

YEA, YEA  NAY, NAY

ASSESSING THE LOGICAL STRUCTURE OF DNA ARGUMENTS AGAINST THE BOOK OF MORMON

By Blake T. Ostler

EDITOR'S NOTE: *This is the first installment of a two-part essay in which LDS philosopher and theologian Blake T. Ostler employs the tools of logic and formal argumentation to assess recent claims against Book of Mormon historicity.*

IN HIS SUMMARIES of studies about the DNA of aboriginal populations in the Americas, Thomas W. Murphy argues that these findings challenge the belief that the Book of Mormon is what it claims to be—an ancient text written by inhabitants in America covering a timeframe of about 2000 B.C. to about 421 A.D.¹ Murphy's claims about the relevance of DNA studies for evaluating the Book of Mormon have received moderate notoriety even outside LDS circles and have generated a variety of responses from Book of Mormon defenders.

Because of my training in law and philosophy, whenever I encounter an argument, I assess it by translating it into its logical form. This exercise allows me to focus on an argument's ability to show what it claims. Since much in the recent discussions center on just what DNA studies can show, it is important to make explicit both the form and premises of the arguments so we can assess the truth claims made or assumed in them. In this essay, I concentrate on the premises and logical structures of the two main arguments Murphy advances regarding DNA and the Book of Mormon. I believe it will be evident that DNA studies have little or no bearing on the question of Book of Mormon historicity.

THE DEDUCTIVE DNA ARGUMENT AGAINST THE BOOK OF MORMON

MURPHY'S initial claim is that DNA evi-

dence shows that the Book of Mormon's antiquity is virtually "impossible." In an interview with Living Hope Ministries, Murphy states:

We, as Mormons, were mistaken about who American Indians are and where they came from. We have based our beliefs upon the Book of Mormon, which we thought was an accurate ancient historical record. The genetic evidence has pretty conclusively shown that that is not possibly the case.

Well, with all these problems, I think to be honest, we have to admit them. We have to stop pretending that they're not there. We need to stop looking for plausible reasons that the evidence doesn't exist, and I think we need to acknowledge a nineteenth-century origin of the Book of Mormon. That is, we can, I think, admit that Joseph Smith produced the Book of Mormon in the nineteenth century, and I, as a Mormon scholar, am not afraid to say that.

I think the most difficult problem with a nineteenth-century view of the Book of Mormon is that we have to confront not just the possibility, but the almost inevitability, that Joseph Smith was attempting to deceive people—at least at certain periods of time. When he pretended to have actual plates, for example. It is pretty clear he was being deceptive at that time.²

Murphy makes several assertions in this small excerpt that are simply irresponsible. However, I am more interested in the structure and logic of Murphy's arguments when he claims that "the genetic evidence has pretty conclusively shown that [the view that the Book of Mormon is an ancient historical record] is not possibly the case."³ What kind of argument could support such a strong claim?

I have perused the arguments of Murphy and those who follow him in claiming DNA evidence challenges the assertion that the Book of Mormon is what it claims to be. In so doing, I have found that those who employ DNA evidence in this manner are vague about the logical form that their argument takes. Indeed, I do not see any evidence that those using a DNA argument against Book of Mormon antiquity are even aware of the form their argument takes. However, this is fairly easy to reconstruct. The deductive argument against the Book of Mormon is:

- P1. The Book of Mormon claims that all aboriginal inhabitants of ancient America are of Hebrew descent.
- P2. DNA studies show that all inhabitants of ancient America are of Asiatic, not Hebrew, descent.
- P3. DNA studies are accurate.
- P4. P1 cannot be true, given P2 and P3.
- C1. Therefore, the Book of Mormon claim stated in premise P1 is false.

This argument has a valid deductive form. That is, if the Book of Mormon asserts that all inhabitants of the Americas are of Hebrew descent, and if DNA evidence reliably shows that this is not true, then it follows that one of the premises must be false. In asserting this, Murphy and those who follow his lead are, of course, banking on people trusting DNA evidence more than they trust the Book of Mormon itself with respect to claims about the inhabitants of ancient America. Understand that Murphy does not *assert* this argument; rather, it is *presupposed* in the claim that the genetic evidence shows the Book of Mormon cannot possibly be ancient and therefore Joseph Smith was a fraud. Murphy has accepted each of the premises of the argument and arrived at the conclusion C1.

Even if an argument has a valid deductive structure, this does not mean the argument is sound. Such is the case here. This argument



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does not succeed as a disproof of the Book of Mormon's claim about the inhabitants of Ancient America for two reasons.

First, premise P2 is not an accurate statement of what DNA evidence can show. What is true is actually P2*: *Amerindian DNA is consistent with an Asiatic ancestry, and there is no persuasive evidence to support Hebrew ancestry.*⁴ But P2 is a very different assertion from P2*, for P2* is simply a statement of the *lack of evidence* of Hebrew ancestry, not an assertion that there is conclusive evidence Amerindians *do not* have Hebrew ancestors. This distinction is crucial. Once P2 is replaced with P2*, the argument is no longer valid. Thus, the deductive DNA argument against the Book of Mormon cannot succeed as disproof of Hebrew ancestry for Amerindians and is, at most, a statement for a lack of evidence.

There is another reason that this deductive argument cannot succeed: premise P1 is false. Any person who believes that the Book of Mormon is what it claims to be will also take seriously what the Book of Mormon itself claims with respect to its geography. For those who have taken the time to actually map out and look at the distances involved in the Book of Mormon, the assertion that the Book of Mormon claims to be a history of all inhabitants of ancient America is absurd on its face. And even if the writers of the Book of Mormon made such a claim, clearly those involved in the record keeping (assuming these to be historical persons) could not possibly have known from their epistemic position that their assertion was true. They simply did not have the extensive geographical knowledge necessary to make such a claim. I see no persuasive evidence that the Book of Mormon claims that all Amerindians are of Hebrew descent, and, as I will discuss in detail in Part II of this essay (to be published in the next SUNSTONE issue), there are rather clear indications that the Book of Mormon claims the contrary.

THE INDUCTIVE DNA ARGUMENT AGAINST THE BOOK OF MORMON

AFTER asserting that DNA evidence shows it is impossible that any inhabitants of the ancient Americas are of Hebrew descent, Murphy then claims that DNA evidence shows the Book of Mormon to be "implausible."⁵ A claim is deemed "implausible" if it is not probable given the evidence.

In making his assertion, Murphy speaks of "parsimonious" claims about the text, meaning that he believes his claim that the Book of Mormon was written by Joseph

Smith is the simplest explanation given the evidence regarding its origins. This claim is meaningless, for Murphy has not dealt with all of the relevant evidence to be in a position to make such an assessment. For example, he hasn't dealt with any of the evidence showing that the author(s) of the Book of Mormon was (were) acquainted with Hebrew literary forms such as the prophetic call or Hebrew ritual forms such as the covenant renewal festival or Israelite judicial procedures and substantive law.⁶ Such features of the book require an explanation, but someone who uses DNA evidence as primary support for his or her view that Joseph Smith is the book's



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author fails to address all of the relevant evidence and is therefore not in a position to make claims about which explanation is most "parsimonious."

The claim that the Book of Mormon's having been translated from an ancient text is "implausible" amounts to asserting that it is not just "not probable" but actually *improbable*, given the evidence. In other words, it is based on an inductive argument. However, as I will show, if it is based solely upon genetic evidence, this inductive argument doesn't have a chance of success.

As with the deductive argument, Murphy never presents his inductive argument in a logical form; and indeed, he never presents his argument as a conclusion based on steps of reasoning or inductive proof. Rather, he merely assumes that DNA evidence of Asiatic origin and lack of evidence of Hebrew origin is evidence against the claims that the Book of Mormon makes for itself. Nevertheless, based on his claims that DNA evidence shows an Israelite origin for Amerindians is "implausible," it is fairly clear what logical form his argument must take:

M1. "There is no genetic evidence to support the view that the

ancient inhabitants of the Americas were of Semitic descent."⁷

- M2. If there had been peoples of Semitic descent in the ancient Americas, then it is highly probable that genetic evidence showing such Semitic descent would appear among the DNA samplings that have been collected so far.
- M3. Therefore, it is highly improbable that there were any people of Semitic descent in ancient America.

This argument has a valid inductive form. However, it fails as a proof, for premise M2 is not known to be true. Moreover, we simply don't have sufficient grasp of the evidence to know how we could know M2 to be true. That is, we don't know what the probability is that if peoples of Semitic descent were in ancient America we would find genetic markers of that descent among the DNA samples collected to date. Yet that is the crucial question that must be answered to determine whether premise M2 of this inductive argument is true. Moreover, we don't know what kind of evidence it would take to be able to make the assertion contained in premise M2. Without knowing the probability that if there had been descendants of Lehi and Nephi in ancient America we would find markers of Semitic descent among populations from whom DNA has been collected, we have no epistemological basis for assessing the strength of the probabilities asserted in the argument. Murphy's implied claim about probability cannot be quantified and is therefore vacuous.

Without knowing whether it is probable or improbable that today we would find Semitic genetic markers among DNA samples if there had been ancient Americans of Semitic descent, we cannot know if we should expect to find any. That is the crucial point. The inductive argument derives its force from the assumption that if the Book of Mormon peoples were a Semitic population, we should expect today to find Semitic DNA. But we don't know that we should have that expectation. The argument assumes that we should expect Semitic DNA evidence, but for the argument to have any real persuasive power, it must prove that point and not assume it.

I want to make clear that while Murphy and others employing DNA arguments rather plainly assert premise M1 and conclude M3, they have not expressly asserted premise M2.

Further, it is rather clear why they avoid asserting or analyzing premise M2. It is because M2 shows that their argument is stranded on a premise that makes an undefended, and at this point indefensible, assertion about probability. On the other hand, if they feel that asserting M1 is all that is necessary to prove their case (as Murphy seems to do in his assertion that “anthropologists” have long ago disproven the historical claims of the Book of Mormon),⁸ then they simply fail to make the distinction between evidence *against* a proposition and the lack of evidence *for* it.

FOR the foregoing reasons, I do not believe arguments from DNA are enlightening with respect to the historicity of the Book of Mormon. They are enlightening with respect to whether *all* of the peoples who inhabited the ancient Americas were *solely* of Semitic descent. Clearly, they were not. However, I can see no reason that the person who believes the Book of Mormon to be what it claims is obligated, upon pain of lack of integrity or epistemic accuracy, to believe that the Book of Mormon cannot be true unless all inhabitants of ancient America are exclusively descended from Semitic ancestry.

Nothing can be proven from an invalid argument. Recognizing that DNA arguments against the Book of Mormon are both invalid and unsound demonstrates that those who rely on DNA evidence to discredit the Book of Mormon are claiming more than they can know.

I believe one of the main reasons DNA arguments against the Book of Mormon have made headlines, despite their clear lack of logical soundness, is the informal link in many people’s minds between the issue of Amerindian origins and *what they have been taught* the Book of Mormon says about ancient American peoples. That is, when confronted with DNA evidence that doesn’t track with what they’ve been taught about the inhabitants of Ancient America, many people confuse the issue of “that’s not what I’ve been taught” with the question of “what the Book of Mormon actually says about its peoples.”

Part II of this essay deals directly with this confusion, clarifying distinctions that will show the importance of weighing DNA and other studies against what the Book of Mormon actually says about itself instead of against naive views of what it says, even if those views have been taught by Church leaders. The Book of Mormon must be tested by what it says for itself and not by what others may believe about it. ☞

NOTES

1. Thomas W. Murphy, “Lamanite Genesis, Genealogy, and Genetics,” in Dan Vogel and Brent Lee Metcalfe, eds., *American Apocrypha: Essays on the Book of Mormon* (Salt Lake City: Signature Books, 2002), 47–77. In my view, Murphy is disingenuous in his arguments. In “Inventing Galileo,” *SUNSTONE*, March 2004, 58–62, Murphy denies that he had argued that the Book of Mormon is disproven by DNA evidence. However, when he responded to a charge by Daniel Peterson that he has attempted “to show that the Book of Mormon cannot be reconciled with the findings of contemporary biology,” Murphy responds, “To the contrary, I believe that we can reconcile the biological evidence with the Book of Mormon by approaching the scripture as nineteenth century pseudopigrapha. . . .” *Ibid.*, 59. Such a response is disingenuous. Surely Murphy was aware that Peterson was arguing that Murphy maintains the biological evidence is irreconcilable with the claim that the Book of Mormon is a true ancient story of Nephites. Murphy’s suggestion that Peterson has misrepresented his position is misleading. Moreover, he claims that “DNA is not a ‘Galileo event’” because “the anthropological community” had “already rejected the idea that American Indians originated in Israel” more than a century ago. However, this assertion is sloppy logic for the simple reason that *rejection* of a view is not a *disproof* of a view.

2. Video interview with Thomas Murphy, hosted at www.mormonchallenge.com. This partial transcript is taken from the clip entitled, “Dealing with Evidence.”

3. *Ibid.* See also Thomas Murphy, “Simply Implausible: DNA and the Mesoamerican Setting for the Book of Mormon,” *Dialogue: A Journal of Mormon Thought* 36, no. 4 (Winter 2003): 109–31; Murphy, “Inventing Galileo,” 60. It seems to me that Murphy has attempted to dodge criticisms of his view by masking it as something that it is not. For example, he states that BYU geneticist Michael Whiting “misrepresents” his view when Whiting asserts that Murphy claims “modern DNA science has conclusively proven the Book of Mormon false and that Joseph Smith is a fraud.” In response, Murphy maintains that:

To the contrary, I believe that infallible humans interpret DNA evidence, and such interpretations are inevitably affected by cultural assumptions and preformed expectations. It would be an abuse of science to contend that one has conclusively proven anything. Thus, I have maintained that the nineteenth-century origin of the Book of Mormon is the most parsimonious explanation of existing scientific and historical data. The scripture, though, may be historical fiction and still contain inspired spiritual truths emanating from a prophet of God. (58)

Yet that is not what Murphy claimed in the Living Hope Ministries video, and Whiting has not misrepresented his statements. It is Murphy who is attempting to dodge a valid criticism by pretending that he never stated what he rather clearly did state. Murphy was not as careful in his statements to Living Hope Ministries as he has attempted to be in later articles. In making a claim about which view of the Book of Mormon is most parsimonious, Murphy is making a claim about probability. However, such a claim is inconsistent with his later, more decisive as-

sertions that “there is no genetic evidence to support the Book of Mormon, and most of us do not expect any to be forthcoming.” *Ibid.*, 60.

4. See Trent D. Stevens, “Now What?” *SUNSTONE*, March 2004, 26–29; Michael F. Whiting, “DNA and the Book of Mormon: A Phylogenetic Perspective,” *Journal of Book of Mormon Studies* 12, no. 1 (2003): 24–35; D. Jeffrey Meldrum and Trent D. Stephens, “Who Are the Children of Lehi,” *Journal of Book of Mormon Studies* 12, no. 1 (2003): 38–51; David A. McLellan, “Detecting Lehi’s Genetic Signature: Possible or Not?” *FARMS Review* 15, no. 2 (2003): 35–90; Dean H. Leavitt, Jonathan C. Marshall, and Keith A. Crandall, “The Search for the Seed of Lehi: How Defining Alternative Models Helps in the Interpretation of Genetic Data,” *Dialogue: A Journal of Mormon Thought* 36, no. 4 (Winter 2003): 133–50.

5. Murphy, “Simply Implausible.”

6. A good overview of these and many other matters Murphy would have to account for before being qualified to claim what is parsimonious with regard to the Book of Mormon is my article, “The Book of Mormon as a Modern Expansion of an Ancient Source,” *Dialogue: A Journal of Mormon Thought* 20, no. 1 (Spring 1987): 66–123. On a Hebrew covenant renewal festival in the book of Mosiah, see Terrence L. Szink and John W. Welch, “King Benjamin’s Speech in the Context of Ancient Israelite Festivals,” in John W. Welch and Stephen D. Ricks, *King Benjamin’s Speech* (Provo: FARMS, 1998), 147–224; Stephen D. Ricks, “Kingship, Coronation and Covenant in Mosiah 1–6,” *Ibid.*, 233–76; Stephen D. Ricks, “The Treaty/Covenant Pattern in King Benjamin’s Speech,” *BYU Studies* 24, no. 2 (1984): 151–62; Hugh Nibley, *An Approach to the Book of Mormon* (Salt Lake City: Deseret Book, 1957), 295–310; John A. Tvedtnes, “King Benjamin’s Speech: A Classic Ancient Farewell Address,” and “Coronation of Kings,” in *Reexploring the Book of Mormon*, John W. Welch, ed., (Salt Lake City: Deseret Book and FARMS, 1992), 114–26; and Gordon C. Thomasson, “Mosiah: The Symbolic Complex of Kingship in the Book of Mormon,” *Journal of Book of Mormon Studies* 2, no. 1 (1993), 21–38. For the various prophetic lawsuit forms in the Book of Mormon, see my “Book of Mormon as a Modern Expansion of an Ancient Source,” 93–98; John W. Welch, “Benjamin’s Speech as a Prophetic Lawsuit,” in *King Benjamin’s Speech*, 225–32; Richard R. McGuire, “Prophetic Lawsuits in the Hebrew Bible and the Book of Mormon,” *Preliminary Report* (Provo: FARMS, 1982). For the form-critical aspects of Lehi’s vision as a prophetic call, see Blake T. Ostler, “The Throne-Theophany and Prophetic Commission in 1 Nephi: A Form-Critical Analysis,” *BYU Studies* 26, no. 4 (Fall 1986): 67–87; Stephen D. Ricks, “Heavenly Visions and Prophetic Calls in Isaiah 6, the Book of Mormon and the Revelation of John,” in Donald W. Parry and John W. Welch, eds., *Isaiah in the Book of Mormon* (Provo: FARMS, 1998), 171–190; John W. Welch, “The Calling of a Prophet,” *The Book of Mormon: First Nephi, the Doctrinal Foundation*, Monte S. Nyman and Charles D. Tate Jr., eds. (Provo: Religious Studies Center, 1988), 35–54; and John W. Welch, “The Calling of Lehi as a Prophet in the World of Jerusalem,” in *Glimpses of Lehi’s Jerusalem*, John W. Welch, David Rolph Seely, Jo Ann H. Seely, eds. (Provo: FARMS, 2004), 421–448.

7. Murphy, “Inventing Galileo,” 60.

8. *Ibid.*, 59. See also my note 1.