

A Solution to the Duration Problem of Daniel 12:11–12

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ABSTRACT

The last few verses of the Hebrew Book of Daniel are famously difficult. Among other issues, they present a duration problem that has long seemed intractable. But they also contain a key that provides a solution to the problem. That key is signaled by the lack of parallelism between the Aramaic expression of Daniel 7:25b and the Hebrew expression of Daniel 12:7b. The solution it allows is both accessible and expected. In his closing verses, the author of the book of Daniel created a mechanism to convey his view of the proper cultic calendar. That view places him securely among the other writers of early Jewish apocalypse literature and among the authors of much of the sectarian and non-sectarian literature of the last three centuries BCE. This paper reviews the duration problem and its elements. It also examines and discusses the prior attempts to solve the problem. It then presents and discusses a solution that was made available in the author's text but has not been previously recognized.

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Publication History

Received 2nd August, 2023
Accepted 14th September, 2023
Published online: 28th September, 2023

Keywords: *Apocalypse, The Book of Daniel, Calendar Controversy, Zadokite Calendar*

INTRODUCTION

The duration problem of Daniel 12 is well known. Two successive verses, 12:11 and 12:12, provide two different measures of time. Both have been understood to refer to the duration of the desecration of the Second Temple under the edicts of Antiochus IV. Neither of those two duration measures can be confidently associated with any known combination of historical dates or events, however. To compound the problem, those two measures of duration have been understood to be associated with a third, found in Daniel 8:14, which apparently refers to the same period. Scholars and commentators from Jerome in the fourth century, who cites the earlier Porphyry; to Driver, Charles, and Montgomery in the early twentieth century; to Di Lella, Collins, Van Goudoever, Boccaccini, Mathews, and others; have struggled with this problem. Ideas have been proposed, but efforts to prove them have been frustrated.¹ Collins' conclusion that the solution might be "yet another of the mysteries that was only revealed in symbolic code,"² suggests that, in his view, the effort at solution had not been advanced appreciably since Jerome wrote that the explanation "rests in the knowledge of God."³

¹ Di Lella points to two surveys of the attempts made historically to explain the problem: J. Linder. *Commentarius in Librum Daniel. Cursus Scripturae Sacrae* 23. (Paris: Lethieaux, 1939); and C. Schedl. *Mystische Arithmetik oder geschichtliche Zahlen* (Dan., 8,14; 12, 11-13). *BZ* 8 (1964): 101-105. See Louis F. Hartman and Alexander A. Di Lella, *The Book of Daniel, AB 23*, (New York: Doubleday, 1977), 314.

² John J. Collins, *Daniel: With an Introduction to Apocalyptic Literature*, FOTL 20, (Grand Rapids: Eerdmans, 1984), Kindle Edition, Loc 1796.

³ Gleason L. Archer, *Jerome's Commentary on Daniel*, (Eugene, OR: Wipf & Stock, 2009), 151. (Previously: Grand Rapids, MI: Baker, 1958)

These are the three “duration verses” that create the difficulty:

“For two thousand and three hundred evenings and mornings; then the sanctuary shall be restored to its rightful state.”⁴ (Dan 8:14)

The measure in 8:14 has been understood to mean, or to be the equivalent of, one thousand one hundred and fifty days.⁵

The duration verses in Chapter 12 are:

“From the time that the regular burnt offering is taken away and the abomination that desolates is set up, there shall be one thousand two hundred and ninety days. Happy are those who persevere and attain the thousand three hundred and thirty-five days.” (Dan 12:11-12)

No explanation for the difference between the two durations found in Daniel 12:11–12 has yet found broad acceptance.

Some Prior Approaches to the Problem

The language of Daniel Chapter 8 is specific in its descriptions of both the beginning of the defined period and its end. The beginning of the time of desolation is specified in 8:11, “It took the regular burnt offering away from him and overthrew the place of his sanctuary.” That is understood to refer to the suspension of the twice-daily offerings in the temple. And 8:14 describes the end, “For two thousand three hundred evenings and mornings; then the sanctuary shall be restored to its rightful state.” There has been little to argue about except whether it is correct to interpret “two thousand and three hundred evenings and mornings” to mean 1,150 days. Michael Segal and Shlomo Wadler have recently proposed that the expression “two thousand three hundred evenings and mornings” should be understood to refer to the number of daily sacrificial offerings; evening and morning; that were missed during the period of the temple’s desecration. In their calculation, they use a specification found in the Damascus Document for offerings to be made on the Sabbath. Using that specification, they find that the duration measure in Daniel 8:14 would equal precisely 3.5 years, as opposed to the shorter period of the conventional understanding; 3.25 years if a calendar of 354 days were used or 3.15 years using a 364-day calendar.⁶ They do not, however, take a position on the duration difference between Daniel 12:11 and 12:12.

A closer look at the verses in Chapter 12 shows that they are explicit only with respect to the defined beginning of the duration, not its end. “From the time that the regular burnt offering is taken away and the abomination that desolates is set up” (12:11a) is a specific condition that defines the beginning of the measured period. But the account in Chapter 12 does not actually provide an explicit ending condition. That is, there is no definite parallel in Chapter 12 to the specification in 8:14 that the ending condition is when, “the sanctuary shall be restored to its rightful state.” A parallel has been assumed by many but the text does not actually provide one. That assumption has led to conclusions regarding the actions and motives of the author that are difficult to accept.⁷

Montgomery accepts the conclusions of Gunkel and others that the two measures in Ch 12 “are successive glosses intended to prolong the term of 1,150 days announced at 8:14; that term was not fulfilled and these glosses, which must be very early, successively extend the time to 1,290 and 1,335 days.”⁸ Collins makes the point more precisely. He writes, “The conflicting numbers in 12:11–12 can only be explained as successive attempts to give precision to the ‘time, two times and half a time’ of verse 12:7. Verse 11 was presumably added after the lapse of the 1,150 days mentioned in 8:14, and 12:12 after the lapse of the number in 12:11.”⁹

Is the “successive gloss” argument reasonable? Why would the author, having observed that 1,290 days had passed without the occurrence of the ending condition, add an additional verse with another duration

⁴ All scripture translations are from the New Revised Standard Version Bible with the Apocrypha. Copyright ©1989 by the National Council of the Churches of Christ in the United States of America, unless otherwise noted.

⁵ See below, however, for a recent proposal by Michael Segal and Shlomo Wadler.

⁶ Michael Segal and Shlomo Wadler, “For 2300 Evenings and Mornings” (Dan 8:14): Recalculating the Cessation of the Daily Offering,” *Journal for the Study of Judaism* Vol. 53, (2022): 1–18. I will comment further on the precision of their calculations below.

⁷ I assume here that a single individual was responsible for the final composition and editing of the text as it appears in the Hebrew Bible.

⁸ James A. Montgomery, *The Book of Daniel: A Critical and Exegetical Commentary*, ICC, (Skokie, IL: Varda, 2016), 477. (Edinburgh: T & T Clark, 1927)

⁹ Collins, Daniel: With an Introduction to Apocalypse, Loc 1698.

measure? What purpose might he have had in leaving a clearly “incorrect” measure in the text? If he waited an additional forty-five days beyond the 1,290; and he then observed the ending condition, and then wrote the verse specifying 1,335 days, why did he not provide an explicit notice of the ending condition? That is, why did he not clearly record the event that ended the measured duration? And if he waited beyond the 1,335 days and did not observe the end of the measured period, what is the meaning of the 1,335-day measure? There are no good answers to these questions. There has been no convincing explanation of the “successive gloss” theory. There is only the assumption of parallelism that associates the Chapter 12 measures with that of 8:14.¹⁰

Di Lella does offer a possible solution in his suggestion, following Ginsberg, that the Masoretic Text of 12:7 contains a mistranslation of an assumed original Aramaic. After analyzing the possibility, though, he concludes, “It seems best to admit that what the glossators had in mind as happening at the end of 1,290 days in 12:11 and 1,335 days in 12:12 simply cannot be ascertained with any confidence. Only guesses are possible.”¹¹ Driver noted that earlier commentators resorted to transposing words in the text and changing punctuation in an effort to find clarity but acknowledges that “the answer was far from explicit.”¹² The question then becomes, why would the author, in a matter of such importance, choose to end his work with such an apparent lack of clarity?

In 1993, Jan Van Goudoever proposed that the durations found in Daniel are consistent with the use of the “ancient, theoretical so-called Zadokite calendar.”¹³ He argues in two ways that the end of the 1,335-day duration in Daniel 12:12 falls on the Feast of Weeks according to that calendar. In the first approach, he proposes that the twenty-fourth day of the first month; a date found in Daniel 10:4; is the Friday before the beginning of the period of the counting of the *omer*, which extends for forty-nine days from the Sabbath after Passover. The Feast of Weeks then falls on the fiftieth day after that Sabbath. There are two assumptions in that argument that are difficult to accept. Van Goudoever concludes that the three-week period of Daniel’s fast, the account of which is found in Daniel 10:2–3, ends on the twenty-fourth day of the first month. He proposes, then, that “a week” of fasting is actually eight calendar days because Daniel would not fast on the Sabbath. That Daniel would not fast on the Sabbath is a reasonable assumption, but that does not mean that “a week” of fasting occupies eight calendar days. Van Goudoever’s own characterization of the Zadokite year is as “in essence a year of weeks, or an endless series of Sabbaths, or simply a Sabbath calendar.”¹⁴ If the seven-day cycle is so crucial, how can we understand a week to mean eight days in this one instance? The second problem is that the festival of Passover would fall within that twenty-four day period. If Daniel would not fast on the Sabbath, he would certainly not fast on Passover. Eating the required sacrifice is a part of the commanded Passover observance. Therefore, the conclusion that the twenty-fourth day of the first month is the Friday before the Sabbath on which the counting of the *omer* begins, cannot be proven by reference to Daniel’s 10:2–3 fast.

In his second approach to tying the 1,335 day period to the Feast of Weeks, Van Goudoever writes, “the number 1,335 days (is) a composition of two numbers, 1,260 and 75. 1,260 means three and a half years (without an intercalary month of 30 days) and 75 days has something to do with the counting of the seven weeks and . . . the Feast of Weeks.”¹⁵ We cannot argue with the fact that counting seventy-five days from the first day of the first month would take us to the middle of the third month which, according to the calendar of *Jubilees*, is the date of the Feast of Weeks. However, both elements of this second argument also have difficulties. First, why should we think that the author of Daniel would signal his adherence to a 364-day calendar using, in critical part, a duration—1,290 days—created on the basis of a 360-day year plus an assumed 30-day intercalary *month*. The Zadokite calendar employed intercalary *days*, and (perhaps) intercalary *weeks*,¹⁶ but not intercalary *months*. Secondly, we have already seen that the first part of the seventy-five day calculation; the twenty-five day period proposed to equal Daniel’s twenty-four day fast plus the following day, the Sabbath; is uncertain. Van

¹⁰ There have been many efforts to find and explain an approach that associates these durations with messianic expectations, including many among the Adventist scholars. An interesting survey of those efforts was made by Hernandez in: Abner F. Hernandez, “Adventist Eschatology and the Interpretation of the Time Periods of Daniel 12:11-12,” *Andrews University Seminary Student Journal*, Vol 1 no. 1. 2015: 65–84.

¹¹ Hartman and Di Lilla, Daniel, 314.

¹² S. R. Driver, *The Book of Daniel with Introduction and Notes*, (Cambridge: Cambridge University Press, 1900), 204.

¹³ Jan Van Goudoever, “Time Indications in Daniel that Reflect the Usage of the Ancient Theoretical So-Called Zadokite Calendar,” *The Book of Daniel in the Light of New Findings*, A.S. Van der Woude, ed. (Leuven: Leuven University Press, 1993): 533–538, 533.

¹⁴ Van Goudoever, Time Indications, 534.

¹⁵ Van Goudoever, Time Indications, 538.

¹⁶ Boccaccini, for example, writes that “The sabbatical nature of the Zadokite calendar required the addition of weeks, not months, so that the appointed times for the festivals were not changed.” (Boccaccini, *Solar Calendars*, 322.) The question of the actual implementation of a system of intercalary weeks is still a matter of debate, but the logic of the use of weeks as opposed to months in a 364-day calendar system is strong.

Goudoever's own words, that "the 75 days has *something* to do with the counting of the seven weeks," (see n15, above; emphasis added), tell us that, while he might be certain of his conclusion, he is not certain of his proof of it.

Gabriele Boccaccini wrote on this topic in 2001 and 2002. Like Van Goudoever, Boccaccini proposed that the book of Daniel signals adherence to a variety of solar calendars. He acknowledged the distinction between the 364-day calendar of Enoch and the 364-day Zadokite calendar but noted that by the time of *Jubilees*, the differences were more theoretical than practical, finding that "both calendars were sabbatical."¹⁷ In his view, the calendar of the Zadokites, composed of twelve months of thirty days each, plus four intercalary days representing the solstices and equinoxes, was the one used in the Second Temple before the time of Antiochus.

Writing of Daniel 12:11–12 he finds that the forty-five day difference in duration "makes sense only if we have two consecutive 30-day months, one month plus a half (30+15), which is possible only in the solar calendar."¹⁸ Of the durations, themselves, though, he writes, "According to the 364-day calendar of *Jubilees* and Qumran, three and a half years equal 1,274 days. The addition of 16 days, and of a total of 61 days to reach 1,335 days, does not make much sense."¹⁹ He rejects the "successive gloss" approach to the duration issue and, like Van Goudoever, proposes that the date given in Daniel 10:4, the twenty-fourth day of the first month, must have been a Friday, which creates the same potential tie to the date of the Feast of Weeks. Like Van Goudoever, he realizes the importance of the number 1,260 in that calculation, but he looks beyond both the text and the time of Daniel to find a justification for its use. He sees the duration issues in Daniel 12 as having more theological than temporal significance; agreeing with Collins that "in Chapter 8 'the primary focus of the end is the restoration of the Temple cult,' while 'chapters 10–12 focus their hopes ... on the resurrection of the dead.'"²⁰ He calls the progressive lengthening of times an "almost careless, yet ingenious mechanism" that "fits well with the theology of the author more than [with] the concerns of any elusive glossator."²¹

Boccaccini argues that the Daniel 12 measures of time can be reconciled by reference to the book of Revelation, which in Revelation 11:3 and 12:6 specifies time periods equal to 1,260 days.²² He finds that "evidence strongly suggests that Daniel must have used the old Zadokite sabbatical calendar of 360+4 days."²³ If we ignore the four annual intercalary days,²⁴ the figure found in Revelation would be the equivalent of three and a half years: $360 \times 3 \frac{1}{2} = 1,260$. He then observes that adding one month to that figure would produce the 1,290 days of Daniel 12:11 and adding a further one and a half months would then produce the 1,335 days of Daniel 12:12. He proposes that this progression defines a movement through the Jewish liturgical calendar, beginning on the first day of the first month,²⁵ a beginning point to which he assigns a value of 1,260 days. He then adds thirty days to reach the 1,290-day mark of Daniel 12:11, noting that Passover occurs during that first thirty days. From that point, he adds another month and a half, arriving at the 1,335 days of 12:12, which he finds, as Van Goudoever did, would correspond to the Feast of Weeks using the calendar of *Jubilees*. The progression he suggests seems to be more an observation of the extension of time rather than evidence explaining its cause or purpose.

Boccaccini's proposed proof that Daniel holds to a version of the 364-day calendar seems forced. He looks beyond the time and evidence of the text itself, writing that, "It is time to hand back the notion of the delay of the end to the New Testament theology, from where it comes and to which it more properly belongs."²⁶ He provides, and offers as support, detailed calculations of the dates of events that are found in both 1 Maccabees and Josephus. He calculates those dates using a 364-day calendar and compares them to dates derived using a 354-day calendar. That comparison does not, he acknowledges, produce results that prove his argument, but it

¹⁷ Gabriele Boccaccini, "The Solar Calendars of Daniel and Enoch," *The Book of Daniel, Vol. 2, Composition and Reception*. VTSup Vol 83/2. John J. Collins, John J. and Peter W. Flint, eds. (Leiden: Brill, 2001), 312.

¹⁷ Boccaccini, *Solar Calendars*, 320.

¹⁸ Boccaccini, *Solar Calendar*, 312.

¹⁹ Boccaccini, *Solar Calendars*, 312.

²⁰ Boccaccini, *Solar Calendars*, 321, quoting: John J. Collins, "The Meaning of the End in the Book of Daniel," *Of Scribes and Scrolls: Studies in the Hebrew Bible, Intertestamental Judaism and Christian Origins*, (Lanham, MD: University Press of America, 1990): 91–98.

²¹ Boccaccini, *Roots*, Loc 2581.

²² Revelation 13:5 uses the equivalent duration of 42 months.

²³ Boccaccini, *Roots*, Loc 2581

²⁴ The "intercalary days" are the two solstices and the two equinoxes, which in some calendars are not counted as days.

²⁵ That is, the Hebrew month of Nisan.

²⁶ Boccaccini, *Solar Calendars*, 321.

does come close. He finds that “the closeness of these dates is striking.”²⁷ As striking as those results might be, closeness should not be the measure of the success of the argument. If the author were trying to convey a specific message with the numbers he used, why would he not use numbers that conveyed his message precisely?

Writing at about the same time as Boccaccini, Susan Fournier Mathews proposed in 2001 a different analysis of the duration problem. She sought a solution to the relationships among essentially all the numbers in Daniel.²⁸ She writes, “None of the specified numbers of days in Daniel is unintentional . . .”²⁹ But, specifically as to the numbers in Daniel 12:11–12, she concludes, “They are intended to be ahistorical and strictly symbolic.”³⁰ Her argument and her conclusion that their “full, symbolic meaning is discoverable only when read against the background of the Pythagorean ‘arithmology,’” are neither precise nor persuasive. Mathews observes that the three duration numbers of Daniel 8 and 12 are, in each case, nearly the same as “parallel Pythagorean plane numbers.”³¹ She asks, “What if all three specified numbers for days in Daniel (i.e., 1,150, 1,290, 1,335) are meant to be read as rounded approximations of Pythagorean plane numbers?”³² But, none of those three numbers is actually the same as the Pythagorean plane number she proposes as parallel. All are close, but all need to be rounded to produce the number targeted by the analysis, and the rounding convention she employs is inconsistent and idiosyncratic.³³ Mathews finds that “Daniel’s numerology with its use of rounded Pythagorean plane numbers in Daniel 12:11–12 is the author’s means of unifying his whole book.”³⁴ She sees the message of Daniel 12 as being a combination of apocalyptic tradition and numerology. Ultimately, though, her argument suffers the same problem as Boccaccini’s; that is, the product of her analysis only comes close to confirming her proposed solution. It is not precise. Closeness is interesting, but it is not proof. Mathews also acknowledges in a footnote that, “There is no Hebrew or Aramaic literature contemporary with Daniel that exhibits use of this Pythagorean system.”³⁵

Michael Segal and Shlomo Wadler argue in a recent study that the conventional understanding of the two thousand three hundred evenings and mornings of Daniel 8:14 has been incorrect; that it is not simply an alternate way to express a duration of 1,150 days. They argue that “evenings and mornings” should be understood to refer not to times of day but rather to the daily sacrifices to be made in the Temple. The duration implied, then, would be the number of days over which 2,300 sacrifices would be required. The typical daily schedule of sacrifices includes one in the morning and one in the evening, but Sabbaths, festivals, and other special days do not necessarily follow that pattern. Segal and Wadler analyze the number of required sacrifices “according to an early pre-sectarian halakhic interpretation of Leviticus 23:37–38, reconstructed based upon a Sabbath prohibition in Damascus Document XI, 17–18.”³⁶ Using those criteria, 2,300 required sacrifices would equal almost precisely 3 ½ years whether the calendar used has 364 days or 354 days. The authors find that “they are both close enough so that the count of 2,300 in Dan 8:14 would be considered accurate according to both calendrical systems.”³⁷ They do not take a position on which calendar Daniel assumes, but their analysis is based on provisions found in the Damascus Document, which is understood to hold to the 364-day calendar.

In an earlier study, Segal addressed the seemingly parallel phrases of Daniel 7:25b and 12:7b. He questioned the conventional meaning of the Aramaic duration phrase in 7:25b, proposing that the specification “a time, two times, and half a time,” should be understood as pointing toward an “unknown end-point, consistent with other apocalyptic visions.”³⁸ He concludes that the 1,290 day duration in Daniel 12:11 is “unrelated to

²⁷ Boccaccini, *Solar Calendars*, 324.

²⁸ Susan Fournier Mathews, “The Numbers in Daniel 12:11-12: Rounded Pythagorean Plane Numbers?” *The Catholic Biblical Quarterly*. Vol 63, no. 4 (2001): 630–646.

²⁹ Mathews, *Numbers*, 645.

³⁰ Mathews, *Numbers*, 645.

³¹ It is not necessary for our purposes that the reader understand the theory of Pythagorean plane numbers. Mathews provides the detail in her paper for those interested.

³² Mathews, *Numbers*, 641.

³³ The comparisons of the Pythagorean numbers to the Daniel numbers are: 1,156 rounded by Mathews down to 1,150; 1,296 rounded down to 1,290; and 1,332 rounded up to 1,335. Typical rounding convention would require the first two numbers to be rounded up, rather than down, and the third would be rounded down rather than up. Consistency would also require all to be rounded to the same degree of significance.

³⁴ Mathews, *Numbers*, 645.

³⁵ Mathews, *Numbers*, 634 n11.

³⁶ Segal and Wadler, *2300 Evenings and Mornings*, 1.

³⁷ Segal and Wadler, *2300 Evenings and Mornings*, 14.

The calculation using the 364-day calendar produces a required 2,306.5 sacrifices over 3.5 years. Using the 354-day calendar, the calculation is precisely 2,300 but a small margin for error is acknowledged by the authors that might raise the number to 2,301.5.

³⁸ Michael Segal, “*Calculating the End: Inner-Danielic Chronological Developments*,” *VT* 68, (Leiden: Brill, 2018): 272-296, 286.

historical reality”³⁹ and acknowledges that the extension of time by forty-five days in 12:12 “does not clarify what will happen at that point.”⁴⁰ Segal finds that the Aramaic duration phrase in 7:25b “emerges from the realm of eschatology” and that “Daniel 11 also reflects an eschatological viewpoint with an unknown endtime.”⁴¹

Segal looks to alternate readings of the Aramaic of 7:25b in Greek, Latin, and Syriac versions and to similar phrases found in the Qumran *Jubilees* manuscripts. But his study does not seek or propose an explanation of the durations of Daniel 12:11 and 12:12, or the difference between them, beyond terming them as “scribal addition(s) of more specific dates that were added in Chapter 12, reflecting the 3.5-year tradition that became dominant.”⁴² His analysis of the Aramaic phrase of 7:25b and the seemingly parallel Hebrew one in 12:7b makes it clear, though, that neither of those phrases is as straightforward as the convention has assumed. His highlighting of the issues raised, especially by the Aramaic עֲדָן וּפְלַג of 7:25b and the Hebrew וְחֻצֵי of 12:7b, points towards the issue that is the crucial argument of this paper.

Proposed Solution

If the author of Daniel intended to convey a message with his duration references, we must assume that he intended it to be accessible. He might have chosen a subtle means to communicate it and he might have had reason to hide the key to the solution. But it is only reasonable to believe that he would have hidden the key where it could be found; that is, in the text itself. I do not think that Di Lella was correct in concluding that “only guesses are possible.”⁴³ I think the author provides a clear, precise, and expected answer.

One of the conflicts presented in Daniel involves the power to “change the times and the seasons.” In Daniel 2:21 we find Daniel recounting his revelation regarding the king’s dream. He says that it is God who “changes times and seasons.” In 7:25, though, we read of one who will “speak words against the Most High, shall wear out the holy ones of the Most High, and shall attempt to change the sacred seasons and the law.” The “one” referenced in that verse is understood to be Antiochus IV and the attempt to change the seasons has been understood by some scholars to refer to a mandated change in the cultic calendar. Jaubert, Vanderkam, Boccaccini, Elior, and others have argued that Antiochus forced the temple establishment to adopt the 354-day Seleucid calendar for cultic use⁴⁴ rather than the 364-day calendar that had been in use—some argue⁴⁵—throughout the Second Temple period. But the text of Daniel appears to be silent on the subject of the calendar.

If Daniel was completed during the period of the edicts, its author would have been acutely aware of the calendar controversy. He used his considerable literary talents to provide an account of the major political events of his day using allegory and allusion. He would certainly have had a position on the calendar issue. The question had divided his community at least since the time of the earliest Enoch writings. Vanderkam, with Jaubert, writes that even many “late priestly writings (Ezekiel, P, Haggai, Zechariah, Chronicles, Ezra, Nehemiah, and perhaps some parts of Kings) evidence the very calendaric traits and concerns”⁴⁶ found in the early apocalypse literature. All the other early Jewish apocalypses and many contemporaneous non-apocalyptic writings addressed the calendar issue in some way. I do not believe the author of Daniel would avoid the issue. I think he does tell us that he holds to the 364-day calendar of the early Jewish apocalypse literature. He makes his position available, but not explicit. He calls our attention quite openly to two of the three elements that create his message. The third element, though, while available, must be derived. He directs our attention to it, but we must see it.

The First of Three Values

We are drawn toward the first element of the solution by the lack of parallelism between the definition of the durations found in Daniel 8:14, 12:11, and 12:12. Those have been understood to be parallel but, as we have

³⁹ Segal, *Calculating the End*, 294.

⁴⁰ Segal, *Calculating the End*, 291 n54.

⁴¹ Segal, *Calculating the End*, 296.

⁴² Segal, *Calculating the End*, 296.

⁴³ Hartman and Di Lella, *Daniel*, 314.

⁴⁴ Vanderkam suggests that the 354-day calendar had already been used for purposes of civil administration in Judea for some, perhaps long, period of time. See James C. VanderKam, “2 Maccabees 6, 7a and Calendrical Change,” *Journal for the Study of Judaism in the Persian, Hellenistic, and Roman Period*, Vol 12, no. 1 (1981): 52–74.

⁴⁵ Some, such as Jonathan Ben Dov, object to this conclusion. See, for example: Jonathan Ben Dov, “The 364-day Year in the Dead Sea Scrolls and Jewish Pseudepigrapha,” *The Qumran Scrolls and Their World*. Menahem Kister, ed. (Jerusalem: Yad Ben-Zvi (Hebrew), 2009): 435–476. And, earlier, Phillip R. Davies, “Calendrical Change and Qumran Origins: An Assessment of VanderKam’s Theory,” *The Catholic Biblical Quarterly*, January 1983. Vol. 45, no.1: 80–89.

⁴⁶ James C. VanderKam, “The Origin, Character, and Early History of the 364-Day Calendar: A Reassessment of Jaubert’s Hypothesis,” *The Catholic Biblical Quarterly*, Vol 41, no.3 (1979): 390–411.

seen, close reading reveals that they are not. As we look more closely at the adjacent text, we find that there is another lack of parallelism. The passage in Daniel 7:25 regarding Antiochus, quoted above, continues "...and they will be delivered into his power for a time, two times, and half a time." That text is written in Aramaic (Dan 7:25b). It reads:

וּיְתִיבֹן בִּידֵה עַד-עַד וְעַדִּין וּפְלַג עַדִּין

The last Aramaic term in that phrase, עַדִּין וּפְלַג עַדִּין appears to unambiguously mean "and half a time." So, the translation "a time, two times, and half a time" has been uncontroversial.⁴⁷ The phrase has been generally agreed to have a numerical value equal to $1 + 2 + \frac{1}{2} = 3 \frac{1}{2}$ times. And "a time"; that is, an עַדִּין; has been agreed to mean a year. The issue, as we have seen, is the inability to fit that value to the duration of the desecration of the temple. The association of that time reference with the "half week" of years, or three and one-half years, in Daniel 9:27, which Boccaccini cites, and many commentators explore, is ultimately not helpful. The key to the first element of the author's message is not in that Aramaic phrase but in the Hebrew which appears to be its parallel in Daniel 12:7. There, Daniel learns that a time of great trouble and distress will come. He is told "There shall be a time of anguish, such as has never occurred..." (Dan 12:1) and he asks, "How long until the end of these wonders?" (Dan 12:6b) The heavenly being answers that the awful period will extend only "for a time, two times, and half a time," after which the promises to the holy people will be fulfilled. The language in that part of Daniel is Hebrew, not Aramaic. It reads:

לְמוֹעַד מוֹעֲדִים וְחֶצִי

This Hebrew phrase in Daniel 12:7b is typically translated and understood in the same way as the seemingly parallel Aramaic phrase in 7:25b. But there is an obvious and significant difference between the two. The last term of the Hebrew phrase is not complete; that is, it does not end מוֹעַד וְחֶצִי, as we would expect it to end in order to parallel the Aramaic of 7:25b, which has the complete expression, עַדִּין וּפְלַג עַדִּין. That expected parallel is not maintained.⁴⁸ The final word of the Aramaic phrase, that is the עַדִּין to which the "half" seems to refer, is missing in the Hebrew. The Hebrew phrase does not end מוֹעַד וְחֶצִי, as we would expect it to end if the parallel were to be maintained. It ends simply וְחֶצִי, meaning "and a half" or "and half." The absence of the expected Hebrew parallel, מוֹעַד, draws our attention to the missing object; that is, a year. The value "one year," then, is one of the elements conveying the author's message.

The absence of the מוֹעַד term has, of course, been recognized. The KJV is literal in its translation, giving "and a half." Charles translates the last term as "and a[n] half."⁴⁹ Collins also provides the literal, "and a half", translation in his 1993 Commentary.⁵⁰ But many others add the expected, but absent, expansion. Di Lella has "and half a year." The NRSV gives "and half a time", although it does note the literal "and a half" in a footnote. The NJPS has "and half a time", as do many others. Driver uses "and a half" but specifically notes that the phrases in 7:25b and 12:7b are "the same expression" and he assigns them both the same value.⁵¹ Segal proposes that the expression in 12:7b "is almost certainly a Hebrew translation of 7:25."⁵² He suggests that the Hebrew word חֶצִי is "the result of adopting the very common meaning of פְּלַג and translating it into Hebrew."⁵³ But he does not offer an explanation for the missing word מוֹעַד. Those who have adopted the position that the phrases in 7:25b and 12:7b are equivalent have perhaps been influenced by the Septuagint, which does supply the missing term in 12:7b. That is, the LXX gives the phrase as καὶ ἥμισυ καιροῦ in both places, but the added

⁴⁷ The text in Driver has "a time, times and the dividing of time" in 7:25b but in Driver's notes he uses "a time, times, and half a time," and he specifies the value as $3 \frac{1}{2}$ years. See: Driver, Daniel, 93.

Segal believes the more accurate understanding of פְּלַג is "a part" rather than "a half" and that וּפְלַג עַדִּין is better understood as "and the division of (the) time" which he suggests means "a specific subdivision of the (final period of the eschaton), during which the judgment will take place" Segal, Calculating the End, 283.

⁴⁸ There is another clear lack of parallelism. The conjunctive ו in the Aramaic term וְעַדִּין is not paralleled in the Hebrew מוֹעֲדִים. The absence of that conjunction might be seen as a hint that an arithmetic operation of addition has been purposely omitted in the 12:7b account. And that might lend support to the idea that an operation of multiplication should be understood. Segal points out, though, that in the text of 4QDan^a (4Q112) the conjunctive ו does not appear in the Aramaic expression. So that lack of parallelism is uncertain. Segal, Calculating the End, 278.

⁴⁹ R. H. Charles, *A Critical and Exegetical Commentary on The Book of Daniel*, (Eugene, OR: Wipf & Stock, 2006), 393. (Previously: Oxford: Oxford University Press, 1929)

⁵⁰ John J. Collins, *Daniel: A Commentary on the Book of Daniel. Hermeneia—A Critical and Historical Commentary on the Bible*, (Minneapolis: Fortress, 1993), 399.

⁵¹ Driver, Daniel, 204.

⁵² Segal, Calculating the End, 278.

⁵³ Segal, Calculating the End, 291.

καλοῦ in 12:7b seems to assume the missing מועד in the MT was an error. In its attempt to correct the “error” it may have deflected attention from a key part of the author’s intended message.⁵⁴

The Second of Three Values

The second element of the author’s message is the unambiguous duration difference between 12:11 and 12:12. The difference between the two is forty-five days. That is clear. The question is whether the author’s point is to be found in the two durations, or in the *difference* between the two. If, as Mathews puts it, the numbers “are intended to be ahistorical and strictly symbolic”; and we know that no explanation for the durations themselves has yet satisfied; perhaps our attention is meant to be drawn to the clear difference between the two; that is, forty-five days. It is the difference between the two, after all, that is associated with the “happiness” of 12:12. The action that results in that happiness is “perseverance,” as NRSV has it; or “waiting,” which NJPS, Collins, and Charles prefer. Di Lella understands it as having “patience.” The sense of all approaches is that an extension of the Daniel 12:11 duration by forty-five days is associated with happiness and knowledge. Segal, whose attention to these verses is quite recent, notes that he does “not address 12:12, which extends the period by another 45 days, until 1,335 days, but does not clarify what will happen at that point.”⁵⁵ While the durations of 12:11 and 12:12 continue to challenge analysis, the difference between the two is clear. A second element of the author’s message is the unambiguous duration measure of forty-five days.

The Third of Three Values

For the third element of the solution, we need to look again at 12:7b. The absence of the Hebrew מועד provides one element of the author’s message, as proposed above, but its unexpected absence also creates an ambiguity. The lack of parallelism in the Hebrew versus the Aramaic texts is obvious, but the question of its meaning seems to have gotten no scholarly attention.

In assessing its importance, we should first ask if the absence of a clear object of the term הצי in 12:7b is meaningful. There are 103 cases in the Hebrew Bible in which the word חצי is found.⁵⁶ Only in Daniel 12:7b is the חצי term associated with a series of value expressions, rather than with a single expression. Looking at the other biblical instances, we find that the value to which the חצי term applies can either precede it, such as אמה וחצי, one-half cubit;⁵⁷ or follow it, such as חצי הדם, half of the blood.⁵⁸ The object can be either singular, as in those two examples, or plural as in אמתים וחצי, two and one-half cubits,⁵⁹ or הצי הטאריך, half of your sins.⁶⁰ In a few cases, we find a complete expression of value, as in אמה וחצי האמה, a cubit and half a cubit,⁶¹ or שני המטי וחצי המטי, two tribes and a half a tribe.⁶² Whether in the many instances of “the half-tribe of Manasseh,” or where measures are provided in a form such as “one and a half cubits,” or in specifications such as “half the district of Jerusalem,” or where חצי refers to “the middle” of something, the meaning of the expressions in which the word חצי is found in the biblical texts is clear, *except* in the case found at Daniel 12:7b.⁶³ The unique nature of the 12:7b phrase can be tested further. We can look to instances of other fractional expressions in the biblical text to see if any provides a parallel to the חצי expression of Daniel 12:7b. There are many instances in which the text includes the fractions one-tenth, one-sixth, one-fifth, one-fourth, or one-third. In none of them is the object of the fractional measure ambiguous. And, nowhere else do we find a fractional expression as a part of a series of value expressions such as: $1 + 2 + \frac{1}{2}(x) = ?$, which we find in Daniel 12:7b.

There is no need for the ambiguity of 12:7b. The author provides a complete expression in the Aramaic of 7:25b. And in Daniel 9:27, for example, he is precise in his statement of a duration in Hebrew; that is, שבוע אחד וחצי השבוע. If the author wished to construct an unambiguous statement parallel to that of 7:25b, he could have done so. And if he were to make an error in his text, it is hardly likely that it would be in its critical final verses. It is even more unlikely that an error would be in an expression of time. As Collins puts it, citing

⁵⁴ My thanks to James C. VanderKam for pointing this out.

⁵⁵ Segal, *Calculating the End*, 291 n54.

⁵⁶ I exclude from this count cases such as that in Deuteronomy 32:23 where the same pattern of consonants has the meaning *arrows*.

⁵⁷ Exodus 25:3, for example.

⁵⁸ Exodus 24:6, for example.

⁵⁹ Exodus 37:1, for example.

⁶⁰ Ezekiel 16:5

⁶¹ 1 Kings 7:32

⁶² Joshua 14:3

⁶³ The same can be said for the instances of חצי found in the Dead Sea Scrolls. None of the instances in the scrolls is ambiguous and in none of the DSS instances is the חצי term part of a series of value expressions.

Josephus, “Already in antiquity (chronology) was regarded as *the* distinctive feature of (Daniel’s) prophecy” (emphasis added).⁶⁴

I think it is fair to conclude that the lack of parallelism, the ambiguity, and the use of a uniquely constructed expression of time, were intentional. If that is so, what was the author’s purpose? I think the lack of parallelism, the missing $\tau\omega\epsilon\theta$, allows the reader, having understood the Hebrew phrase to specify “for a time, two times, and a half . . .” to ask, *and a half of what?*

To assume without question what only appears to be obvious—that the measures in 7:25b and 12:7b have the same duration value—is to ignore the actual language of the text. There is more than one way to formulate an answer to the question “and half of what?” There is a plausible alternative to the conventional, “and half a time.” It is this: rather than reading “a time, two times, and a half” as:

$$1 + 2 + \frac{1}{2} = 3 \frac{1}{2},$$

We can read it as:

$$(1 + 2) + \frac{1}{2} (1+2) =$$

$$3 + 1 \frac{1}{2} = 4 \frac{1}{2}$$

The value of the 12:7b phrase, in that reading, is not 3 ½ times or years, which would parallel 7:25b, but 4 ½ times or years. The value 4 ½, in that reading, has nothing to do with the duration of the desecration of the altar. Its purpose is solely to allow the author’s message to be understood; and to define the relationship between the two other values to which our attention has been very clearly drawn.

The use of the term יצי in that way was well within the limits of the mathematics of the time of Daniel’s author. Seleucid-era mathematics was highly sophisticated, including in matters of astronomy and in calendric calculations.⁶⁵ Segal describes the scribes responsible for Daniel as “experts in multiple areas of inquiry, including apocalyptic, law, calendar and chronology.”⁶⁶ Seeing the term יצי in the way proposed is not a challenge of calculation. The challenge is to recognize that the defect in the assumed Daniel 12:7b parallel to Daniel 7:25b was not an error; that it was purposeful; that the apparent ambiguity points to the critical element of the solution.

Summary of Solution

The author has drawn our attention to three measures of time:

- a) One year: The lack of parallelism in the text calls our attention to the term, $\tau\omega\epsilon\theta$, understood to mean one year.
- b) Forty-five days: The extension of time that results in the happiness of 12:12 is 45 days.
- c) 4.5 years: The alternate understanding of 12:7b.

The relationship among the three values is obvious once the values are identified and isolated. And its message is expected. An extension of duration by forty-five days over a 4 ½ year period equals ten days per year. The one described as happy in Daniel 12:12 is the one who “waits” forty-five days over a period of 4 ½ years; that is, the one for whom there are ten additional days in a year.

There is nothing in that calculation that requires approximation, nothing that depends on idiosyncratic rounding, and nothing that requires looking beyond the text. Using that calculation of 12:7b allows a straightforward relationship to be seen and a straightforward message to be understood. The author of Daniel held to the calendar of 364 days, the calendar of the early Jewish apocalypse literature, just as we would expect him to do.

⁶⁴ John J. Collins, *The Apocalyptic Vision of the Book of Daniel*, Harvard Semitic Monographs, Num 16, (Missoula, MT: Scholars Press, 1977), 153.

⁶⁵ There are many works on the history of mathematics that evaluate the evidence of a sophisticated Babylonian mathematics. See, for example: Morris Kline, *Mathematical Thought from Ancient to Modern Times*, (New York: Oxford University Press, 1972.) Kline specifically notes the advances in mathematics during the Seleucid period of last three centuries BCE and its association with astronomical texts (p 11). For more detailed analysis of the state of mathematics during the Seleucid period, see: Jens Høyrup, “Seleucid Innovations in the Babylonian ‘Algebraic’ Tradition and their Kin Abroad,” *From China to Paris: 2000 Years Transmission of Mathematical Ideas*, Boethius 46. Yvonne Dold-Samplonius, et al, eds. (Stuttgart: Steiner, 2002): 9–29.

⁶⁶ Segal and Wadler, 2300 Evenings and Mornings, 15.

CONCLUSION

There is every reason to believe that the author of Daniel would share the views of the other writers of the early Jewish apocalypse literature on the question of the appropriate cultic calendar. That view was also shared by the sectarians and by other non-sectarian authors of the time. But he did not take the approach of the author of *Jubilees*, for example, who, writing only a few years after the completion of Daniel, made his adherence to the 364-day calendar explicit. Rather than provide direct confirmation of his position, he marked a path to it using a phrase that is unique in the biblical text.

Collins wrote of the lack of parallelism in the duration accounts that “the exact date was not ultimately important.”⁶⁷ And in that conclusion, he was certainly correct. Van Goudoever’s and Boccaccini’s intuition that the calendar was the issue in the argument was also correct. What has been missing is an understanding of the mechanism fashioned by the author to convey his message. The approach suggested here produces a precise result, using information derived only from the author’s text. The message it uncovers is clear and important and expected. The numerical relationship that provides the key to the message is expressed in a phrase that is unique in biblical literature. The author used the phrase in the critical concluding verses of his text. His interest in and attention to matters of time was noted as early as the first-century report of Josephus. The calendar issue was certainly on his mind, which is clear from his text in Daniel 2:21 and Daniel 7:25. It would be out of character for his text to be silent on an issue that was so important at the time of its completion. We can see from this analysis that it was not silent. I believe we have not understood the author’s message because we have not asked the correct question: “and half of what?”

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⁶⁷ Collins, Daniel with an Introduction to Apocalypse, Loc 1796.

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List of Abbreviations Used

AB	Anchor Bible
BZ	<i>Biblische Zeitschrift</i>
FOTL	Forms of the Old Testament Literature
ICC	International Critical Commentary
NRSV	New Revised Standard Version Bible
VT	<i>Vetus Testamentum</i>
VTSup	Supplements to Vetus Testamentum

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