Complexity, Consistency, Ignorance, and Probabilities

CHAPTER 7

COMPLEXITY, CONSISTENCY, IGNORANCE, AND PROBABILITIES
Melvin J. Thorne

Hugh Nibley has correctly observed that the Book of Mormon describes Nephite civilization "with due attention to all the complex factors that make up an exceedingly complicated but perfectly consistent picture."[1] He has argued persuasively that one strong evidence of the authenticity of the Book of Mormon is that it interweaves dozens of complex stories and patterns with an uncanny consistency that is never caught in a slip or contradiction.[2]

That is one expression of a cluster of arguments for the authenticity of the Book of Mormon as an ancient document: there are features of the Book of Mormon that make it so complex that it is simply not credible that Joseph Smith could be the author of the book in any normal sense. It is too complex to have been written by Joseph in the manner and in the amount of time described by witnesses.[3] Indeed, it is too complex to have been written by Joseph in the manner

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hypothesized by his enemies or critics.[4] Ultimately, it appears to be too complex to have been written by Joseph or any of his contemporaries in the early nineteenth century under any conceivable set of circumstances other than the one Joseph describes—the translation by miraculous means of an authentically ancient document.

Internal Complexity and Consistency

Nibley was neither the first nor the last to argue that the book's complexity supports its authenticity,[5] but no one has argued the point as thoroughly or as clearly. Nibley's argument related to the complexity of the book is based on internal historical detail. He points out that "one of the best-established disciplines in the world is the critical examination of written texts to detect what in them is spurious and what is genuine."[6] Drawing on what he sees as one of the main rules of this discipline, put forth by Frederich Blass, Nibley argues that no forger who creates a pretended historical document about some period before his or her own time can have the knowledge and diligence necessary to present a large quantity of historical data in a long document without running into contradictions. Thus:

> The test of an historical document lies, as we have said, not in the story it tells, but in the casual details that only an eyewitness can have seen. It is in such incidental and inconspicuous details that the Book of Mormon shines. Blass, then, notes that when these details occur in considerable numbers (as they certainly do in the Book of Mormon), we can confidently assume a genuine test; and, above all, when the large numbers of details fit together and prove each other, we have the strongest proof of all, for difficulties increase not mathematically with the length of a document, but geometrically. . . . Only one

who attempts to make a full outline of Book of Mormon history can begin to appreciate its immense complexity; and never once does the author get lost . . . never once does he contradict himself.[7]

The Book of Mormon deals with hundreds of individual characters, at least three dating systems, three migrations from the Old World to the New, and a number of subgroups and splinter groups, all without contradiction. It presents complex geographical data that is internally consistent, so that places are always in the same relationship with each other.[8] The book itself is structurally complex; for example, there are complicated sets of prefaces and summaries before and after a large number of significant sections, in which the editor gives the reader a forecast of what is coming and then summarizes what has been read. It is unlikely that an uneducated farm boy could, while dictating, keep in mind what he had promised in the prefaces and then remember to close off the sections with summaries. This intricate structure is much more compatible with the claims in the Book of Mormon itself that the record was made by ancient writers working with written materials over long periods of time.[9] In addition to this structural complexity, the Book of Mormon presents detailed sets of religious doctrines that are expressed in a variety of historical settings, sometimes with different emphases and different terminology but with remarkable consistency.[10]

"In its complexity and length lies the key to the problem of the book," according to Nibley's argument, because, according to Blass's rules, "*no* man on earth can falsify a history of any length without contradicting himself."[11] Therefore, this complexity and consistency argues strongly that the book is not a forgery but an authentic ancient record written by eyewitnesses to the events it describes.

Complexity Consistent with External Details

Nibley's argument related to the complexity of the book is based on internal, primarily historical, detail. But the Book of Mormon is complex in other ways as well. It describes a wide variety of external features of the ancient world that can be verified from other sources. Nibley referred to these features as external evidence, and proposed three conditions that such evidence must meet:

> 1. The Book of Mormon must make clear and specific statements about certain concrete, objective things.
>
> 2. Other sources, ancient and modern, must make equally clear and objective statements about the same things, agreeing substantially with what the Book of Mormon says about them.
>
> 3. There must be clear proof that there has been no collusion between the two reports, i.e., that Joseph Smith could not possibly have had knowledge of the source by which this account is being "controlled" or of any other source that could give him the information contained in the Book of Mormon.[12]

Some of the chapters in the present volume provide very good examples of this external evidence. A portion of the argument made by John Sorenson is a particularly clear example (see chapter 15). Sorenson suggests that most of the recent work done on the geography of the Book of Mormon shows that a limited area in Mesoamerica is the most likely location for the events described in the Book of Mormon as taking place in the promised land. It appears that Joseph Smith could have known next to nothing about that area, for the reasons that Sorenson gives. Yet the information found in the book describes features of that area of the Western Hemisphere with amazing accuracy. Furthermore, Joseph himself seems to have believed, at least in the early years

after the publication of the Book of Mormon, that the events recorded in the Nephite account covered all of North and South America, which leaves us with the anomaly that the book he is supposed by critics to have authored "knows" more about the world than he did himself.

Chapter 14 in this book contains another discussion of geography that provides similar external evidence. Noel B. Reynolds shows us that the Book of Mormon's description of the route traveled by Lehi and his family and especially the description of a land that could be called "Bountiful" fit quite well what we have only recently learned about the Arabian peninsula. In the early 1800s, however, people in the West knew very little about Arabia. They generally regarded the area as a vast wasteland. Thus, in addition to the strong possibility, yet to be confirmed, that the actual site of Old World Bountiful may have been discovered, the existence of *any* site likely unknown to Joseph Smith and his contemporaries that matches so well the description given by Nephi of a spot of land that could be "called Bountiful, because of its much fruit and also wild honey" (1 Nephi 17:5) argues strongly that the book was written by ancient people who personally knew of the site.

Many chapters of the Book of Mormon deal with warfare, yet the warfare there described is unlike anything that Joseph Smith and his contemporaries would have known. As William J. Hamblin points out in chapter 16, the patterns of warfare described in the text are authentically ancient with regard to such things as weapons and technology, tactics, logistics, seasonality, agriculture, the laws and customs governing conflict, the relationship between war and religion, and the importance of war to the elite class of society.[13] And the differences between aspects of war in the Book of Mormon and what we read about in the Bible match the differences between warfare in Mesoamerica and the Near

East. Warfare in the Book of Mormon is no simple matter, and its complexities reflect aspects of the ancient world, especially ancient Mesoamerica, that Joseph Smith would have had little or no information about.

The first six chapters of the book of Mosiah contain the farewell address of one king, Benjamin, and the succession in the kingship of Benjamin's son Mosiah. Stephen D. Ricks has pointed out striking parallels between the information in Mosiah and the traditions of ancient Israelite culture surrounding kings.[14] The significance of the office, the nature of the coronation ceremony, and the associated covenants reflect in considerable detail the Israelite customs and beliefs that we now know are part of the process of choosing and placing a new king on the throne.

Mosiah 9:9 in the Book of Mormon lists barley among several crops that were cultivated by the Nephites, and Alma 11:7 singles out barley as the primary grain into which silver and gold were converted in the Nephite system of weights and measures. Yet scientists of Joseph Smith's day did not know of any examples of domesticated barley in the pre-Columbian Americas. It was not until the 1980s that the first direct evidence of cultivated barley in the ancient New World was discovered. The December 1983 issue of the popular magazine *Science 83* reported that professional archaeologists discovered in Arizona what appears to be pre-Columbian domesticated barley.[15]

In addition to the support these and many other examples of external evidence give individually to the proposition that Joseph Smith was not the author of the Book of Mormon, in the aggregate they increase our appreciation for the complexity of the book, and they increase the improbability that Joseph could have created it. If it is unlikely that Joseph Smith could have known of any one of the external aspects of the ancient world discussed in these examples, it

is even more unlikely that he could have known of all of them.

Hidden Complexity Rediscovered

Another and even more intriguing type of complexity that also argues against authorship by Joseph Smith is found in the Book of Mormon—what might be called hidden complexity. The internal complexities discussed by Nibley are fairly obvious to anyone who looks closely at the Book of Mormon, as are the external aspects of the ancient world described forthrightly by the book. Not so obvious, even to the careful student, are complex aspects of the book of which we have become aware only indirectly, as the result of modern scholarship on the history, culture, and literature of the ancient world.

These hidden complexities are usually discovered in the Book of Mormon only after having been found elsewhere. That is, modern research turns up some facet of the ancient world that was previously unknown or unappreciated by Western minds. Thereafter, LDS scholars who become aware of this turn to the Book of Mormon, and using the knowledge and tools that result from the previous research, are able to discover that it is also found in the Book of Mormon record, showing the book to be more complex than previously realized. Furthermore, there is no evidence that Joseph Smith knew of the existence of this facet of the ancient world, and it is very unlikely, perhaps impossible, that he *could* have known of it. Since it is unlikely or impossible that Joseph knew of it, its presence in the Book of Mormon argues for some other means of creation than Joseph's authorship.[16]

Excellent examples of this kind of hidden complexity are found in the ancient literary forms recently discovered in

the book. One of the earliest noticed was chiasmus, which consists of arranging a series of words or ideas in a particular order and then completing the stylistic unit by repeating the series in reverse order. John W. Welch, who first discovered the use of chiasmus in the Book of Mormon, has described the uses and beauty of this ancient literary form,[17] and he gives us an update on its value as evidence for the Book of Mormon in chapter 8 of this volume.

A great number of other literary forms uncommon or unknown in English but prominent in biblical and other ancient texts have been found in the Book of Mormon, some with such interesting names (given by literary scholars) as amoebaeon, anabasis, antenantiosis, catabasis, difrasismo, epibole, epistrophe, exergasia, inclusio, merismus, paradiastole, polysyndeton, and prosapodosis, to mention but a small sample.[18] Is it possible that Joseph Smith could have unconsciously imitated a literary form found in the Bible that was not recognized in his day as what it was even by scholars or, in some cases, was recognized only by scholars? Of course it is possible, but it is unlikely. As unlikely as it is that he might unconsciously imitate one such form, it is even more unlikely, exponentially so, that he could have in this fashion imitated such a large number of these forms in hundreds of examples.

Contemporary research in the field of demography alerts us to another way in which the Book of Mormon is more complex and more true to the ancient world than we could have known previously. In chapter 10, James E. Smith draws on research done by himself and others at the Cambridge Group for the History of Population and Social Structure (in which he is a senior research associate) that has significantly refined our understanding of the ways in which ancient populations have grown or declined.[19] He argues that, while we must be cautious about drawing conclusions based on

the scanty information provided on the size of Nephite population in the Book of Mormon (which is not intended to be a census, after all, and does not therefore directly provide demographic information), what we can glean about this topic proves to be compatible with current understandings of how ancient populations changed over time. Indeed, there are some strong parallels between what we can learn from the Book of Mormon by applying principles of demographics and what has been learned about biblical populations.

The language of the Book of Mormon is also complex in ways that are not immediately apparent to the reader. John A. Tvedtnes and others have drawn on their studies of Hebrew language forms to show that the English text of the Book of Mormon was influenced by Hebrew, of which Joseph Smith had no knowledge at the time the book was published.[20] This influence can perhaps be seen most easily in places where the English expression is awkward and unexpected, yet makes good sense when seen as a quite literal translation from Hebrew or a Hebrew-like language. For example, in Hebrew a possessive pronoun is added to the end of the noun it modifies, whereas in English the possessive pronoun typically comes before the noun. Thus, *my book*, the expression in English, would literally read in Hebrew *the book of me*. This Hebraic usage is reflected in several Book of Mormon passages, such as "the nations of the Gentiles shall be great in *the eyes of me*, saith God" (2 Nephi 10:8). Another example can be found in subordinate clauses, which biblical Hebrew begins with a preposition and a word that translates as *that*. Such a use of *that* in English is awkward and rare, yet it appears frequently in the English translation of the Book of Mormon (another evidence of Hebrew influence) in phrases such as "because that they are redeemed from the fall" (2 Nephi 2:26) and "because that my heart is broken" (2 Nephi 4:32).

Complexity, Ignorance, and Probabilities

All of these complexities (whether internal, external, or "hidden") count as evidence for the authenticity of the Book of Mormon because of the assumption of Joseph Smith's inexperience or ignorance. Arguments based on these complexities assume that Joseph Smith did not know enough to have been able to produce the complexities. The weight of some of these evidences also depends on the accuracy of the witnesses' description of the process of translation (see Richard L. Bushman's discussion of that process in chapter 2)—specifically the time and other resources that were available to Joseph Smith in translating the book or the manner in which he worked. Other complexities would be extremely difficult to account for, no matter how much time Joseph might have had or what resources he could have consulted, given the nature of secular knowledge on the subject at that time. That difficulty increases as the number of instances of the argument increase. That is, we are dealing with probabilities. Each example shows that it is improbable that Joseph Smith could have created the book. As examples multiply, the possibility that Joseph Smith merely got lucky repeatedly or that he had access to nonsupernatural sources of knowledge on a wide variety of topics of which we are unaware becomes increasingly unlikely, to the point of being incredible.[21]

Can these probabilities based on the complexity of the document ever conclusively prove the Book of Mormon to be authentically ancient? That is really a question about the nature of scholarly evidence, which calls for an answer much longer and more involved than can be attempted here. But the short answer is that this type of evidence can prove the book authentic only so far as available evidence can authenticate any ancient document, which means only to a degree

of probability. But clearly the weight of evidence is on the side of the explanation given by Joseph Smith.[22]

Whether the focus is on internal historical detail, geography, language, literature, demography, climate, politics, law, customs, manner of worship, or any other aspect of the ancient world, the result is the same—it is unlikely that Joseph Smith or anyone who might have helped him could have kept all the internal and external details straight, and extremely unlikely that they could have known about these complex features of the ancient world that the book contains but that are only now being revealed by scholarly research. There must be some other explanation for the presence of these elements. The best candidate so far—the one that best accounts for the consistency and for the presence of information likely unknown or even unknowable by anyone who could have played a part in a nineteenth-century creation of the Book of Mormon—is the explanation given by Joseph Smith and other witnesses: the translation of an ancient record by the gift and power of God.

Notes

1. Hugh W. Nibley, "The Book of Mormon: True or False?" *Millennial Star* 124 (November 1962): 276; reprinted in *The Prophetic Book of Mormon* (Salt Lake City: Deseret Book and FARMS, 1989), 225.

2. Nibley considers this question in several of his writings. See in particular "The Book of Mormon: True or False?" in *The Prophetic Book of Mormon*, 219–42; and "New Approaches to Book of Mormon Study," in *The Prophetic Book of Mormon*, 54–126.

3. See the discussion by Richard L. Bushman in chapter 2 of this book.

4. See the discussion by Louis C. Midgley in chapter 5 of this book.

5. For early examples of this approach that are less fully de-

veloped than Nibley's but are nonetheless interesting, see B. H. Roberts, *New Witnesses for God* (Salt Lake City: Deseret News, 1909), especially volume 3, in which Roberts argues that the complexity of the structure of the Book of Mormon is in harmony with its ancient origins (161); John Henry Evans, "Side Lights on the Book of Mormon," *Relief Society Magazine* 19 (January and April, 1932): 97–101 and 218–22, who argues that a modern writer would not have created so complex a narrative; and Jesse N. Washburn, *The Contents, Structure, and Authorship of the Book of Mormon* (Salt Lake City: Bookcraft, 1954), who titles ten of his fifty-one chapters "Complexity and Consistency"; see also Francis W. Kirkham, "Why the Book of Mormon? Revealed Reasons for the Coming Forth of the Book of Mormon," *Millenial Star* 111 (June 1949): 168–9, 188–9; and Helen Hinckley Jones, "A Writer Looks at the Book of Mormon," *Improvement Era* (November 1960): 798–801, 834–5.

    6. Nibley, "New Approaches," 55.

    7. Ibid., 58.

    8. See John Clark, "A Key for Evaluating Nephite Geographies," *Review of Books on the Book of Mormon* 1 (1989): 20–70; and John L. Sorenson, *The Geography of Book of Mormon Events: A Source Book* (Provo, Ut.: FARMS, 1990).

    9. See John A. Tvedtnes, "Colophons in the Book of Mormon," in *Rediscovering the Book of Mormon*, ed. John L. Sorenson and Melvin J. Thorne (Salt Lake City: Deseret Book and FARMS, 1991), 32–7; and Thomas W. Mackay, "Mormon as Editor: A Study in Colophons, Headers, and Source Indicators," *Journal of Book of Mormon Studies* 2/2 (1993): 90–109.

    10. See, for example, Noel B. Reynolds, "The Gospel of Jesus Christ as Taught by the Nephite Prophets," *BYU Studies* 31 (summer 1991): 31–50.

    11. Nibley, "New Approaches," 67, and "The Book of Mormon: True or False?" 225.

    12. Nibley, "New Approaches," 69–70.

    13. See also Hamblin, "Warfare in the Book of Mormon," in *Rediscovering the Book of Mormon*, 241–8; and John L. Sorenson,

"Seasons of War, Seasons of Peace in the Book of Mormon," in *Rediscovering the Book of Mormon*, 249–55.

14. See Stephen D. Ricks, "King, Coronation, and Covenant in Mosiah 1–6," in *Rediscovering the Book of Mormon*, 209–19.

15. For a report of this discovery, see "Barley in Ancient America," in *Reexploring the Book of Mormon*, ed. John W. Welch (Salt Lake City: Deseret Book and FARMS, 1992), 130–2. While this crop is still not attested in Mesoamerica, the probable location for Book of Mormon scenes, the North American examples and the recentness of their discovery are interesting.

16. Interestingly enough, many examples of arguments for the authenticity of the Book of Mormon based on such complexities are items that at first appeared to be evidences against the book, because they seemed so fantastic in Joseph's day. For example, an early criticism of the book, still repeated today, was that it described the Savior's birth as taking place in the land of Jerusalem. Alma 7:10 reads: "And behold, he [Jesus] shall be born of Mary, at Jerusalem, which is the land of our forefathers." Even though Latter-day Saints do not interpret this passage to mean that Jesus was born in the city of Jerusalem rather than in Bethlehem, still critics cite this as evidence of false prophecy or error in the Book of Mormon. But research in the twentieth century has revealed that the Book of Mormon usage is in keeping with an ancient Near Eastern pattern. See Daniel C. Peterson, Matthew Roper, and William J. Hamblin, "On Alma 7:10 and the Birthplace of Jesus Christ" (Provo, Utah: FARMS, 1995) for an excellent review of this issue.

17. See in particular Welch, "Chiasmus in the Book of Mormon," in *Chiasmus in Antiquity: Structures, Analyses, Exegesis*, ed. John W. Welch (Hildesheim: Gerstenberg, 1981); and Welch, "A Masterpiece: Alma 36," in *Rediscovering the Book of Mormon*, 114–31.

18. For more information on these and many other literary forms found both in biblical texts and in the Book of Mormon, see Donald W. Parry's discussion in chapter 11; the introduction to Donald W. Parry, *The Book of Mormon Text Reformatted according to Parallelistic Patterns* (Provo, Ut.: FARMS, 1992); several chapters in John W. Welch, ed., *Reexploring the Book of Mormon*; and Angela

Crowell, "Hebrew Poetry in the Book of Mormon," *Zarahemla Record* 32 & 33 (1986): 2–9; and 34 (1986): 7–12.

19. See also Smith, "Nephi's Descendants? Historical Demography and the Book of Mormon," *Review of Books on the Book of Mormon* 6/1 (1994): 255–96, which deals with many of the same issues.

20. A good introduction to this topic can be found in John A. Tvedtnes, "The Hebrew Background of the Book of Mormon," in *Rediscovering the Book of Mormon*, 77–91.

21. Since our understanding of the past is still fragmentary, and we are dependent on evidence and records that have been only partially and often accidentally preserved, we can never regain a complete and unerring picture of ancient societies. We also cannot know when or whether new evidence or new interpretations of existing evidence may appear. It is possible, therefore, that new evidence will force us to conclude that an example of these supports for the book fails—that some feature now thought to exist in the Book of Mormon is not really there because we misread the text, or that it doesn't really match what is contained in other records in the way we thought, or that some feature that is in the book was known or could have been known by Joseph Smith to exist in the ancient world, or even that some feature is so much a part of the human condition that Joseph could have inserted it into his own writing without any conscious knowledge of its character or import. It is possible—but the more evidence that is obtained on all of these issues, the more unlikely it becomes that any one feature and especially all of them in the aggregate are mistaken. The failure of any one argument based on these kinds of complexities would merely mean that our understanding of what the book contains needs some revision in that area. But there are far too many successful examples of such arguments for the probabilities to turn in favor of modern authorship of the book.

22. I believe that the Lord does not intend the Book of Mormon to be provable intellectually, and I think that most scholars who work in this field would agree. While any confirmation for

authenticity produced by research is welcome, for most LDS schol-ars it is a side benefit. These scholars assume that the book is what it says it is, and the purpose of their research is not primarily to support that assumption but to gain greater understanding of the meaning and nature of the book. While the scholarly evidence for the authenticity of the book is also valuable to the honest inquirer, it functions chiefly as an invitation to take the book seriously and to seek primary, personal evidence—the witness of the Spirit.