for evolution with me wherever I go. And by no means is this connection to the past something to be ashamed of. On the contrary, to bear such tokens of our history just serves as a reminder of how far our species has come."¹²

Illinois State University anthropologist Martin Nickels presented Darwin's Tubercle among his "Twelve lines of evidence for the evolution of humans & other primates".¹³ Last, Rubicondior on "The blog religious frauds tell lies about" wrote:

"I'm not one to boast, but I have primitive ears. I have the sort of ears of which my remote ancestors might have been proud ... I have Darwin's Tubercles and I can wiggle my ears without wrinkling my forehead. Both these things are vestigial fossils of my remote ancestry."¹⁴



Figure 1. Comparison of a human ear and a macaque ear showing 'Darwin's Point'



Figure 2. An alleged orangutan fetus featuring a pointed ear (from Darwin,¹⁶ figure 3)

In spite of these many confident statements about the validity of Darwin's Point, as early as 1871 German Professor Ludwig Meyer published his doubts about this interpretation for reasons that included its great variability of size, shape, and location in humans, which precludes Darwin's claims.¹⁵

Major problems with the theory

One major problem is that our putative closest ancestors, the chimps and most other higher apes, lack a pointed ear as well as a Darwin's Point. The rare primates with a pointed ear include macaques and yellow baboons. The literature lacks either descriptions or images that document a chimp ear with a trait like Darwin's Tubercle. Neither do gorillas, orangutans, gibbons, nor dwarf chimps called bonobos have pointed ears. Darwin's crude drawing¹⁶ shows an alleged orangutan foetus featuring a pointed ear very unlike that of adult apes, a claim that is not supported by photographs of an orangutan foetus.¹⁷ Darwin considered this an example of evolutionary ontogenetic recapitulation.

A major problem for the atavistic theory is that the Darwin's Point trait is influenced less by genetics, or not at all, than it is by early developmental contingencies in the womb. Professor McDonald concluded that "family and twin studies strongly indicate that Darwin's Tubercle is not determined

by a single gene with two alleles, and there may be very little genetic influence on the trait."¹⁸ One German study of 58 pairs of identical twins found 26 pairs (45%) in which one twin possessed a Darwin's Tubercle on one or both ears, and the other twin totally lacked the trait.¹⁹ For this reason, McDonald stresses that one "should not use Darwin's Tubercle to demonstrate basic genetics."¹⁸ The trait can be bilateral, present on both ear auricles, or asymmetrical, present on one ear only.

Another major problem identifying the trait is that it varies so greatly in both size and shape that it is difficult to divide ear auricles into the two categories, with or without Darwin's Tubercle. It varies from a very prominent bump to close to a small unmeasurable enlargement. Sometimes it can be large enough to cause social problems, such as its peers mockingly calling the child with the trait Pixie ear, Spock ear, or Vulcan ear. In such cases, it is often easily cosmetically removed.²⁰ Darwin also noticed the size problem, saying that the tubercle is variable in size and also somewhat in position.^{3,21}

Darwin's Point can also protrude toward the auditory canal, away from it, or even in the middle of these two extremes.¹ Its presence also varies widely in the world's population. For example, in the few small studies completed it has been confirmed to exist in only about 10.5% of the Spanish adult population, 40% of Indian adults, and 58% of Swedish school children.²² Much larger studies in different populations are required to make any definite conclusions regarding its presence in various populations. As a whole, on average it exists in about 10% of the human population, a rate that depends greatly on the specific size and position criteria used to define it.

Another reason for its significance is that in both criminology and modern human evolution theory the presence of Darwin's Point has historically

been associated with criminality as part of the atavistic theory of crime causation.²³ This theory, called anthropological criminology, essentially taught that the tendency to commit crimes was inherited, and someone who is 'born criminal' could often be identified by physical (congenital) defects. These claimed primitive physical traits, such as Darwin's Point, are part of the now disproved theory that a person is an 'atavistic criminal, 'a throwback' to a more savage stage of human evolution.²⁴

The exact developmental factors producing Darwin's Point during the ear's embryogenesis are unknown but it is believed to form as a result of unequal turning inward of the helix in the foetus. In other words, it is a harmless congenital quirk that results from a slight malformation caused by ear folding occurring during early development. If this conclusion is correct, environmental contingencies, not genetics, would play a central role in the formation of Darwin's Point.²⁵ This despite the fact that a Darwin's Tubercle was once speculated to be due to an incompletely penetrant autosomal dominant because those who possess the alleged allele often do not have the trait. Thus, little evidence exists for the genetic view.²⁶ If genetics plays little or no role in its formation, Darwin's Point could not be either a vestigial organ or an atavism.

Summary

Darwin's Point could not be either a vestigial structure or an atavism because, although all biological traits are influenced in some way by genetics, the environment and other non-genetic factors are critically important for its existence and specific physical form. Furthermore, Darwin's Point identification is problematic because it is so variable in size and location that it could be located in almost any position on the general area where Darwin identified it, even

if it was barely identifiable on the ear auricle helix.

The only reason it was proposed to be some kind of ‘genetic throwback’ was due to the evolutionary assumption that humans evolved from some type of primate.²⁷ A big problem right up front is that very few primate kinds have a decisive point on the upper part of their ear. To support the Darwinian proposal of its origin requires at a minimum genetic evidence consistent with the notion. The only plausible explanation for Darwin’s Point is that it is caused by a harmless congenital/developmental quirk. This view is supported by the finding that it is a relatively rare trait and that the few studies done so far have failed to provide genetic evidence consistent with the Darwinian explanation.

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