What Does the Computer Have to Do with Textual Criticism? Innovative Technology for the Management and Analysis of Collation Data and the Grouping of Manuscripts

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A. Introduction

The first part of the title of this paper is, as you may have deduced, inspired by Tertullian's famous question, "Quid ergo Athenis et Hierosolymis?" His words were intended to highlight the distinction that he was making between the Academy and the Church, or haeretici and Christians, whose perspectives (which he represented by the two cities that he named) were, to his way of thinking, diametrically opposed to one another. Similarly, it will have been only a few decades ago that not many would have seen much of a connection between the computer and the discipline of textual criticism. In recent years, however, dramatic changes have occurred as more and more scholars have become attuned to the possibilities with regard to facilitating such research with the aid of this kind of technology. Now important ventures involving textual research — such as The Hexapla Project, The International Greek New Testament Project, The Greek Bible in Byzantine Judaism, The Greek Online Lexical Database, and, dare we say, the Göttingen Septuaginta IV Maccabees project — are pushing the frontiers of what may be accomplished with the use of electronic databases and computer analysis. Preliminary and informal discussions have taken place during the past year or two concerning the possibilities of collaboration amongst these projects with a view both to sharing technological insights and to exploring ways to make the benefits of such advances available to the world of scholarship at large.

The origins of the august project that we are celebrating during this conference go back, as we all know, 100 years. The roster of those who have played a role in its development includes luminaries in biblical and Septuagint research. My² introduction to Septuagint textual criticism came in classes that I took with my Doktor-Grossvater at the University of Toronto, John William Wevers, the editor of the Pentateuch volumes in the Göttingen Septuaginta series. My Doktor-Vater, Albert Pietersma, in his address at the inauguration of the Septuagint Institute of

Tertullian, De praescriptione haereticorum, 7.9.

² Throughout the rest of this paper, when the first person singular pronoun is used, the reference is to Robert Hiebert.

Trinity Western University in 2005, recalled "the human effort and perseverance" of his Doktor-Vater, the same John Wevers, in carrying out that Herculean task:

Day in day out, month after month, I would see him sit behind his desk, typically his left hand on the Göttingen collation book, which contained all the textual data from regular Greek manuscripts, and his right hand poised to make notations. And so it went, year after year, one variant at a time, from the beginning of the book, chapter 1:1, word one, to its end no matter how far away. He himself has likened this undertaking to climbing Mt. Everest. More mundanely one might describe it by using a modern Greek proverb...: $\Phi a \sigma o \tilde{\nu} \lambda \iota \ \tau \dot{\sigma} \ \varphi a \sigma o \tilde{\nu} \lambda \iota \ \gamma \varepsilon \mu \iota \zeta \varepsilon \iota \ \tau \dot{\sigma} \ \sigma a z z o \tilde{\nu} \lambda \iota$ "Bean by bean fills the bag." (And the beans were many and the five bags of Moses were very big.)"

In a 1999 article, Wevers described what was involved in preparing his editions of the books of the Pentateuch, beginning with Genesis.

I felt that it was necessary immediately to make some kind of attempt at establishing the internal textual history of the book. I went through the evidence over and over again to find mss [sic] groupings. Gradually some order became evident...

In the course of working on the text I had written up a considerable number of studies, principally concerning the textual groups which constituted the textual history of Genesis. I analyzed each one by collecting all the readings of each group in a separate study, and characterizing each reading grammatically, thereby attempting to describe what was distinctive for each group... Particularly important were relationships among these groups, and these became part of these studies as well.⁴

It goes without saying that there is no substitute, even in the age of the computer, databases, and the internet, for becoming intimately familiar with the text of a book, or for the kind of persistence and methodological rigour in the analysis of a text that Wevers et al. have modeled for us. That said, the computer can be a very useful tool for classifying, organizing, and analyzing textual data. This is true, as we shall see presently, especially in regard to the kinds of tasks that Wevers mentioned in the excerpt I have quoted above, namely working out the manuscript groupings and establishing the textual history of a book.

B. Management and Analysis of Collation Data

At the IOSCS meetings in Ljubljana in 2007, Nathaniel Dykstra and I gave a report on the database and computer program that we have been developing in order to facilitate the work of preparing the critical edition of Greek IV Maccabees.⁵ This

³ A. Pietersma, Septuagint Studies in Canada. An unpublished paper presented at the inauguration of the Septuagint Institute, September 17, 2005.

⁴ J. W. Wevers, Apologia pro Vita Mea: Reflections on a Career in Septuagint Studies, in: BIOSCS 32 (1999), 65–96, here 70 and 80.

⁵ R. J. V. HIEBERT / N. N. DYKSTRA, Septuagint Textual Criticism and the Computer: 4 Maccabees as a Test Case, in: M. H. K. Peters (ed.), XIII Congress of the International

has entailed putting into electronic form the textual data of more than 70 Greek manuscripts and of the Syriac version, i.e., the collations that were recorded in two volumes prepared over a 56 year period⁶ under the auspices of the Septuaginta–Unternehmen in Göttingen. That part of our project is now complete. The next phase has involved constructing a relational database that allows for the analysis of this textual evidence. A considerable amount of work has been done in this regard, though we continue to make refinements and to devise ever more sophisticated search and analytical capabilities. Later in this presentation we will highlight some of the features that we hope to be able to add in this regard. Our goals in the development of this research tool are to facilitate the completion of the critical edition of IV Maccabees for the Göttingen Septuaginta series and to contribute to the advancement of Septuagint textual scholarship in the twenty-first century.

Several preliminary critical editions of Greek IV Maccabees have been published in the past, including those of Otto F. Fritzsche,⁷ Henry Barclay Swete,⁸ and Alfred Rahlfs.⁹ These were based, however, on a very limited number of manuscripts: in the case of Swete and Rahlfs, in fact, only the uncials Alexandrinus, Sinaiticus, and Venetus. More recently, Hans-Josef Klauck has published a German edition of IV Maccabees for which he has taken into account some of the textual data that has been gathered at the Septuaginta-Unternehmen and that had not been factored in to those earlier Greek editions.¹⁰

For Klauck's edition of IV Maccabees, a preliminary list of groups was prepared in consultation with Robert Hanhart. Below is an augmented version of that list, with the "Übrige kollationierte Handschriften," which Klauck did not specify, included and distinguished as to whether the mss are, in fact, menologia or non-menologia. Our thanks go to Herr Detlef Fraenkel of the Septuaginta-Unternehmen for supplying us with helpful information in that regard.

Unzialen:

SAV

Rezension L: 236 534 728

Organization for Septuagint and Cognate Studies: Ljubljana, 2007 (SBL.SCS 55), Atlanta 2008, 167–182.

^{6 1916–1972.}

⁷ O. F. Fritzsche (ed.), Libri Apocryphi Veteris Testamenti Graece, Lipsiae 1871. See M. Hadas (ed.), The Third and Fourth Books of Maccabees (IAL 3), New York 1953, 137.

⁸ H. B. Swete (ed.), The Old Testament in Greek according to the Septuagint, Vol. 3, Cambridge ³1905.

A. Rahlfs (ed.), Septuaginta id est Vetus Testamentum graece iuxta LXX interpretes.
 Vol., Stuttgart 1935. See H.-J. Klauck, 4. Makkabäerbuch (JSHRZ 3,6), Gütersloh 1989, 680.

¹⁰ Klauck, 4. Makkabäerbuch, 679.

Rezension l: 62 542 747^c

Rezension q: 71 74 107 120 370 380 452 731

Codices mixti:

46 (davon direkt abhängig: 52 332) 55 (besonders wertvoll) 58 340 668 771 930

Josephus-Handschriften: 747^(x) 759

Menologienhandschriften der Gruppe c: 577 690 741 491

Übrige kollationierte Handschriften: ca. 40 Menologienhandschriften

- Menologia: 316 317 322 325 391 397 446 455 457 467 472 473 586 587 591 592 594 595 596 597 617 639 640 656 682 683 699 713 714 738 773 778 782 789
- Non-menologia: 585 607 641 677 686 695 774

When I began working on this project, it was obvious to me that the place to start in establishing the textual history of IV Maccabees was with the ms groupings that Klauck had published. This does not mean that I assumed that those groups would not need to be checked carefully in the light of the collation data that became available to me when I accepted this assignment. But at least some of the groups seemed to be solid. There were, to be sure, question marks about others, and the large group of "übrige Handschriften" required further analysis.

To an audience such as this one, it goes without saying that the establishment of ms groups is done on the basis of readings that diverge from the text that an editor determines, through careful analysis of manuscript evidence, is original, or at least as close to it that one can at a given point in time get. Patterns of agreement among textual witnesses with regard to divergent readings emerge as one familiarizes oneself with the data. It then gradually becomes apparent that certain witnesses or groups of witnesses tend either to attest to that original text or to exhibit alternatives to it. That process of analysis ultimately gives rise to a textual history.

The task of checking Klauck's groups and analyzing the collation data in order to determine if there were other groups to be discovered seemed to Dykstra and me to be one well suited to the application of computer technology. As mentioned above, that meant putting all of the textual evidence in the collation books into electronic form and constructing a relational database to facilitate this kind of

analysis. While that continues to be a work in progress, we are pleased to be able to report on what has been achieved thus far. In this paper, we shall focus on a data set from ch. 5 of IV Maccabees.

We should mention that this data pertains, in each instance, to the number of times that whole ms groups attest to variants to our critically reconstructed lemma in relation to the total number of possible readings, which we define as the number of times that any or all mss in a group attest a reading. This is, therefore, not a complete picture of the strength of a given group or collocation of witnesses, inasmuch as it does not take into account partial group attestation, but it is accurate as far as it goes. The reason the computer program has been set up in this way is that we want to determine which mss do, in fact, regularly agree on variant readings, rather than simply quantifying the number of times that any particular ms attests a reading. Partial group attestation can, of course, only be quantified once one has a sense of what a complete group looks like. When that has been determined, the analytical process can be further refined to take into account partial group attestation. The readings listed below are grouped according to different types: pluses (+, pr), minuses (>, \capca), transpositions (tr), and "other" (e.g., lexical, grammatical).

1. Uncials: A S V¹¹(0 readings – 0.00%) Uncials without V: A S (1/53 readings – 1.89%)

1 other

Verse	Lemma	Variant
5:30	τήξειας	$\tau\eta\xi\epsilon\iota\varsigma$ (S*)

In our analysis of the textual data, it has become evident that the uncials (along with certain other mss) are generally reliable witnesses to the original text of IV Maccabees. Ms groups, however, as mentioned above, are determined on the basis of variants to the original text. The low level of agreement amongst the uncials, therefore, indicates that when they do not attest the original text, they usually diverge from one another.

¹¹ V is not extant for most of ch. 5 and so is not included in the data set that is analyzed for this paper.

2. L: 236-534-728-491 (27/77 readings - 34.62%)

7 pluses, 5 minuses, 5 transpositions, 10 other

Verse	Lemma	Variant	
5:4	ἀγέλης	+ των εβοαιων	
5:15	δημηγοφεῖν	+ και λεγειν	
5:33	$\dot{\varepsilon}\mu av au o ilde{v}$	+ δοχειν	
$5:7/8^{12}$	βδελύττη	$\operatorname{pr} \sigma v$	
5:26	init	pr και	
5:27	ἀναγκάζειν	$\operatorname{pr} \tau o$	
5:36	γήρως	$\operatorname{pr} \varepsilon \pi \iota$	
5:5	δ	>	
5:13	$\delta \zeta$	>	
5:21	$\delta \zeta$	>	
5:29	οὐ παρήσω	>	
5:30	μου 2°	>	
5:1	κυκλόθεν ἐνόπλων	tr	
5:18	$ ilde{\eta} v \; \eta \mu ilde{\imath} v$	tr	
5:19	$\epsilon ilde{l} v lpha \iota$	post $\tau \alpha \acute{v} \tau \eta \nu$ tr	
5:38	οὔτε λόγοις	post $ ilde{\epsilon} ilde{\rho} ilde{\gamma} ilde{\omega} ilde{v}$ tr	
5:38	δεσπόσεις	post fin tr	
5:2	παφεκέλευεν	παφεκελευσε(ν)	
5:4	Έλεάζαρος	$arepsilon \lambda arepsilon a \zeta a arrho$	
5:4	$ au ilde{\omega} u$	$ au o \iota arsigma$	
5:4	ήλικίαν 2°	φιλοσοφιαν	
5:14	<i>ἐποτ</i> ούνοντος	εποτουναντος	
5:23	έξασχεῖ	εξασκειν	
5:25	$arkappa \delta \sigma \mu o v$	$vo\mu ov$	
5:27	$\delta arepsilon$	ουν εστιν	
5:27	$\dot{\epsilon}\chi heta \iota \sigma au \eta$	$a\iota\sigma\chi\iota\sigma au\eta$	
5:33	οἶκτίρομαι	οικτειφομαι	

Ms 491 fits much better with Klauck's L group than with his c group. In ch. 5, the L-491 combination agrees on 27 out of 77 variant readings (34.62%) whereas the c-491 combination never agrees on variants to the original text. With regard to c, we have observed that mss 577 690 741 are, in fact, among the collection of witnesses that often attest the original text. When that does not occur, their levels of agreement with one another are low.

¹² Double verse numbers occur where there are differences in numbering between the Göttingen collation book and Rahlfs' edition, respectively.

3. *q* without 380 731:¹³ 71-74-120-370-452-3002 (20/78 readings - 25.64%)

4 pluses, 4 minuses, 12 other

Verse	Lemma	Variant	
5:6/7	σου 2°	+ και	
5:18	$arepsilon \dot{l}$	$+ \varkappa a\iota$	
5:33	ὥστε	$+ \mu \varepsilon$	
5:36	γήρως	$\operatorname{pr} \tau o v$	
5:5	δ	>	
5:6/7	ἔχων	>	
5:21	<i></i>	>	
5:30	μου 2°	>	
5:2	παρεκέλευεν	παρεκελευσε	
5:2	Έβοαῖον	των εβοαιων	
5:11	τῶν λογισμῶν	τον λογισμον	
5:12	οἰκτιρήσεις	οικτειοησεις	
5:22	μετά	μετ	
5:23	έξασκεῖ	εξασκειν	
5:25	κόσμου	νομου	
5:26	$\delta arepsilon$	δ	
5:27	έχθίστη	αισχιστη	
5:33	οἶκτίοομαι	οιχτειοομαι	
5:34	$o \mathring{v} \delta \acute{arepsilon}$	$ov\delta$	
5:37	εἰσδέξονται	ποοσδεξονται	

4. q1: 44-107-610 (32/69 readings - 46.38%)

3 pluses, 7 minuses, 2 transpositions, 20 other

Verse	Lemma	Variant	
5:7/8	τί	$+\delta \varepsilon$	
5:27	fin	$+ \eta \mu \alpha \varsigma$	
5:33	$\H{\omega}\sigma auarepsilon$	$+\overset{\cdot \cdot \cdot}{\mu \varepsilon}$	
5:4	$\dot{\epsilon}\varkappa - \dot{a}\gamma\dot{\epsilon}\lambda\eta\varsigma$	>	
5:6	$ au a ilde{v} au a$	>	
5:27	$\delta \pi \omega \varsigma$ – fin	>	
5:30	μου 2°	>	
5:38	$\dot{a}\sigmaarepsiloneta ilde{\omega}v-\deltaarepsilon\sigma\pi\delta\sigmaarepsilonarepsilon$	>	
5:11	καί 2°	\cap (12)	
5:24	ὥστε 1°	\cap 2°	

¹³ Ms 731 is not extant in ch. 5, while 380 lacks most of ch. 5. Consequently they are not included in the analysis of this data set.

Verse	Lemma	Variant
5:5	αὐτὸν ἰδών	tr
5:38	δεσπόσεις	post fin tr
5:2	παφεκέλευεν	παρεκελευσεν
5:2	τοῖς δορυφόροις	$av au o\iota \varsigma$
5:2	Έβραῖον	των εβοαιων
5:4	Έλεάζαρος	ελεαζαο
5:6	συμβουλεύσαιμ' ἄν	$\sigma v \mu eta o v \lambda arepsilon v \omega$
5:7/8	τὴν τοῦδε	$ au\eta\dot{\delta}arepsilon$
5:11	τὧν λογισμῶν	τον λογισμον
5:14	$\dot{arepsilon}\pi\dot{\iota}- ext{fin}$	ακουσας ο ελεαζαο ητησε λογον
5:22	$\mu arepsilon au cupa$	$\mu arepsilon au$
5:22	βιούντων	υγιουντων
5:23	έξασχεῖ	εξασκειν
5:25	κόσμου	νομου
5:26	$\delta arepsilon$	δ
5:27	<i>ἐπεγγελάσης</i>	επιγελασης
5:30	<i>ἐκ</i> κόψειας	εκκοψεις
5:33	οἰχτίοομαι	οιχτειφομαι
5:36	μιανεῖς	μιανεί
5:36	γήρως	γηρας
5:37	εἰσδέξονται	προσδεξονται
5:38	λόγοις	δία λογων

5. q2: 55-747 (18/26 readings - 69.23%)

3 pluses, 3 minuses, 2 transpositions, 10 other

Verse	Lemma	Variant	
5:4	ἀγέλης	+ εβοαιος (747 ^{txt})	
5:26	μέν	+ ovv	
5:15	έξουσίαν	pr την (747*)	
5:16	$arepsilon ilde{ ilde{l}} v lpha \iota$	> ' ' '	
5:30	μου 2°	>	
5:31	μοι	>	
5:5	αὐτὸν ἰδών	tr (747 ^{txt})	
5:27	ἀναγκάζειν <i>ἡμ</i> ᾶς	tr	
5:2	Έβοαῖον	των εβοαιων	
5:11	τῶν λογισμῶν	τον λογισμον	
5:13	$\pi a \sigma ilde{\eta}$	$\sigma\eta$ (747*)	
5:13	$\delta\iota$, "	$\delta \iota a$	
5:27	$\dot{\epsilon} \gamma \vartheta i \sigma \tau \eta$	αισχιστη	
5:29	$o\ddot{\ddot{v}} auarepsilon$	$\alpha\lambda\lambda\alpha$ (747 ^{txt})	
5:29	<i>ίερούς</i>	$\iota \varepsilon \varrho \varepsilon \iota \varsigma (747^{txt})$	
5:29	$ au o ilde{v}$	$\tau o (747^{\text{txt}})$	
5:33	οἰκίφομαι	οικτειρομαι	
5:37	εἰσδέξονται	προσδεξονται	

Mss 44 610 3002 were among the last ones to be collated for IV Maccabees. They do not appear in Klauck's list. My initial conclusions in working through the collation books had been that 44 610 3002 comprised a textual group. Our analysis has shown that, while they exhibit affiliations with mss of Klauck's q group, this larger collection of mss appears to resolve into two related groups. Ms 3002 aligns itself with the five mss of his q group that are listed above. Mss 44 and 610 exhibit a substantial degree of affiliation with 107 of his q group, though the levels of agreement between 107 and members of his q group are not insignificant. All in all, then, 44 107 610, which comprise our q1 group, are not as closely related to the mss of our revised q group as they are to one another. As for mss 55 and 747 of our q2 group, the former is identified by Klauck as one of the *codices mixti*, whereas 747* is called simply a Josephus-Handschrift.

6. *m*: without 677 774:¹⁴ 316-317-322-325-391-397-446-457-467-472-473-586-591-592-594-595-596-597-607-617-639-640-656-682-683-686-695-699-713-714-778-782-789 (51/178 readings - 28.65%)

9	pluses.	6	minuses,	13	transi	positions.	2.3	other
_	pruses,	\circ	minimusco,	10	crairs	POSICIOIIS,		Other

Verse	Lemma	Variant
5:10/11	$ au ilde{\eta}arsigma$	+ τοσαντης και
5:11	$lpha\dot{\xi}\iota o u$	+ vovv
5:13	συγγνωμονήσειεν	$+ \alpha \nu$
5:13	$\pi lpha \sigma \eta$	$+ au \eta$
5:14	$To\tilde{v} au ov$	$+ \dot{ovv}$
5:33	έμαντοῦ	+ δοκειν
5:7/8	βδελύττη	$\operatorname{pr} \sigma v$
5:26	init	pr και
5:27	ἀναγκάζειν	$\operatorname{pr} au o$
5:1	τύραννος	>
5:6	$ au a ilde{v} au a$	>
5:13	$\dot{\omega}\varsigma$	>
5:23	auarepsilon	>
5:29	οὐ παρήσω	>
5:38	γάο	>
5:1	μετά – συνέδοων	post $A\nu\tau i o\chi o\varsigma$ tr
5:6/7	έχων χρόνον	$tr (\chi \rho o \nu \omega \nu 597^* 682 778^c)$
5:6/7	μοι δοκεῖς	tr
5:13	παοανομία γινομένη	tr
5:22	ήμῶν ΄΄΄	post φιλοσοφίαν tr
5:23	$\dot{\tilde{\eta}}\delta ov ilde{\omega}v$	et ἐπίθυμιῶν tr
5:23	έκουσίως ύπομένειν	post (24) δικαιοσύνην tr
5:25	ήμῖν συμπαθεῖ	tr

¹⁴ Mss 677 and 774 are not extant in ch. 5.

Verse	Lemma	Variant
5:28	τοῦτον	ad fin tr
5:32	έκφύσα σφοδρότερον	tr
5:35	<i>ίε</i> οωσύνη τιμία	tr
5:37	οί πατέρες / εἰσδέξονται	tr
5:38	δεσπόσεις	post fin tr
5:2	παρεκέλευεν	εκελευσε(ν)
5:4	$\delta \epsilon$	ovv
5:4	$\varepsilon ilde{t} \zeta - d\gamma \varepsilon \lambda \eta \zeta$	εκ του οχλου ανηφ τις
5:4	$\tau \acute{o} - i \epsilon \varrho \epsilon \acute{v} \varsigma$	εκ γενους ιερατικου
5:4	καί 1° – προήκων	προβεβηκως (-βληκως 592*)
	- '	την ηλικιαν
5:4	πλησίον αὐτοῦ	τω αντιοχω
5:5	init – Άντίοχος	ο δε ιδων αυτον
5:8/9	ἀποστρέφεσθαι	αποστοεφειν
5:9/10	ποιήσειν	ποιειν
5:21	ώς δμοίως	ωσαντως (ως σαντως 586)
5:23	ημᾶς ἐ <i>κδιδάσ</i> κει	διδασκει (διδακει 316()) ημας
5:24	ώστε 1°	και
5:24	ἰσονομεῖν	ισοδυναμιαν (εισοδυναμιαν 317)
5:24	<i>ἐ</i> κδιδ [′] άσκει	διδασχέι
5:24	σέβειν μεγαλοποεπῶς	μεγαλοποεπως ευσεβειν
5:27	$\delta \acute{arepsilon}$	ουν εστιν
5:29	$oec{v} auarepsilon$	$\mu\alpha \ (457^*; ov \ \mu\alpha \ 457^c)$
5:30	τά 2° – fin	τηξειας μου τα σπλαγχνα
5:31	νεάζειν	ανανεαζειν
5:33	οἰκτίφομαι – γῆφας	γαο το εμαντου γηρας
	21 712 3	οικτειρω (οικτηρω 699)
5:33	καταλ ῦ σαι	καταλυειν
5:36	γήρως	γηρας
5:38	λόγοις	δια λογων

It will be noted that the percentage of agreement for the m group is considerably lower than the percentages for m1, m2, and m3 given below. It should, however, be remembered that for each group the percentage is an indication of the number of times that all group members agree in attesting variant readings. In that light it is remarkable that unanimity among members of such a large group would occur as many times as it does.

7. m1: 455-585 (112/122 readings - 91.80%)

17 pluses, 11 minuses, 21 transpositions, 63 other

Verse	Lemma	Variant
5:6/7 5:8/9	$ au ilde{\eta} \ au o ilde{v} au o$	+ των + ειναι μοι δοκει

Verse	Lemma	Variant
5:10/11	<i>ἐξυπνώσεις</i>	+ youv
5:10/11	$ au ilde{\eta}arsigma$	$+ \tau o \sigma a v \tau \eta \varsigma$
5:11	ἄξιον	+ vovv
5:13	$\pi lpha \sigma \eta$	$+ au \eta$
5:15	δημηγοφεῖν	+ λεγων
5:23	έκουσίως	+ και αδικιαν
5:25	οἴδαμεν	$+ \delta \varepsilon$
5:27	fin	$+ \eta \mu a \varsigma$
5:29	προγόνων	$+ \mu ov$
5:31	ἄνανδοος	$+ v\pi a \varrho \chi \omega$
5:33	έμαντοῦ	+ δοκειν
5:37	άγνόν	$+ \delta \varepsilon$
5:7/8	βδελύττη	pr σv
5:25	νομοθετῶν	pr και
5:27	ἀναγκάζειν	pr $ au o$
5:1	δ τύραννος	>
5:6	$ au a ilde{v} au a$	>
5:7/8	καλλίστην	>
5:10	$\dot{\varepsilon}\pi i - \tau \iota \mu \omega \varrho i \varrho$	>
5:16	ἀνάγκην	>
5:23	auarepsilon	>
5:23	έκουσίως	>
5:24	δικαιοσύνην – ὥστε 1°	>
5:29	οὐ παρήσω	>
5:31	έγώ	>
5:31	μοι	>
5:1	μετά – συνέδοων	post $Aντίοχος$ tr
5:6/7	ἔχων χοόνον	tr
5:6/7	μοι δοκεῖς	tr
5:13	παοౖανομίᾳ γινομένη	tr
5:16	πεπεισμένοι γόμω	tr
5:17	παρανομεῖν ἀξιοῦμεν	tr
5:18	κατὰ ἀλήθειαν	post $\mu\eta$ tr
5:18	ώς ύπολαμβάνεις	post $\vartheta ilde{arepsilon} ilde{o} ilde{\varsigma}$ tr
5:18	εἶναι θεῖον	tr
5:22	ήμῶν ἑδουᾶν	post φιλοσοφίαν tr
5:23	ήδονῶν 	et ἐπιθυμιῶν tr
5:24	μόνον τόν	tr
5:25	ήμῖν συμπαθεῖ Συζον (παῖο πουσα	tr
5:26	ήμῶν / ταῖς ψυχαῖς τοῦτον	tr
5:28 5:32		ad fin tr
5:34	έχφύσα σφοδρότερον	tr +
	$o\vec{v}\delta\vec{\varepsilon} - \text{fin} / (35) \text{ init} - \lambda \acute{o}\gamma \varepsilon$	tr
5:35 5:37	ίερωσύνη τιμία οί πατέρες / εἰσδέξονται	tr
5:38	οί πατεφες 7 εισσεςονται οὔτε λόγοις	tr
5:38 5:38	ουτε λογοις δεσπόσεις	post έργων tr
5:38 5:1	$ \frac{\partial \varepsilon}{\partial t} \frac{\partial \varepsilon}{\partial t} = 0 $	post fin tr αυτω κυκλοθεν
J.1	$a v i \psi - i m$	αυτω πυπλουεν (πυπλωθεν 455)
		(κοκλώσεν 455) ενοπλων παρεστωτων
		ενολιλών λιάθεο ι ωι ων

Verse	Lemma	Variant
5:2	παρεκέλευεν	εκελευσε(ν)
5:2	$Eetaarrho a ilde{\imath}ov$	των εβραιων
5:2	$\dot{\epsilon}\pi\iota\sigma\pi ilde{lpha}\sigmaartheta$ aι	$arepsilon \pi i \sigma \pi a \sigma a \sigma \vartheta a \iota$
5:4	$\delta arepsilon$	ovv
5:4	εῗς – ἀγέλης	εκ του οχλου ανηφ τις
5:4	$ au \acute{o} - i arepsilon arrho arepsilon \acute{o} arrho \dot{c}$	εκ γενους ιερατικου
5:4	τήν – νομικός	νομικος τη επιστημη
5:4	καί 1° – προήκων	προβεβηχως (-κος 455)
		την ηλικιαν
5:4	$\pi o \lambda \lambda o ilde{\imath} \zeta$	$\pi o \lambda v \varsigma$
5:4	ήλικίαν 2°	φιλοσοφιαν
5:4	παρήχθη	π ϱ οσηχ ϑ η
5:4	πλησίον αὐτοῦ	τω αντιοχω
5:5	$init - Av\tau lo\chi o\varsigma$	ο δε ιδων αυτον
5:5	ἔφη (6) Έγώ	$\varepsilon \varphi \eta \sigma \varepsilon v$
5:6	πρεσβῦτα	$\pi \varrho arepsilon \sigma eta v$
5:6	συμβουλεύσαιμ' ἄν	συμβουλευω
5:7/8	τὴν τοῦδε	τηνδε την
5:8/9	λην τουσε ἀποστρέφεσθαι	αποστοεφειν
5:9/10	ποιήσειν	ποιειν
5:11	τῶν λογισμῶν	τον λογισμον
5:11	τοῦ συμφέροντος	σοι συμφερουσαν
5:12	προσκυνήσας	προσκυνησεις
5:12	οἰκτιρήσεις	οικτιρης (-τειρ. 455)
5:12	σεαντοῦ	εαυτου
5:13	ώς	
5:13	-	071 7050) (51 m 1 58) A m 1
	πάση	πασιν (-σι m1 58) A m1 58 340 577
5:14	<i>ἐποτ</i> ούνοντος	εποτουναντος
5:16	$\epsilon \dot{v}\pi \epsilon i \vartheta \epsilon i a \varsigma$	ϑ εοπει ϑ ει α ς
5:18	καίτοι	και γε
5:18	$\varthetaarepsilon ilde{i}oarsigma$	$\vartheta arepsilon o \vartheta arepsilon v$
5:18	ἄλλως − ἐνομίζομεν	αλλ ωστε νομιζομεν
5:19	$\varepsilon \hat{l}$ – fin	την αμαρτιαν
		ει μιαροφαγησαιμεν
5:20	$\pi a \varrho a v o \mu arepsilon ilde{\imath} v$	αμαρτανειν
5:21	ώς όμοίως	$\omega\sigma av au\omega \varsigma$
5:21	<i>ύπερηφανεῖται</i>	πεοιφοονειται
5:22	μετά	μετ
5:23	ὥστε 1°	$\omega_{\mathcal{S}}$
5:23	έξασκεῖ	εξασκειν
5:24	ἰσονομεῖν	ισονομιαν
5:24	<i>ἐ</i> κδιδ ['] άσκει ὥστε	διδασκετω και
5:24	σέβειν μεγαλοποεπῶς	μεγαλοποεπως ευσεβειν
5:25	μιαροφαγοῦμεν	μιαροφαγησομεν
5:25	γάο – καθεστάναι	θεον κατεστακεναι
	, ,	(καταιστ. 455)
5:25	$\sigma v \mu \pi a \vartheta \epsilon ilde{\imath}$	$\sigma v \mu \pi a \vartheta \omega v$
5:27	$\delta \epsilon'$	ουν εστιν
5:27	^ε πεγγελάσης	επιγελασης
		21.2.7

Verse	Lemma	Variant
5:29	οὔτε	μα
5:30	$\tau \acute{a}$ 2° – fin	τηξειας μου τα σπλαγχνα
5:31	νεάζειν	ανανεαζειν
5:31	τὸν λογισμόν	τω λογισμω
5:33	οἰκτίοομαι – γῆρας	γαο το εμαντον γηρας
		οικτειρω
5:33	$\H{\omega}\sigma auarepsilon$	ως το
5:33	καταλῦσαι	<i>καταλυθησεσθαι</i>
5:34	$\varphi i \lambda \eta$	$\pi \varrho o \sigma \varphi \iota \lambda \dot{\eta}$
5:36	γήρως	γηρας
5:37	εἰσδέξονται	προσδεξονται
5:37	$\varphi o eta \eta \vartheta \acute{\epsilon} v au a$	πτοηθεντα (πτωηθ. 585)
5:38	$ au ilde{\omega} v$	τον
5:38	$\dot{\epsilon}\mu \tilde{\omega} v$	εμον
5:38	λογισμῶν	λογισμον
5:38	λόγοις	δια λόγων
5:38	δεσπόσεις	δεσποτευσης

8. *m2*: 587-738 (63/75 readings - 84.00%)

15 pluses, 7 minuses, 14 transpositions, 27 other

Verse	Lemma	Variant	
5:8/9	τοῦτο	+ ειναι δοχει	
5:10/11	<i>ἐξυπνώσεις</i>	$+ \gamma o v v$	
5:10/11	$ au ilde{\eta}arsigma$	$+ \tau o \sigma a v \tau \eta \varsigma$	
5:11	ἄξιον	+ vovv	
5:11	$ au o ilde{v}$	$+ \sigma o \iota$	
5:13	συγγνωμονήσειεν	$+ \alpha v$	
5:13	$\pi lpha \sigma \eta$	$+ au \eta$	
5:14	$To \tilde{v} \tau o v$	+ ovv	
5:25	οἴδαμεν	$+$ $\delta arepsilon$	
5:33	έμαντοῦ	+ δοκειν	
5:37	άγνόν	$+$ $\delta arepsilon$	
5:7	βδελύττη	$\operatorname{pr} \sigma v$	
5:26	init	pr και	
5:27	ἀναγκάζειν	$\operatorname{pr} au o$	
5:36	γήρως	$\operatorname{pr} au ov$	
5:1	τύραννος	>	
5:6	$ au a ilde{v} au a$	>	
5:16	$\eta \mu ilde{\omega} v$	>	
5:23	auarepsilon	>	
5:23	γάο	>	
5:25	$\gamma \acute{a} \varrho$	>	
5:29	οὐ παρήσω	>	

Verse	Lemma	Variant
5:1	μετά – συνέδρων	post $A\nu\tau i o \chi o \zeta$ tr
5:6/7	έχων χρόνον	tr
5:6/7	μοι δοκεῖς	tr
5:13	παοανομία γινομένη	tr
5:18	εἶναι θεῖον	tr
5:22	$\eta \mu \tilde{\omega} v$	post $\varphi \iota \lambda o \sigma o \varphi \iota a v$ tr
5:23	$\dot{ ilde{\eta}}\delta ov ilde{\omega}v$	et ἐπίθυμιῶν tr
5:25	ήμῖν συμπαθε <i>ῖ</i>	tr
5:26	ήμῶν / ταῖς ψυχαῖς	tr
5:28	τοῦτον	ad fin tr
5:32	έκφύσα σφοδρότερον	tr
5:35	ίερωσύνη τιμία	tr
5:37	οί πατέρες / εἰσδέξονται	tr
5:38	δεσπόσεις	post fin tr
5:1	$lpha \dot{v} au ilde{\omega}$ — fin	κυκλοθεν αυτω ενοπλων
		παρεστηκοτων
5:2	παρεκέλευεν	εκελευσε(ν)
5:2	απογεύεσθαι	απογευσασθαι
5:4	$\delta arepsilon$	ovv
5:4	συναοπασθέντων	αναρπασθεντων
5:4	$\varepsilon \tilde{l} \varsigma - \mathring{a} \gamma \acute{\varepsilon} \lambda \eta \varsigma$	εκ του οχλου ανηο τις
5:4	$\tau \acute{o} - i \varepsilon \varrho \varepsilon \acute{v} \varsigma$	εκ γενους ιερατικου
5:4	καί 1° – προήκων	ποοβεβηκως την ηλικιαν
5:4	ήλικίαν 2°	φίλοσοφιαν
5:4	παρήχθη	$\eta \chi \vartheta \eta$
5:4	πλησίον αὐτοῦ	τω αντιοχω
5:5	$init - Av\tau lo\chi o\varsigma$	ο δε ιδων αυτον
5:6	ποεσβῦτα	$\pi ho arepsilon \sigma eta v$
5:6	συμβουλεύσαιμ' ἄν	συμβουλευω
5:8/9	ἀποστρέφεσθαι	αποστοεφειν
5:9/10	ποιήσειν	ποιειν
5:11	τῶν λογισμῶν	τον λογισμον
5:21	ώς δμοίως	ωσαντως
5:23	ήμᾶς ἐκδιδάσκει	διδασκει ημας
5:23	έξασκεῖ	εξασκειν "
5:24	έχδιδάσχει	διδασχει
5:27	$\delta cute{\epsilon}$	ουν εστιν
5:29	$o\H v au arepsilon$	ου μα
5:30	τά 2° − fin	τη ξειας μου τα σπλαγχνα
5:33	οἰκτίφομαι – γῆφας	γαο το εμαντον γηρας
		οικτειοώ
5:33	καταλῦσαι	καταλυειν
5:38	λόγοις	δια λογων

9. *m3*: 62-542 (66/108 readings - 61.11%)

13 pluses, 7 minuses, 16 transpositions, 30 other

Verse	Lemma	Variant
5:10/11	<i>ἐξυπνώσεις</i>	+ γου <i>ν</i>
5:11	ἄξιον	$+\stackrel{\cdot}{vovv}$
5:13	πάση	$+ au \eta$
5:14	$To\tilde{v}\tau ov$	$+ \dot{ovv}$
5:15	δημηγορεῖν	+ λεγων
5:25	οἴδαμεν	$+$ $\delta arepsilon$
5:27	fin	$+ \eta \mu a \varsigma$
5:31	ἄνανδρος	$+ v\pi a \varrho \chi \omega$
5:33	έμαντοῦ	+ δοχειν
5:37	άγνόν	$+$ $\delta arepsilon$
5:7/8	βδελύττη	$\operatorname{pr} \sigma v$
5:26	init	pr και
5:27	ἀναγκάζειν	$\operatorname{pr} \tau o$
5:1	τύραννος	>
5:6	$ au a ilde{v} au a$	>
5:13	$\dot{\omega}\varsigma$	>
5:16	$\eta \mu ilde{\omega} v$	>
5:23	auarepsilon	>
5:29	οὐ παρήσω	>
5:31	έγώ	>
5:6	έχων χρόνον	tr
5:6	μοι δοχεῖς	tr
5:13	παρανομία γινομένη	tr
5:17	παρανομεῖν ἀξιοῦμεν	tr
5:18	ώς ὑπολαμβάνεις	post $\vartheta ilde{\imath io \varsigma}$ tr
5:18	εἶναι θεῖον	tr
5:22	$\eta\mu ilde{\omega}$ v	post φιλοσοφίαν tr
5:23	ήδονῶν	et $\dot{\varepsilon}\pi i \vartheta v \mu i \widetilde{\omega} v$ tr
5:23	έκουσίως ύπομένειν	post (24) $\delta ι κ α ι ο σ \acute{v} ν η v$ tr
5:25	$\eta \mu ilde{\imath} v \sigma v \mu \pi a \vartheta \dot{arepsilon} ilde{\imath}$	tr
5:26	ἡμῶν / ταῖς ψυχαῖς	tr
5:28	τοῦτον	ad fin tr
5:32	έκφύσα σφοδρότερον	tr
5:35	ίερωσύνη τιμία	tr
5:37	οί πατέρες / εἰσδέξονται	tr
5:38	δεσπόσεις	post fin tr
5:1	$a \dot{v} au ilde{\phi}$ – fin	κυκλοθεν αυτω ενοπλων
		παρεστηκοτων
5:2	παρεκέλευεν	εκελευσε(ν)
5:4	$\delta arepsilon$	ovv
5:4	$\varepsilon \tilde{l} \varsigma - \dot{a} \gamma \dot{\varepsilon} \lambda \eta \varsigma$	εκ του οχλου ανηφ τις
5:4	$\tau \dot{\eta} v - \dot{v}o\mu \dot{\iota} \dot{\kappa} \dot{\delta} \varsigma$	νομικος τη επιστημη
5:4	καί 1° – προήκων	προβεβηκως την ηλικιαν
5:4	ήλικίαν 2°	φιλοσοφιαν
5:4	$\pi a \varrho \eta \chi \vartheta \eta$	$\pi \varrho o \sigma \eta \chi \vartheta \eta$
5:4	πλησίον αὐτοῦ	τω αντιοχω

Verse	Lemma	Variant
5:5	$init - Av\tau lo\chi o\varsigma$	ο δε ιδων αυτον
5:6	συμβουλεύσαιμ' ἄν	$\sigma v \mu eta o v \lambda arepsilon v \omega$
5:8/9	ἀποστρέφεσθαι	αποστρεφειν
5:9/10	ποιήσειν	ποιειν
5:21	ώς δμοίως	$\omega\sigma av au\omega \varsigma$
5:23	έξασχεῖ	εξασχειν
5:24	ὥστε 1°	$\kappa a \iota$
5:24	ἰσονομεῖν	ισονομιαν
5:24	έ <i>κδιδάσκει</i>	διδασχει
5:24	σέβειν μεγαλοποεπῶς	μεγαλοποεπως ευσεβειν
5:27	$\delta ec{arepsilon}$	ουν εστιν
5:27	<i>ἐπεγγελάσης</i>	επιγελασης
5:29	$oec{v} auarepsilon$	$\mu \alpha$
5:30	τά 2° − fin	τηξειας μου τα σπλαγχνα
5:33	οἰκτίρομαι – γῆρας	γαο το εμαντον γηρας
	7 / 7 / 7	οιπτειρω
5:33	$\H{\omega}\sigma auarepsilon$	ως το
5:33	καταλῦσαι	καταλυειν
5:34	$\varphi i \lambda \eta$	$\pi \varrho o \sigma \varphi \iota \lambda \eta$
5:36	μιανεῖς	μιανει
5:36	γήρως	γηρας
5:38	λόγοις	$\delta \iota a \ (> 542^*) \ \lambda o \gamma \omega v$

In Klauck's edition the mss of m3 are designated ℓ . We have checked m3 against all other groups in ch. 5 (including L, to which it is alleged by Klauck to be related), and affiliation with non-m groups is minimal, whereas with other m groups it is substantial. In ch. 5, the level of agreement for m3 is 61.11% (66/108 readings), whereas in ch. 18 it is 1.81% (1/55). In the collation book *Vorbemerkungen* for this ms, it is stated that 542 "geht bis 11,5 mit 62 zusammen." So what this means is that, in the latter part of IV Maccabees, mss 62 and 542 no longer constitute a group.

¹⁵ Vol. 1, p. 4. After the note the name Dörrie appears.

10. m3-747^{c/mg}: 16 62-542-747^{c/mg} (13/110 readings - 11.82%)

3 pluses, 1 transposition, 9 other

Verse	Lemma	Variant
5:10/11	έξυπνώσεις	+ yovv
5:13	$\pi lpha \sigma \eta$	$+ \overset{\cdot}{\tau} \eta$
5:7/8	βδελύττη	$\operatorname{pr} \overset{\cdot}{\sigma v}$
5:13	παρανομία γινομένη	tr
5:4	$\delta ec{\epsilon}$	ovv
5:4	$\varepsilon \tilde{l} \zeta - \dot{a} \gamma \dot{\varepsilon} \lambda \eta \zeta$	εκ του οχλου ανηφ τις
5:4	καί 1° – προήκων	προβεβηκως την ηλικιαν
5:4	ήλικίαν 2°	φίλοσοφιαν
5:4	παρήχθη	$\pi o o \sigma \eta \chi \vartheta \eta$
5:4	πλησίον αὐτοῦ	τω αντιοχω
5:5	$init - Av\tau io\chi o\varsigma$	ο δε ιδων αυτον
5:21	ώς δμοίως	$\omega\sigma av au\omegaarphi$
5:29	οὖτε	$\mu \alpha$

Though $747^{c/mg}$ goes with m3, it involves the non-continuous text of a corrector. Thus there are fewer relevant readings to be found in this witness than in the other mss of the m3 group.

11. codices mixti without 332 930:¹⁷ 46 52 58 340 577 668 690 741 771 773 (1/256 readings - 0.39%)

1 other

Verse	Lemma	Variant	
5:11	auῶν λογισμῶν	τον λογισμον	

Although these mss exhibit minimal affiliation with one another as a complete group, there are significant levels of agreement between certain pairs: for example, mss 46 and 52 (37/44 readings – 84.09%).

¹⁶ In the *Vorbemerkungen* section of the first volume of collations for IV Maccabees (p. 7a), the observation is made that ms 747 contains many corrections and marginal notes "die den Text einer anderen Rezension bieten". It is also stated that a reading that is situated between the lines of the original text is designated 747° and one that is located in the margin is designated 747^{mg}, but that in both cases these readings are produced by the same hand. After the comments about this ms, Brauckmann is identified as the collator and Rabbow is named as the checker (p. 7c).

¹⁷ Mss 332 and 930 are not extant in ch. 5.

C. Whole Group Readings in IV Maccabees 5

To this point we have identified the readings that each whole group attests in ch. 5. We have also distinguished and sorted the different kinds of readings that are involved (e.g., pluses, minuses, transpositions, and other types including lexical and grammatical variants). This kind of analysis is part of the process of assessing the textual character of each group. Below we list these different kinds of readings according to the number of groups that attest each one, beginning with one group all the way to six groups. This facilitates the elucidation of a book's textual history by highlighting the relationships that exist among the groups.

Verse	Lemma	Variant	Group(s)	#
5:4	ἀγέλης	+ των εβοαιων	L	1
5:15	δημηγορεῖν	+ και λεγειν	L	1
5:36	γήρως	$\operatorname{pr} arepsilon \pi \iota$	L	1
5:1	κυκλόθεν ἐνόπλων	tr	L	1
5:18	$ ilde{\eta} v \ ilde{\eta} \mu ilde{\imath} v$	tr	L	1
5:19	$\varepsilon \bar{l} v a \iota$	post $\tau a \acute{v} \tau \eta v$ tr	L	1
5:4	$ au ilde{\omega} v$	τοις	L	1
5:6/7	σου 2°	+ ×ai	9	1
5:18	$arepsilon \dot{l}$	+ ×aı	q	1
5:6/7	ἔχων	>	q	1
5:34	$o \mathring{v} \delta \acute{arepsilon}$	$ov\delta$	9	1
5:4	έ <i>κ – ἀγέλης</i>	>	q1	1
5:27	$\delta\pi\omega\varsigma$ – fin	>	q1	1
5:7/8	τὴν τοῦδε	$ au\eta u\deltaarepsilon$	q 1	1
5:10/11	$ au ilde{\eta}\varsigma$	+ τοσαντης και	m	1
5:38	$\gamma \dot{\alpha} \varrho$	>	m	1
5:24	^λ σονομεῖν	ισοδυναμιαν	m	1
5:6/7	$ au ilde{\eta}$	$+ \tau \omega v$	m 1	1
5:8/9	$\tau o \tilde{v} \tau o$	+ ειναι μοι δοκει	m 1	1
5:23	έκουσίως	+ και αδικιαν	m 1	1
5:29	προγόνων	$+ \mu ov$	m 1	1
5:25	$vo\mu o \vartheta arepsilon au ilde{\omega} v$	pr και	m 1	1
5:7/8	καλλίστην	>	m 1	1
5:10	έπί – τιμωρία	>	m 1	1
5:16	ἀνάγκην	>	m 1	1
5:23	έκουσίως	>	m 1	1
5:24	δικαιοσύνην – ὥστε 1°	>	m1	1
5:31	μοι	>	m 1	1
5:16	πεπεισμένοι νόμφ	tr	m 1	1
5:18	κατὰ ἀλήθειαν	post $\mu \acute{\eta}$ tr	m 1	1
5:24	μόνον τόν	tr	m 1	1
5:34	$o\vec{v}\delta\vec{\epsilon} - \text{fin / (35) init } - \lambda \delta \gamma \varepsilon$	tr	m1	1

Verse	Lemma	Variant	Group(s)	#
5:1	$a \mathring{v} au \tilde{\phi}$ – fin	αυτω κυκλοθεν (κυκλωθεν 455)	m1	1
		ενοπλων παρεστωτων		
5:2	$\dot{\epsilon}\pi\iota\sigma\pi\tilde{a}\sigma\vartheta a\iota$	$\varepsilon \pi \iota \sigma \pi a \sigma a \sigma \vartheta a \iota$	m 1	1
5:4	πολλοῖς	$\pi o \lambda v \varsigma$	m 1	1
5:5	έφη (6) Έγώ	εφησεν	m 1	1
5:7/8	τὴν τοῦδε	$ au\eta u\deltaarepsilon au\eta u$	m 1	1
5:11	τοῦ συμφέροντος	σοι συμφερουσαν	m 1	1
5:12	προσκυνήσας	$\pi \varrho o \sigma \varkappa v v \eta \sigma arepsilon \iota \varsigma$	m 1	1
5:12	οἰκτιφήσεις	οικτιοης (-τειο. 455)	m 1	1
5:12	$\sigma arepsilon a v au o ilde{v}$	$\varepsilon av au ov$	m 1	1
5:13	$\dot{\omega}\varsigma$	$o\tau\iota$	m 1	1
5:13	$\pilpha\sigma\eta$	πασιν (-σι m1 58) A m1 58 340 577	m 1	1
5:16	$\epsilon \dot{v}\pi \epsilon i \vartheta \epsilon i a \varsigma$	$\vartheta \varepsilon o \pi \varepsilon \imath \vartheta \varepsilon \imath a \varsigma$	m 1	1
5:18	καίτοι	και γε	m 1	1
5:18	$\vartheta arepsilon ilde{i}o \varsigma$	θεοθεν	m 1	1
5:18	ἄλλως	αλλ ωστε	m 1	1
	– ἐνομίζομεν	νομιζομεν		
5:19	$\varepsilon i - fin$	την αμαρτιαν ει	m 1	1
5.17	Ct IIII	μιαροφαγησαιμεν	m 1	1
5:20	παρανομεῖν	αμαρτανειν	m 1	1
5:21	ύπερηφανεῖται	πεοιφοονειται	m 1	1
5:23	ωστε	ως	m 1	1
5:24	εκδιδάσκει ὥστε	διδασκετω και	m 1 m 1	1
5:25			m 1 m 1	1
5:25	μιαροφαγοῦμεν γάρ – καθεστάναι	μιαροφαγησομεν		1
5:25	, -	θεον κατεστακεναι (καταιστ. 455)	m 1	1
5:25	$\sigma v \mu \pi a \vartheta arepsilon ilde{\imath}$	$\sigma v \mu \pi a \vartheta \omega v$	m 1	1
5:31	τὸν λογισμόν	τω λογισμω	m 1	1
5:33	καταλῦσαι	καταλνθησεσθα ι	m 1	1
5:37	$\varphi o eta \eta \vartheta \acute{\epsilon} v au a$	πτοηθεντα (πτωηθ. 585)	m 1	1
5:38	$ au ilde{\omega} v$	au o v	m 1	1
5:38	$\dot{\tilde{\epsilon}}\mu\tilde{\omega}v$	εμον	m 1	1
5:38	λογισμῶν	λογισμον	m 1	1
5:38	δεσπόσεις	δεσποτευσης	m1	1
5:8/9	τοῦτο	+ ειναι δοχει	m2	1
5:11	$ au o ilde{v}$	$+ \sigma o \iota$	m2	1
5:23	γάο	>	m2	1
5:25	γάο	>	m2	1
5:2	ἀπογεύεσθαι	$a\pi o\gamma arepsilon v\sigma a\sigma artheta a\iota$	m2	1
5:4	συναρπασθέντων	$ava\dot{\varrho}\pi a\sigma \vartheta arepsilon v au \omega v$	m2	1
5:4	$\pi a \varrho \widetilde{\eta} \chi \vartheta \eta$	$\eta \chi \partial \widetilde{\eta}$	m2	1
5:29	οὔτε	ου μα	m2	1
5:5	δ	>	Lq	2
5:21	$\dot{\omega}_{\mathcal{S}}$	>	Lq	2
5:27	$\dot{\epsilon}\chi \vartheta \iota \sigma au \eta$	αισχιστη	Lq	2

Verse	Lemma	Variant	Group(s)	#
5:4	Έλεάζαρος	ελεαζαρ	L q1	2
5:38	οὔτε λόγοις	post $\tilde{\epsilon}\varrho\tilde{\gamma}\omega v$ tr	L m 1	2
5:14	<i>ἐποτ</i> ούνοντος	εποτουναντος	L m1	2
5:33	<i>∞στε</i>	+ με	q q1	2
5:26	$\delta \acute{arepsilon}$	δ	q q1	2
5:36	γήρως	pr του	q m2	2
5:36	μιανεῖς	μιανει	q1 m3	2
5:31	νεάζειν	ανανεαζειν	m m1	2
5:13	συγγνωμονήσειεν	+ av	m m2	2
5:23	ημᾶς ἐκδιδάσκει	διδασκει (διδακει	m m2	2
3.23	ηριας εποτοασίτει	$316()) \eta \mu a \varsigma$	2	_
5:23	έχουσίως ύπομένειν	post (24)	m m3	2
	,	δικαιοσύνην tr		
5:24	ὥστε 1°	каі	m m3	2
5:10/11	$ au ilde{\eta} arsigma$	+ τοσαντης	m1 m2	2
5:6	ποεσβῦτα	ποεσβυ	m1 m2	2
5:15	δημηγοφεῖν	+ λεγων	m1 m3	2
5:31	άνανδρος	$+ v\pi a \varrho \chi \omega$	m1 m3	2
5:31	ἐγώ	>	m1 m3	2
5:18	ώς ύπολαμβάνεις	post $\vartheta \varepsilon \widetilde{\imath} o \varsigma$ tr	m1 m3	2
5:17	παρανομεῖν ἀξιοῦμεν	tr	m1 m3	2
5:4	τήν – νομικός	νομικος τη	m1 m3	2
	, , ,	επιστημη		
5:4	$\pi a \varrho \dot{\eta} \chi \vartheta \eta$	$\pi \varrho o \sigma \eta \chi \vartheta \eta$	m1 m3-747 ^{mg}	2
5:24	ἰσονομεῖν	ισονομιαν	m1 m3	2
5:33	<i>ὥστε</i>	ως το	m1 m3	2
5:34	$\varphi i \lambda \eta$	προσφιλη (προσφιλει	m1 m3	2
3.34	φικη	455)	m1 m3	_
5:16	$\eta \mu \tilde{\omega} v$	>	m2 m3	2
				_
5:1	$a v au ilde{\omega}$ – fin	κυκλοθεν αυτω	m2 m3	2
		$arepsilon vo\pi \lambda \omega v$		
		παρεστηκοτων		
5:30	μου 2°	>	L q q1	3
5:25	μου 2 κόσμου		L q q1 L q q1	3
	· · · · · · · · · · · · · · · · · · ·	νομου		
5:13	ώς	>	L m m3	3
5:2	$Eeta arrho a ilde{i}ov$	των εβοαιων	q q1 m1	3
5:22	μετά	$\mu arepsilon au$	q q1 m1	3
5:37	εἰσδέξονται	προσδεξονται	q q1 m1	3
5:27	fin	$+ \eta \mu a \varsigma$	q1 m1 m3	3
5:27	<i>ἐπεγγελάσης</i>	επιγελασης	q1 m1 m3	3
5:1	μετά – συνέδοων	post Άντίοχος tr	m m1 m2	3
J.1	μετα – συνευψων	Post Artioxog u	m mi m∠	5

Verse	Lemma	Variant	Group(s)	#
5:4	τό – ἱεϱεύς	εκ γενους ιερατικου	m m1 m2	3
5:24	σέβειν μεγαλοποεπῶς	μεγαλοποεπως ευσεβειν	m m1 m3	3
5:29	$oec{v} auarepsilon$	μα	$m(457^*; ov \mu \alpha 457^c) m1 m3-747^{mg}$	3
5:14	Τοῦτον	+ 000	m m2 m3	3
5:1	τύραννος	>	m m2 m3	3
5:24	ἐκδιδάσκει	διδασκει	m m2 m3	3
5:33	καταλῦσαι	καταλυειν	m m2 m3	3
5:10	<i>ἐξυπνώσεις</i>	+ youv	m1 m2 m3- 747°	3
5:25	οἴδαμεν	$+\delta \varepsilon$	m1 m2 m3	3
5:37	άγνόν	$+\delta \varepsilon$	m1 m2 m3	3
5:18	εἶναι θεῖον	tr	m1 m2 m3	3
5:26	ήμῶν /	tr	m1 m2 m3	3
3.20	ταῖς ψυχαῖς	CI	m1 m2 m3	J
5:26	init	pr και	L m m2 m3	4
5:4	ήλικίαν	φιλοσοφιαν	L m1 m2 m3- 747 ^{mg}	4
5:11	τῶν λογισμῶν	τον λογισμον	q q1 m1 m2	4
5:36	γήρως	γηρας	q1 m(457*) m1 m3	4
5:6	συμβουλεύσαιμ' ἄν	συμβουλευω	q1 m1 m2 m3	4
5:11	ἄξιον	+ νουν	m m1 m2 m3	4
5:13	πάση	$+ \tau \eta$	m m1 m2 m3	4
5:6	$ au a ilde{v} au a$	>	m m1 m2 m3	4
5:23	auarepsilon	>	m m1 m2 m3	4
5:6/7	ἔχων χοόνον	tr (χοονων 597* 682 778°)	m m1 m2 m3	4
5:6/7	μοι δοκεῖς	tr	m m1 m2 m3	4
5:13	παοανομία γινομένη	tr	m m1 m2 m3-747 ^c	4
5:22	$\eta \mu ilde{\omega} v$	post φιλοσοφίαν tr	m m1 m2 m3	4
5:23	ήδονῶν	et $\vec{\epsilon}\pi \imath \vartheta v \mu \imath \tilde{\omega} v$ tr	m m1 m2 m3	4
5:25	ησονων ήμῖν συμπαθεῖ	tr	m m1 m2 m3	4
5:28	$\tau o \tilde{v} \tau o v$	ad fin tr	m m1 m2 m3	4
5:32	έχφύσα σφοδοότεοον	tr	m m1 m2 m3	4
5:35	εεφοσά σφοσμοτεμον ίερωσύνη τιμία		m m1 m2 m3	4
5:35	ιερωσυνη τιμια οί πατέρες /	tr tr	m m1 m2 m3 m m1 m2 m3	4
	εἰσδέξονται	LI.	111 111 111 111J	4
5:2	παφεκέλευεν	$\varepsilon \kappa \varepsilon \lambda \varepsilon v \sigma \varepsilon(v)$	m m1 m2 m3	4
5:4	$\delta ec{\epsilon}$	ovv	m m1 m2 m3- 747 ^{c et mg}	4

Verse	Lemma	Variant	Group(s)	#
5:4	εἶς – ἀγέλης	εχ του οχλου ανηο τις	т т1 т2 т3-747 ^{тд}	4
5:4	καί 1° – ποοήκων	προβεβηκως (-κος 455; -βληκως 592*) την ηλικιαν	$m \ m1 \ m2 \ m3-747^{\rm mg}$	4
5:4	πλησίον αὐτοῦ	τω αντιοχω	m m1 m2 m3-747 ^{mg}	4
5:5	$\operatorname{init} - A v \tau i o \chi o \varsigma$	> 586*; ο δε ιδων αυτον	m(586 ^{c pr m}) m1 m2 m3-747 ^{mg}	4
5:8/9	ἀποστρέφεσθαι	αποστοεφειν	m(778*) m1 m2 m3	4
5:9/10	ποιήσειν	ποιειν	m m1 m2 m3	4
5:21	ώς δμοίως	ωσαντως (ως σαντως 586)	m m1 m2 m3-747 ^{mg}	4
5:30	$\tau \acute{a}$ 2° – fin	τηξειας μου τα σπλαγχνα	m m1 m2 m3	4
5:33	οἰκτίφομαι – γῆφας	γαο το εμαντου γηρας οικτειοω (οικτηρω 699)	m m1 m2 m3	4
5:33	έμαντοῦ	+ δοκειν	L m m1 m2 m3	5
5:7/8	\dot{eta} δελύττ η	pr σv	L m m1 m2 m3-747 ^c	5
5:27	ἀναγκάζειν	pr τo	L m m1 m2 m3	5
5:29	οὐ παρήσω	>	L m m1 m2 m3	5
5:27	$\delta ec{\epsilon}$	ουν εστιν	$L\ m\ m1\ m2\ m3$	5
5:38	λόγοις	$\delta\iota\alpha$ (> 542*) λογων	q1 m m1 m2 m3	5
5:23	ἐξασκεῖ	εξασχειν	L q q1 m1 m2 m3	6
5:38	δεσπόσεις	post fin tr	L q1 m m1 m2 m3	6

D. Manuscripts and Groups Most Likely to Attest the Original Text

Two primary textual groupings are evident in Greek IV Maccabees. One of these consists of the witnesses that usually attest the original text of IV Maccabees: A S V L q q1 q2 46 52 58 340 577 668 690 741 771 773. The other is comprised of those that Klauck calls the Menologienhandschriften, which we have divided into three subgroups — m, m1, and m2, and of Klauck's ℓ group, which we have assigned the designation m3.

The kinds of manuscript and group alignments that occur in IV Maccabees can be illustrated in a passage like 5:4, where the following scene is described: $\pi o \lambda \lambda \tilde{\omega} v \delta \dot{\varepsilon} \sigma v v a \varrho \pi a \sigma \vartheta \dot{\varepsilon} v \tau \omega v \varepsilon \tilde{\iota} \zeta \pi \varrho \tilde{\omega} \tau \sigma \zeta \dot{\varepsilon} \varkappa \tau \tilde{\eta} \zeta \dot{\varepsilon} \gamma \dot{\varepsilon} \lambda \eta \zeta \dot{\varepsilon} v \dot{\varepsilon} \mu \alpha \iota \varkappa \varepsilon \dot{\zeta} \alpha \varrho \sigma \zeta$,

τὸ γένος ἱερεύς, τὴν ἐπιστήμην νομικὸς καὶ τὴν ἡλικίαν προήκων καὶ πολλοῖς τῶν περὶ τὸν τύραννον διὰ τὴν ἡλικίαν γνώριμος, παρήχθη πλησίον αὐτοῦ. "When many persons had been rounded up, one man, Eleazaros by name, was brought as first of the company before him. He was a priest by birth, a lawyer by profession, advanced in age and known to many in the tyrant's court on account of his age." Most of the extant witnesses of the first grouping described above attest the second occurrence of ἡλικίαν in the assertion that Eleazaros was known to many in Antiochus's court on account of his age. The remaining witnesses support a reading that says that it was because of his φ ιλοσο φ ία (love of knowledge, philosophy) that he was so well known.

ήλικίαν A(ηλικειαν) S V q q1 q2(747 txt) 46 52 340 577 668 741 771 773 Sy] φιλοσοφιαν (φιλοφιαν 397*) L m m1 m2 m3-747 mg 58 690

It will be noted that the L group, all four m groups, and two of the codices mixti attest the variant. This reflects one kind of scenario that can occur in IV Maccabees, with L and various members of the codices mixti from time to time going with the m tradition in attesting a variant to the original text. Which of these readings takes priority in this context is debatable. On the one hand, it might be argued that $\eta \lambda \iota \kappa \iota a v$ represents an early error in the ms tradition occasioned by the occurrence of the word earlier in this same verse. On the other hand, Eleazaros's $\varphi \iota \lambda o \sigma o \varphi \iota a$ might be regarded as a more logical basis for his reputation among Antiochus's courtiers than his advanced age. In the final analysis, it would seem to me that $\eta \lambda \iota \kappa \iota a v$ is attested by those witnesses that I usually conclude have the original text in situations in which there is more than one extant reading, leads me to opt for its priority.

E. Comparing Editions

We can illustrate how the forthcoming Göttingen Septuaginta edition of IV Maccabees will compare with the earlier editions of Rahlfs and Swete by paralleling the respective texts and apparatus entries for a verse selected at random, i.e., 5:37.

NETS:

"My fathers will receive me as pure, as one who does not fear your tortures even unto death."

¹⁸ This translation is a slightly modified version of Stephen Westerholm's rendering of IV Maccabees 5:4 in A. Pietersma / B. G. Wright (edd.), A New English Translation of the Septuagint and the Other Greek Translations Traditionally Included Under That Title (NETS), Oxford/New York 2007.

¹⁹ H. G. LIDDELL / R. SCOTT / H. S. JONES, A Greek-English Lexicon: With a Revised Supplement, Oxford 91996, s.v. φιλοσοφία.

Rahlfs:

άγνόν με οἱ πατέρες εἰσδέξονται μὴ φοβηθέντα σου τὰς μέχρι θανάτου ἀνάγκας.

Swete:

άγνόν με οἱ πατέρες προσδέξονται, μὴ φοβηθέντα σου τὰς μέχρι θανάτου ἀνάγκας.

Göttingen Septuaginta:

άγνον με οί πατέρες εἰσδέξονται μὴ φοβηθέντα σου τὰς μέχρι θανάτου ἀνάγκας.

Rahlfs' apparatus:

 $\alpha \gamma \nu o \nu$] + $\delta \varepsilon S^c$ | $\varepsilon \iota \sigma \delta \varepsilon \xi o \nu \tau \alpha \iota$] $\pi \rho o \sigma \delta \varepsilon \xi$. A S^c

Swete's apparatus:

 $\alpha \gamma \nu o \nu$] + $\delta \varepsilon \kappa^{c.a}$ | $\varepsilon \iota \sigma \delta \varepsilon \xi o \nu \tau \alpha \iota \kappa^* (\pi \varrho o \sigma \delta \varepsilon \xi. \kappa^{c.a})$

Göttingen Septuaginta apparatus:

άγνόν] + δε S^c m^{-682^*} 7^{14} m1 m2 m3 58 | με] μον 771; > 682^* | οἱ πατέρες / εἰσδέξονται] tr m m1 m2 m3 58 | εἰσδέξονται] εισδεξωνται 542; δεξονται 682; προσδεξονται A S^c q q1 m1 46 52 55 58 340 668 741 747 771; + το πνευμα μη 771 | φοβηθέντα] -θεντες 457; -θεντας $q1^{-107}$ 591-617- 656^* - 778^* 771; πτοηθεντα (πτωηθ. 585) m1 | μέχρι] -ρις 317-594-683-695-713 | θανάτον] litt θ in ras 738

F. Forthcoming Developments regarding Database Functionality

The database and computer program that has enabled us to generate the kinds of information presented in this paper continues to be developed. We plan to refine and augment this technology so as to facilitate even more sophisticated and comprehensive analysis of the textual data. This will result in improved and new functionality in the following areas, which will further enhance this tool's usefulness for the preparation of a critical edition in the Göttingen Septuaginta series:

- 1. Creating an online user interface that improves our capacity to edit and manage the data.
- 2. Calling up readings attested only by a specified selection of mss in order to confirm the identity of ms groups.
- 3. Sorting out types of variants for a ms group with a view to identifying its textual character.
- 4. Mapping trends in a ms group's strength and documenting any instances in which group affiliation ceases (e.g., m3 = 62542).
- 5. Reconstructing the text of any given ms.
- 6. Generating the complete critical text with apparatus.

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