The Exchange over Monogenesis:
Where Matters Stand

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So, after Fr. Chaberek's three critiques of my 2011 article on monogenesis and two replies from me, it is time to bring this exchange to a close. Where do matters stand?

I wrote that article because many Catholics, having accepted the evolutionary origin of the human body, had then wondered whether that acceptance required them to reject theological monogenism.[1] The thesis of my article, and of my recent defenses of it against Fr. Chaberek's critiques in *Forum Philosophicum* (2024, 2025a), was that "scientific arguments for biological polygenism would not, no matter how strong they might be, require any revision of the Church doctrine of theological monogenism" (2025a, 300).

In defense of that thesis (i.e., as a consistency proof), I presented a *possible* scenario of anthropogenesis according to which the first fully human beings were the product of God's infusion of a created rational soul into two individuals in a larger population of evolved, "merely biologically human," beings (and then into all of their descendants). Interbreeding between those fully human beings and the merely biologically human members of the larger population would explain the genetic facts on the basis of which some scientists (saliently, Ayala and Escalante 1996) had argued for a polygenetic anthropogenesis. Or, to put the thesis in other words, "[that] scenario being scientifically possible and theologically orthodox, any scientific arguments over polygenism are theologically irrelevant" (Kemp 2024, 393).

1. I.e., that there were exactly two first human beings, the ancestors of all other human beings who ever lived.

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Construction of that consistency proof seemed to me to be in the spirit of St. Augustine's admonitions about how Catholics should respond to science-based challenges to Catholic doctrine.

It was against that article (and its subsequent defenses) that Fr. Chaberek wrote his three critiques (2024, 2025, 2026). His account of what I was trying to do in the 2011 article (allegedly "[to] reconcile the so-called 'science of evolution' [i.e., scientific materialism] with Catholic belief" [2026, 90]), however, is incorrect. I certainly was not trying to effect a reconciliation of any kind of *materialism* with Catholic belief.[2] How could he think that, when I was so explicit about infusion of a divinely created human *soul* as a necessary component of anthropogenesis? His characterization of what I was trying to do depends on his mistaken *identification* of the science of evolution with scientific materialism. But surely when St. John Paul II said that the theory of evolution is "more than a hypothesis" (1996b, para. 4) he did not mean that *scientific materialism* was "more than a hypothesis." Also mistaken is even Chaberek's more limited claim about what evolution must include—"no evolutionist (including Darwin himself) would ever allow that evolution was incapable of producing 'true' humans, that is, people like ourselves" (2026, 90). Alfred Russel Wallace did:

> The brain of prehistoric and of savage man seems to me to prove the existence of some power, distinct from that which has guided the development of the lower animals through their ever-varying forms of being. (1870, 343)

Was he not an evolutionist? Many Catholic scientists and theologians have accepted the evolutionary origin of the human body without thinking that evolution by itself produced true human beings.[3]

2. It is perhaps this confusion that led Chaberek to think that I was committing an equivocation when I was in fact making a distinction to resolve an alleged contradiction (2026, p. 90). Let me make that logical difference more explicit.

One commits an equivocation when one presents two ideas as in fact consistent (or equivalent) despite the fact that they use a key common term in two different senses. He thinks I do this due to his misunderstanding my goal as that of reconciling Catholic theology with a comprehensively naturalist evolutionistic anthropogenesis.

One can use a distinction to resolve a contradiction by showing that two ideas use a *term* they share to refer to two different *things*, and therefore do not attribute contradictory predicates to the same subject. This is what I in fact do for the ideas at issue (the conclusion of scientific arguments for polygenesis and the Catholic theological doctrine of monogenesis) when I show that the properly scientific theses included in the theory of evolution are about the origins of biologically human beings; the theological doctrine, by contrast, is about the origin of a subset, namely, fully human beings.

3. Details are provided in my *Origin of Catholic Evolutionism* (2025b).

The differences between Fr. Chaberek and me can be summarized by reference to five theses which he asserts and I deny:

1. The evolutionary origin of the human body is contrary to Catholic doctrine.
2. Theories of evolution are beyond the reach of science.
3. The science-based arguments for polygenism are too weak to justify attempts at their reconciliation with theological doctrine.
4. The merely biologically human beings included as a necessary feature of my scenario, while not theologically problematic, are metaphysically and scientifically impossible.
5. My justification for developing my scenario misrepresents St. Augustine's advice about how to respond to differences between science and theology.

Evolution and Catholic Doctrine

Our first disagreement is about the theological acceptability of an evolutionary account of the origin of the first human body.

It was not the point of my 2011 article to offer a defense of such an account *per se*, but only to show that recent arguments for polygenism, and in particular those based on trans-species polymorphisms in man and chimpanzee (e.g. Ayala and Escalante 1996; Ayala 1998), did not constitute a basis for rejecting *theological* monogenism. Nevertheless, since Chaberek used his critiques of my article to present a larger attack on the theological orthodoxy of an even partially evolutionary anthropogenesis, the orthodoxy of the background presupposed by my scenario became a point of difference in our exchange.

Chaberek's concerns about that theological orthodoxy are not, it is important to note, about any of the distinctive features of my scenario—not about the existence of merely biologically human beings (2026, p. 96)[4] or about the occurrence of interbreeding—but rather about the fact that, allegedly contrary to definitive Catholic doctrine, it allowed evolution to play any role at all in the origin of the first human body.

In his defense of his theological anti-evolutionism, he exaggerates the doctrinal status of the passages on which he relies and minimizes the status of those which show explicit magisterial openness to the possibility of evolutionary processes playing a role in the formation of the first human body.

4. In the passage he cited (2025, 299), what I had meant was that he thinks animal ancestors are contrary to Church teaching, but he took it differently.

A case of the former is his appeal to a profession of faith which Pope Pelagius sent to King Childebert in 557. Childebert had asked Pelagius to affirm the *Tome* of St. Leo, or at least "to set forth [his] own confession of faith in [his] own words." Pelagius did both. The relevance of that confession to what is at issue here is that Pelagius, having said the resurrection of the dead would apply to "everyone born and dead from Adam to the consummation of the world," then made explicit that this applied also to Adam and Eve as well, even though "they were not born of other parents, but created, one from earth and the other from the rib of the man" (*Epistle* 15, 410B). While Chaberek is correct that Pelagius' statement is inconsistent with an even partially evolutionary anthropogenesis, it is incorrect to characterize it, as he did, as a "solemn profession of faith pronounced officially to the universal Church" (2026, 99)—something which, on the issue under discussion here, it certainly is not.

If this non-evolutionist account of anthropogenesis were infallible teaching, one wonders how St. John Paul could have said that "[his] predecessor Pius XII had already stated that there was no opposition between evolution and the doctrine of the faith about man" (1996b). Chaberek reads Pius XII differently. Pius, he says, "did not 'call into question' or 'abandon . . .' the traditional belief (i.e., the belief in the direct creation of man according to his body . . .)," but merely "gave implicit permission to have debates in the Church regarding this important matter." Why would he have done that? Chaberek quotes a passage from the encyclical: "Catholic theologians and philosophers, whose grave duty it is to defend natural and supernatural truth . . ., cannot afford to ignore or neglect these more or less erroneous opinions" (2026, 96, quoting Pius XII at 1950, para. 9). That is misleading in two ways.

First, the referent of paragraph 9's "these erroneous opinions" is the philosophical points mentioned in paragraphs 5–8 (e.g., pantheism), not the very different scientific ideas (the ones at issue here) that come only much later, in paragraphs 36–37, as an inattentive reader of Chaberek's article might imagine.

Second, while it is fair to say that Pius did not simply abandon direct divine formation of the human body, to say that he did not call it into question could easily be misunderstood. He quite explicitly opened the question of the origin of the first human body for theological discussion, which is sufficient to make my point.

Pelagius' confession merely stated his best sixth-century judgment on a matter tangential to his main point. His reference to Adam was phrased in a way that was safest at the time, given the absence of any evidence to

the contrary (i.e., evidence suggesting that Genesis might reasonably be read less literalistically than had traditionally been done), and was made in the context of an attempt to resolve other theological controversies; it addressed evolution only by implication and only incidentally.

That it, or at least something like it, was also sent to the universal church is suggested elsewhere (Pelagius *Epistle* 6), but is not certain.

In light of evidence not available to Pelagius, St. John Paul offered different guidance in a Wednesday catechesis: "It can be said that, from the viewpoint of the doctrine of the faith, there are no difficulties in explaining the origin of man in regard to the body, by means of the theory of evolution" ([1986] 1996a). Neither his catechesis nor Pelagius' letter, on the point at issue, is *de fide tenenda*; each is based on the best exegesis of its day. John Paul's catechesis, one might also note, was intended (as Pelagius' was not) to address precisely the point at issue here.

Chaberek's reply? "I do not know what the Pope intended to say"! Then, "it does not follow that faith could not provide an alternative explanation that would trump the evolutionary one in terms of the power of belief" (2026, 98). Well, that's *partly* true, but it bears an uncanny resemblance to what Urban VIII said to Galileo in his unfortunate reluctance to recognize that good arguments for or against heliocentrism could resolve that earlier controversy: "It must suffice for us to say that angels could be moving the celestial bodies" (Galileo [1624] 1903, 183). While it is true that Chaberek's rejection of evolutionary anthropogenesis is better grounded in traditional theology than were Urban's reservations about the motion of the Earth, in the end neither he nor Urban has a trump card here. "Faith" can always provide an explanation alternative to a scientific one in the sense that God can always do directly what He has also given nature the capacity to do, but to trump the evolutionary explanation the faith to which appeal is made would have to be faith in something more definitive than any teaching that Chaberek has available. Merely traditional doctrine will not do, for reasons that I have already articulated (2025a, 300).

Chaberek's question, "if the Pope simply wanted to say that the evolutionary explanation of the human body is the true one, and that belief in the direct creation of the human body should be abandoned, then why he didn't say so?" (2026, 98), has an easy answer: compatibility (or not) of scientific ideas with Catholic doctrine is within the competence of the magisterium; their *truth* (presuming compatibility), by contrast, is not.

Another statement on the theological acceptability of a partially evolutionary anthropogenesis, again one of authority at least comparable to that of a letter to a king, St. John Paul's address to the Pontifical Academy

of Sciences, Chaberek leaves aside, because "it does not introduce anything new and has no bearing on our debate." St. John Paul thought otherwise:

> Taking into account the state of scientific research at the time as well as of the requirements of theology, the encyclical *Humani Generis* considered the doctrine of "evolutionism" a serious hypothesis, worthy of investigation and in-depth study equal to that of the opposing hypothesis. . . . Today, almost half a century after the publication of the encyclical, *new knowledge has led to the recognition* of the theory of evolution as more than a hypothesis. (1996b, para. 4, with emphasis added)

Of course, if an even partially evolutionary anthropogenesis is unorthodox, then my scenario would be so as well, but recent magisterial statements with at least as much authority as Pelagius' letter once had assure us that the evolutionary origin of the human body is not theologically objectionable.

Evolution and Science

Fr. Chaberek and I disagree about how science works and, consequently, about what it can achieve. We agree with St. Augustine's idea that the kind of natural knowledge at issue here is grounded in *ratio et experientia*.

Chaberek, I think, fails to appreciate the extent to which *ratio* (here, scientific inference) can take us beyond mere observation and measurement to the acceptance of sufficiently powerful explanations (e.g., the heliocentric structure of the solar system, the atomic nature of matter, the historical origins of things) (see McMullin 1992). Such reasoning, though it does not provide *mathematical* certainty, can provide a certainty sufficient to require that it be taken into consideration in the interpretation of Scripture, as well as in the retention or revision of merely traditional (i.e., not *explicitly* revealed) doctrines. It can meet, that is to say, St. Augustine's requirement of *certissimitudo* in the context of mixed questions to which both science and theology are relevant.

Chaberek seems to limit science to ideas "that can be measured, observed or tested in the laboratory," though exactly what that means becomes unclear in light of his acceptance of the motion of the Earth and the age of the Universe.

In response to my saying that our judgment that the Earth moves around the Sun is inferential and only indirectly observational, he accuses me of sophistry, implying that we would then have to say the same about our knowledge that we have two hands (2026, 88). We do see our two hands directly, but when did we (from where *could* we) make a similar observation

about the Earth revolving around the Sun? We correctly *conclude* that it does, but only on the basis of *other* observations (e.g., retrograde motion of the superior planets) from which we *infer* that we are overtaking them as we move along an inside circumsolar orbit.

Does the observation of variation in relative star positions (stellar parallax), recognized in principle as an implication of the motion of the Earth already in the sixteenth century though finally detected only in the 1830s (e.g., Bessel 1838), count as a *test* of heliocentrism? It does, of course, but paleontological discoveries that fill gaps in the fossil record (e.g., the discovery of Tiktaalik; see Daeschler, Shubin and Jenkins 2006; Shubin 2009, 3–27) do so for the theory of the evolutionary origin of species as well.

Chaberek does not tell us why he thinks that the Universe is very old. It cannot be because of observation or testing in a laboratory. The reason for thinking, contrary to a once widely held theological belief, that the Universe is very old is that it is the best explanation of observations (of other things) that we can make—on the basis, that is to say, of the very kind of argument that he refuses to accept, in principle, for the evolutionary origin of species.

So, I think that science can often provide information about the past with a reasonable degree of certainty and that, when it *seems* to do so in a way that might be deployed against Catholic doctrine, it is the responsibility of Catholic intellectuals to show how the ideas in question can be reconciled. Chaberek, by contrast, thinks that although science can tell us that the universe is very old, it can tell us nothing (nothing about evolution, anyway) about the past itself (2026, 87).

Science, Polygenism, and Theological Notice

The case for biological (not theological) polygenesis on which I relied (Ayala and Escalante 1996)[5] is based on the observation (and explanation) of trans-species polymorphisms (distinct nucleotide *strings* at a single gene locus). Chaberek dismisses Ayala's argument, despite its having been accepted for publication in *Nature*, with only the remark that it had been "challenged by other scholars" (2024, 157). It was, however, taken seriously enough to warrant Ayala's invitation to address the American bishops on the topic (Ayala 1998). That seemed to make it a reasonable focus for my work. In addition, as I went on to point out, denying that Ayala's arguments

5. This argument is different from the arguments from an intraspecific human genetic diversity against which he deploys his scientific objections (2026, 89). The latter has, to be sure, been used by *other* Catholics discussing this question (e.g., Austriaco et al. 2016, 226–27). My consistency proof covers both lines of scientific argument.

are in fact scientifically sound does not affect my thesis that even if it, or similar, arguments *were* sound they would not constitute a challenge to theological monogenesis (2024, 292).

METAPHYSICS, BIOLOGY, AND MERELY BIOLOGICAL HUMAN BEINGS

My scenario includes (indeed requires) a distinction between the beings discussed in scientific arguments (biologically human beings) and those to which theological doctrine pertains (theologically human beings).[6] The latter is a subset of the former, meaning that some beings might be biologically, but not theologically, hence "merely biologically," human. Such beings would have all the animal powers that we have, but not the rational powers. They would have, that is to say, the animal souls that are produced in whatever way other animal souls are produced, but not the rational souls that can only be the product of individual divine acts of creation.

Whether there could be any merely biologically human beings of the kind my scenario requires is another point of difference between Chaberek and me. Chaberek says that he has raised no *theological* objection to the possible existence of such beings (2026, 96). He says, however, that the idea faces two other kinds of problem.

The first is philosophical—the idea that there could be such beings amounts to Cartesian dualism (2026, 93–94).[7] He thinks that there must be a one-to-one correspondence between kinds of bodies and kinds of souls. The possibility of a body like ours being informed either by a merely animal soul or by a rational soul is, however, plausible once one realizes that rationality is not a power of any bodily organ. A substantial form (a soul) could make possible all the sensory, appetitive and locomotive powers associated with human being without being able to abstract concepts as well. Another kind of substantial form (or soul) could actualize all those powers and, *in addition*, bestow the power of reason. Either would be a possible substantial form of the same kind of material body. The scenario is no more dualist than is the Catholic doctrine that the human body is informed by a *subsistent* form, or than the Thomistic idea that the rational soul is not the power of any bodily organ.

Chaberek's philosophical critique of the possibility of merely biologically human beings is, therefore, unsound.

6. On Chaberek's charge of equivocation here, see note 2 above.

7. In this, he is incorrect. What makes Cartesian anthropology dualist is its thesis that man's material body and his spiritual soul are distinct *substances*. On my account, the rational soul is *not* a separate substance but only the substantial form of the human body (2011, 235; 2020, 145–46). It is, therefore, in complete conformity with the doctrine taught by the Council of Vienne.

Chaberek also thinks that, for two reasons, these beings are biologically impossible. That is the next point of difference between us.

First, he claims that, philosophically problematic or not, such merely biologically human beings would lack the features necessary to their survival as a species. He never explains why such beings would be any worse off than baboons and vervet monkeys, species that do survive in a world full of leopards, eagles, and snakes. I listed some of the specific behavioral features that we share with those baboons and monkeys—sociability, resilience in the face of environmental variation, and complex communication patterns (2025a, 298). To his denial that those count as specifics,[8] he added that "all we know about nature tells us that animals survive thanks to their bodily structure" (2026, 93). I cannot imagine why he thinks that an animal species' behavior is irrelevant to its prospects for survival, but I tried to accommodate his concern by pointing to two bodily features conducive to survival that are unique to man—fists and throwing arms (2025a, 298). He objects that fists "would not count for anything against horse's hooves [?—KWK] or lions' claws" (2026, 92), forgetting that lions' claws would not do anything to protect against a stone thrown at 30 meters. Merely biologically human beings would not be invulnerable, but they would hardly be "defenseless relative to predators."

Second, Chaberek argues that "there are many features pertaining to the human body that . . . —in a way—imply or require the human (i.e., rational) soul" (2026, 93)[9]—manual dexterity, for example, a "harmony in the senses," and bipedalism, but his argument does not show that this is so. None of these features establish what he claims.

The fact that "the power of reason can use the entire potential of [such dexterity] in the creation of all kinds of things" does not show that it would be of *no* use to non-rational beings.

The connection between a harmony in the senses and rationality is grounded in his claim that although the alternative, "predominance of one sense over others," "makes instinct[ual] operations more effective, [it] . . . would ruin the ability to think properly." That harmony is necessary for "experiences coming from the body [to] serve as 'material' for human thinking." He gives no reason to think that effective instinctual operations (and certainly not animal life itself) require such predominance, nor that

8. If he wants more specificity, he can begin with Cheney and Seyfarth (1990).

9. His point here is that for merely biological human beings to count as being even biologically human, they would have had to have features that he thinks are incompatible with the absence of rationality.

it would make thinking impossible. Neither does he say why predominance and harmony cannot be matters of degree. Not having been given any reason to do otherwise, I doubt all of that; the burden of proof here is on him.

Finally, does at least bipedalism imply rationality? He cites here a popular science magazine (Wayman 2012) as saying: "Humans are 27% less energetically effective compared to mammals of similar size . . . . In nature that would spell imminent death" (2026, 94). That is not quite correct. His source, and its scholarly source (Halsey and White 2012), say this only of running, walking being more efficient (as Chaberek acknowledges in his more careful review of the popular article; see Chaberek and Carleial 2022), even if running is less so. His argument that "that would spell imminent death" presupposes that running away from fast predators is more important than any other function of locomotion and than any benefits that might accrue from other uses to which forelimbs can be put. A review of the scientific literature (e.g., Lewin 1998, 215–28; Niemitz 2010) reveals a number of other functions of locomotion (e.g., foraging over large areas, wading), and other possible benefits of bipedalism. Those functions and benefits, which might well outweigh the risks of some members of the species being eaten by fast predators, do not require rationality.

Following St. Augustine

The difference between Chaberek and me on this final point centers on the criterion of *certissimitudo*. What counts as "very certain," or, to focus on what is at issue here, when is a scientific idea *sufficiently certain* to allow open discussion (if not reconsideration) of theological doctrines?

We agree that no degree of scientific confidence in an idea inconsistent with doctrines *de fide tenenda* would permit such reconsideration, or even (*I* think) make it reasonable to give official approval to open discussion.

We apparently agree that theological doctrine must at least sometimes require modification in light of scientific research, since he says that what Catholics should believe in theological matters "might require some modification in understanding if it clashed with hard facts" (2024, 164; 2025, 274).

I think we disagree about how to apply this—that he is insufficiently appreciative of the force of scientific reasoning and overly deferential towards what are in fact merely traditional theological beliefs. The point that seems to remain at issue is the level of certainty sufficient to justify raising questions about traditional doctrines that are not *de fide tenenda*. I showed (2025a, 300) that serious, evidence-based and widely held scientific ideas sufficed for Pius XII.

We in any case disagree on how all this applies to the origin of the human race, but what science can do, and the theological note of certainty about the origin of the human body, I discussed above.

I think that I have followed St. Augustine's advice about what to do when critics are able to prove from reliable evidence that some fact of physical science is contrary to our Scripture—by showing that it is not (*De Genesi*, 1.21.41).

The evolutionary origin of the human body was officially recognized as a theologically open question in a papal encyclical published over seventy years ago. Chaberek denies that the *distinctive* feature of my scenario, the possible existence of merely biologically human beings, is *theologically* problematic. So, my deployment of the scenario as a consistency proof is not, despite Chaberek's protests to the contrary, a revision of doctrine *de fide tenenda* on the basis of insufficiently grounded scientific claims. Indeed it is not anything "contrary to Scripture, that is to Catholic faith."

Conclusion

So, that's where the controversy sits. At this point, I think, the verdict can be left to the judgment of readers.

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