Torah on the Heart: Literary Jewish Textuality Within Its Ancient Near Eastern Context

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This essay examines evidence for the interplay of memory recall and written technology in ancient Israel and surrounding cultures.¹ The focus is on recovering the processes by which ancient Israelite authors wrote and revised long-duration texts of the sort found in the Hebrew Bible. Thus, this essay does not address the process by which display, administrative, or other types of texts were written, however important those genres were. Instead, the primary emphasis is on what we can learn from other cultures, epigraphy, manuscripts, and references within the Hebrew Bible itself about the context in which such texts transmitted over long periods of time were composed and revised, texts that might be broadly described as literary-theological in emphasis (such as the Epic of Gilgamesh, Ptah-Hotep, Homer, the Bible—with "theology" used in its very broadest sense).

Remarkably little has been written on this topic in the several centuries of biblical scholarship, especially given how much scholars have wanted to say about the stages through which the Hebrew Bible reached its present form. On the one hand, since the 1700s, scholars have developed many theories, some quite compelling, about sources and layers of redactional revision in the texts of the Pentateuch/Torah (Genesis - Deuteronomy) and other parts of the Hebrew Bible. On the other hand, very few have explored concretely how such sources were created or revised, other than to posit some general sort of transition from oral traditions/cycles to written compositions/sources/redactions. Moreover, the few studies that have addressed the specific processes of writing, however worthwhile they are (see Blau 1894; 1902; Breasted 1930; Eissfeldt 1962; Martin 1958; Wilson and Wills 1982; Tov 2004; and others) have focused almost exclusively on what might be termed the "material technology" of writing: the creation and preparation of different sorts of scrolls, pens, and ink, and various sorts of scribal markings. Even now, with a resurgence of focus on the "scribal" context of the Hebrew Bible in some recent and important publications (see Schniedewind 2004 and van der Toorn 2007), much more emphasis

¹ This essay combines review of past work and a report on work in progress. Portions of this research were presented in English at the California Biblical Colloquium on February 15, 2008 and at the Rice Conference on Orality and Literacy on April 14, 2008. My thanks go to participants in each forum for responses that helped me improve upon the work that they heard. Portions of the first part of this essay on general dynamics of orality and written textuality were presented in much earlier form at several lectures in Germany in the spring of 2005 (now published as Carr 2006). Unless otherwise indicated, the translations included in this essay are my own.

has been put on the historical contexts of writing on the one hand and on exigencies of scroll technology on the other—for example, how long a scroll lasts.

However important those dimensions of composition are, this essay focuses on another issue that might be termed the "cognitive technology" of textual composition and revision. As will be evident in the first part of the essay, this focus comes from some parallel themes that have emerged in studies of textuality in Mesopotamia, Egypt, and Greece. Together, these themes emerging largely independently in these different disciplines—point to education and socialization of leading elites as a primary context, if not the primary context, for the transmission of the kind of long-duration literature seen in the Bible, as well as literature such as Gilgamesh, the Enuma Elish, or Homer. By "long-duration literature" is meant texts—usually viewed in some way as particularly archaic/ancient, inspired/holy, and obscure/inaccessible that are passed from generation to generation, transcending whatever their original time-bound contexts might be and being consumed by generation after generation. "Education/enculturation" is not necessarily training in a "school" that we might recognize today with a professional teacher and separate building, but more a familial or pseudo-familial arrangement where a "father" taught his sons (or students seen as "sons") the ancient tradition in a part-time or apprentice-like setting alongside other activities. As will be discussed shortly, the "elites" thus educated are not just textual professionals, for example "scribes" as most conceive that word, but priestly, governmental, high-level military, bureaucratic, and other elites as part of larger-scale city-states, empires, and similar formations.

The comparative argument for these assertions is presented in much more detail in my book *Writing on the Tablet of the Heart: Origins of Scripture and Literature* (2005). In it I argue that the main point of the textual production and reception process in the educational/enculturational context was not to incise and revise texts on parchment, papyrus, or tablet. Rather, the aim was to "incise" such texts word for word on the minds of the next generation. A form of ancient literacy was learned, but the whole process was much more than mere learning of letters and words. It was the appropriation of an entire vocabulary of episodes, poetic lines, narrative themes, and implicit values. Written copies of texts served a subsidiary purpose in this system—as numinous symbols of the hallowed ancient tradition, as learning aids, and as reference points to insure accurate performance.

One particular emphasis of the book was on the importance of overcoming typical dichotomies between "orality" and "literacy" that continue to dominate many studies of ancient literature. Though scholars decades ago deconstructed the idea that there was a "great divide" between orality and literacy, a remarkable number of high quality publications still work with a strong distinction between the two, or at least a "continuum" with orality at one end and literacy at the other. Certainly, there are meaningful distinctions to be made between different modes of textual transmission, and for certain genres of texts—such as receipts (written) or exclusively oral legends (oral)—the distinction is still important. Nevertheless, I maintain that such distinctions obscure more than they help in the study of literature like the Bible, for the Bible was formed and used in an oral-written context. On the one hand, biblical texts and similar texts in other cultures were "oral" in the sense that they were memorized, and—in certain cases—publicly performed. On the other hand, written copies of these texts were used in this process to

help students accurately internalize the textual tradition, check their accuracy and correct it, and/ or as an aid in the oral presentation of the text.

We can better imagine this process through looking at how written musical scores function in the training and performance of music. Most musicians never progress to the point where they can read a complex musical score "by sight." Instead, as a student of music one learns to read musical scores, and then gradually learns and performs progressively more difficult pieces of music. Sometimes, of course, a student practices such written music to the point where she or he can perform it by heart. Nevertheless, even if a musician has learned a piece well, he or she will often find it helpful to have a copy of the music in view to remind him or her of sections they would otherwise forget. In addition, especially in the time before electronic recording was possible, the written score was a primary way by which musical works were handed down from one generation to another accurately. In all times the written musical score functions as a learning, performance, and transmission aid in a primarily aural endeavor: making music.²

In *Tablet of the Heart*, I argue that the primary focus of both orality and literacy in the use of texts like the Bible was cognitive and social. Though there are reported performances of texts in select contexts for broader audiences—such as the reading of the Torah by Ezra or pan-Hellenic performances of epic poetry—the main context for their transmission and revision over time was the process of internalizing texts, word for word, within the context of ancient education. The following four quotes illustrate the cross-cultural importance of this process, each coming from a different one of the above-mentioned contexts:

[T]he whole vocabulary of the scribal art, I will recite for you, I know it much better than you (Edubba dialogue 1, 59 as translated by Sjöberg 1975:164).

You are, of course, a skilled scribe at the head of his fellows, and the teaching of every book is incised on your heart (Satiric Letter II, 2-3 following the rendering of Fischer-Elfert 1986:94).

[M]ay you engrave it on the tablets of your mind (Aeschylus, *Prometheus Bound*, 788)

Write [my commandments/teachings] on the tablets of your heart (Prov 3:3; 7:3)

The examples could be multiplied, but this is a sampling of four quotes from four oral-written cultures where people used writing to memorize and perform predominantly oral works. The four quotes come from, respectively, Mesopotamia, Egypt, Greece, and ancient Israel.

Using those quotes as an entry point, let us turn now for a brief review of literary-educational systems in Mesopotamia, Egypt, and Greece. This will serve as a prelude to a preliminary report on work that I have done over the last few years on text-critical evidence for oral-written preservation and revision of ancient literature, particularly in ancient Israel.

² For a nuanced discussion of the different sorts of roles that written music and practice play in different kinds of music, see Finnegan 1988 and 1989.

The Comparative Argument

Mesopotamia

I start with Mesopotamian education in a bilingual corpus of Sumerian and Akkadian works. Put briefly, there are multiple pointers in Mesopotamian literature to a writing-supported process of memorization. For example, there are some parodic pictures of ancient education, one of which includes the quote given above about "reciting the whole scribal art" or another where a fictive student in a dialogue claims that his teacher only had to show him one sign, and he could recite several others in the list from memory (Vanstiphout 1997:92, lines 19-20 and 34-35). One tablet has 639 lines from five compositions preserved in minute script. Even with the minuscule writing on the tablet, there was not enough space on the postcard-sized tablet for all five compositions, so just the first line of various stanzas was given, with the reader expected to provide the rest from memory (Waetzoldt 1989:36).

That said, there are certainly ways in which Mesopotamian education and literature diverge from counterparts elsewhere. In particular, Mesopotamian education is distinguished from other forms of education by its predominant use of clay tablet technology, unusually intensive use of educational lists, and the fairly wide variety of genres of texts used later in education. Though Egypt, Israel, and Greece each used lists to a limited extent, especially in early stages of education, Mesopotamian education—as documented in particular through "type 2" tablets that combined successive educational exercises on the same artifact—featured a massive series of lists of cuneiform signs and words at the outset of the educational process, before students progressed to what we might call "wisdom works" and then on to love songs, myths, and so on.³ Notably, these lists were among the most prominent parts of Mesopotamian education as it was practiced outside Mesopotamia in the second millennium. During that period we find remnants of such lists in Egypt, Syro-Canaan, Hatti, Elam, and various other loci across the Near East.⁴ In addition, such examples of "peripheral" cuneiform education appear to have focused on a limited group of more advanced literary texts, the Epic of Gilgamesh being among the most prominent. A variety of archaeological finds show that such cuneiform education occurred in city-states of ancient Canaan just before the emergence of ancient Israel, a training that insured the internalization of Mesopotamian lists and portions of works such as Gilgamesh by officials in towns such as Jerusalem (Horowitz, Oshima, et al. 2002).

Egypt

The Egyptian system, of course, also lies close to Israel, and likewise played some role in the emergence of early Israelite textuality, as is evident in the Israelite appropriation of Egyptian terms for writing implements, Egyptian numerals, and the Egyptian mode of writing right to left. It is the Egyptian system that was the source of the quote, "You are, of course, a skilled scribe at the head of his fellows, and the teaching of every book is incised on your heart" (Fischer-Elfert

³ The preeminent study taking advantage of this data is Veldhuis 1997.

⁴ For a survey, see Carr 2005:47-61.

1986:94). Many other witnesses to oral-written education could be added, such as the oft-quoted comment in the Instruction of Merikare, "Do not kill one whose excellences you know, with whom you once chanted the writings" or the conclusion to the Instruction of Ptah-Hotep, which talks of how "Memory of [the teaching's maxims] will not depart from the mouths of humankind, because of the perfection of their verses" (Parkinson 1997:51).

There are a number of indications that Egypt, like Mesopotamia, had an oral-written process of education that focused on internalization and socialization of youths for elite roles. Egyptian educational literature includes frequent calls to memorize the teachings of the written texts (Posener 1951; Brunner 1957:74-76; Schlott 1989:69; McDowell 1996:607; Parkinson 2002:116-17). Practice copies of Egyptian instructional texts often include red markings to aid in recitation and internalization of memorizable blocks. Even the Egyptian word for "read," *šdy*, means "read aloud," pointing to the interrelationship of both writing and orality in the educational internalization process (Morenz 1996:43-52).

Overall, the textual-educational system in Egypt is distinguished from that in Mesopotamia by several features. As suggested before, there was far less focus on educational use of lists, with lists used only to a limited extent beginning in the New Kingdom period. Moreover, Egyptian education featured a far greater focus on use of wisdom instructions in education. Though there is some use of texts from other genres, such as the Hymn to the Inundation or the Prophecy of Neferti, the dominant texts in each period of Egyptian education were instructions attributed to great sages from ancient periods.⁵

One important way that the textual cultures of Egypt and Mesopotamia was similar is the following: they both used words for "scribe" to label people who had completed education. This similarity, however, has misled many scholars to isolate these cultures as "scribal" as opposed to supposedly more egalitarian cultures such as Greece. What is often overlooked in such comparisons is the fact that the term "scribe" in Egypt and Mesopotamia functioned similarly to that of "college graduate" in our context. It did not mean that the person was a textual professional, though that was often the case. In many if not more other instances, "scribes" in Egypt and Mesopotamia worked as priests, bureaucrats, military officials, courtiers, advisers, and so on. "Scribe" was a badge of graduation that allowed you to perform such elite roles in both Mesopotamia and Egypt. It didn't necessarily mean you spent most of your time writing and reading.⁶ In this sense the focus in some recent literature on the "scribal" context of the formation of biblical literature is potentially misleading, at least insofar as it might lead some to think that all biblical texts were produced by full-time writing professionals.

Greek Textuality (Ancient and Hellenistic)

Greece, in contrast to the other cultures discussed so far, does not call its elites "scribes," and Greece uses an alphabetic writing system. On this basis many have drawn sharp distinctions between education and literacy in Greece as compared with so-called "scribal" systems in Egypt

⁵ For more survey and literature, see Carr 2005:63-83.

⁶ For Mesopotamia, see Michalowski 1987:62; Vanstiphout 1995:5, 7-8; Veldhuis 1997:143-44 and Gesche 2001:14-16. For Egypt, see Janssen and Janssen 1990:67-68 and Baines and Eyre 1983:66-71.

and Mesopotamia. But in fact the picture is not so clear. Early estimates of high literacy in the Greco-Roman world have been cast in doubt by William Harris's work (especially 1989). And recent studies have likewise questioned the supposed ease of alphabetic reading systems (see Davies 1986). At least as it was learned in the ancient world, you were taught alphabets through "word images" no less numerous or counter-intuitive than Egyptian hieroglyphs. Moreover, Greek students were to memorize—at least in theory—a vast bulk of Homeric and other verse.

We see reflections of this idea in the quote given above, "may you engrave it on the tablets of your mind" (Aeschylus, *Prometheus Bound*, 788) and other similar quotes in Greek literature. For example, we see multiple references—often satirical—to the memorization of Greek literature in Aristophanes and Euripides, and Plato refers to memorization in multiple contexts as well, such as where he has the "Athenian" describe education where students are given reading lessons in a "great number of poets" and required to "learn them by heart" (*Laws* 810e-11a).

Generally, the perishability of Greek writing materials means that we have few student exercises, aside from a handful of abecedaries—alphabet practice—found on broken pottery. Otherwise, we are dependent on whole works that were transmitted over time as part of classical education. Nevertheless, as if to compensate, we have a new type of data largely missing from above-discussed cultures: artistic representations of teaching and reading on sixth to fifth-century vases, including the famous Douris cup 2285 in Berlin. That image has been persuasively interpreted as a youth standing before his teacher, reciting a text of which the teacher held a copy on his lap. The text has been internalized by the student, while the written copy is used as a control to insure accurate learning.

In addition, this image and other vase representations of school scenes often have lyres on the walls, supplementing other indicators that Greece—like Mesopotamia and possibly Egypt—used the medium of music to write texts on the hearts of students (some Mesopotamian texts have musical notations, and the red marks in Egyptian seem to have been, in part, semi-musical). Music functions like the indelible marker of ancient education—a tool used to help students memorize vast quantities of material. If one is in doubt about the feasibility of a student memorizing such huge quantities of material, one need only consider the ability of a teenager to memorize thousands of lines of popular music through listening to such music on a digital player.

Greek literature also includes another pointer to the process of memorization: explicit discussion of the training of memory and means toward that end. This includes reference to certain compositional devices used by both authors and students to compose/remember an easily memorizable text. One of these devices is the acrostic, which—among other things—helps a student in the difficult task of keeping the lines of a poem in proper order. Another such compositional/memory device is the chiastic pattern, which likewise aids in ordering. Both devices are seen not just in Greece, but also in other cultures that similarly focus on cognitive internalization of literary texts.

Once we move to Greek education in the Hellenistic period, we have a new range of data, particularly from Greek education in Egypt. The dry conditions of that country allowed the preservation of many Greek school exercises, used in the education of those who studied Greek literature in order to qualify to be a part of the Hellenistic administration. Furthermore, we have a few Greek school books from Hellenistic Egypt. Like the above-mentioned "type 2" exercises

from Mesopotamia, they provide clues to the sequence of education in Hellenistic Egypt. Interestingly, as in Mesopotamia, a student in Hellenistic Egypt would start by reading, writing, and memorizing lists—this time of the alphabet and alphabetized lists of names and words. Next came gnomic "wisdom"-like material, and the students spent the rest of their education on more advanced exercises with such wisdom material along with memorization of portions of Homer (above all) and other core parts of Greek literature.

Pre-Hellenistic Israel and the Hebrew Bible

This data from other cultures, much better documented than that of ancient Israel because of a combination of larger-scale and more widespread preservation of remains (such as tablets or manuscripts preserved in the Egyptian desert), provide a far better starting point for study of textuality in ancient Israel than present-day or recent analogies. Where much biblical scholarship has been dominated by unconscious models drawn from print culture, these ancient cultures—however diverse—show the absolutely central role of the mind—especially the learning/memorizing/composing mind—in the formation and revision of ancient literary-theological texts transmitted over generations. The more clarity we have that long-duration, literary-theological texts in other cultures were transmitted as part of an oral-written process of education and memorization, the more the burden of proof lies on someone who wants to argue that ancient Israel is the great exception.

Nevertheless, there is no need to argue that Israel is the great exception, however much biblical scholarship (with its orientation to the holy canon) often has wanted to maintain just that. Instead, it turns out that this model of textuality amidst oral-written enculturation/education correlates well with data both inside and outside the Hebrew Bible for the existence and importance of similar processes of socialization of elites through a process of oral-written internalization of ancient texts.

To be sure, any such textual-educational system in Israel was on a smaller scale than some of those systems discussed above. Moreover, like those systems, Israel probably had few if any recognizable "schools." Instead, education happened in the family or in a pseudo-familial context, probably largely on an apprentice-like model. Both epigraphic and biblical evidence show that some people—virtually all of them officer-class or above—did learn writing and used it extensively. Archaeology, for example, provides a useful supplement to biblical evidence, since digs have turned up an increasing number of abecedaries and other early school exercises from the period of ancient Israel. Indeed, we actually have more such evidence for the case of ancient Israel than we do for the case of ancient Greece. We should remember that ancient Israelite education/formation, like other such systems, was almost certainly oral as well as written, perhaps even oral primarily in many instances. As a result, the focus was not on learning to read and write. Those were only tools.

With those qualifications, the above-discussed model of oral-written education in a familial setting proves unusually illuminating in looking at the peculiar mix of data in the Hebrew Bible regarding the production and reception of texts. Examples of such data include texts from Proverbs, quoted before, about writing on the tablet of the student's heart (Prov 3:3; 7:3), or counterparts to these texts in Deuteronomy 6 and 11 now focused on the Mosaic Torah

(Deut 6:6-9; 11:18-21), or oft-cited texts from Isaiah that speak of sealing Isaiah's alternative "Torah" on the hearts of his son/students (Isa 8:16-18; 30:9-11), various references to the memorization of written "songs" in ancient Israel (see the Song of Moses; Deut 31:19, 22; 32:44-46), the promise in Jeremiah that God will write the new covenant on the heart of Israel (Jer 31:33-34), Ezekiel's "eating the scroll" as an image of internalization of a written message (Ezek 2:9-3:3), mention of God's Torah being written on the inmost parts of the Psalmist in Psalm 40:9, and many, many other reflections of oral-written education in the writings of the Hebrew Bible.⁷ And this does not begin to encompass the evidence for such oral-written education in Ben Sira, Qumran materials, Pseudepigrapha, Josephus, Philo, and other Second Temple sources.⁸

To be sure, there is more emphasis in the biblical tradition on "hearing" than on the "writing" and "reading" of biblical texts, let alone the education of students in such texts. Nevertheless, this biblical emphasis on "hearing" and "speaking" must be put in context. The point was not writing and reading texts written on parchment or papyrus, the point was writing the texts of the ancient tradition "on the hearts" of the student, having them "hear" and internalize them. Therefore, we should not be surprised at the elusive way in which written texts feature in many ancient Israelite discussions of learning. This is a contrast to today's writing- and print-focused educational culture. When we look for educational enterprises in the ancient world, most scholars are predominantly focused on written texts. For ancient cultures such as Israel such copies of texts were aids to memorization and numinous symbolic tokens of tradition. Within this oral-primary culture, even the texts themselves primarily thematized hearing and remembering.

Manuscript Evidence for the Role of Memory in Transmission of Texts

That said, there is another way in which ancient Israelite writing can be used as a way of uncovering the memorization and internalization process by which biblical texts were formed: analysis of text-critical and other variants in the transmission of biblical literature. In a seminal article penned in 1930, Milman Parry noted that past studies of classics had been hampered by a model that presupposed that Homeric epics had been created and transmitted through a purely literary process of writing and copying texts. Such scholars aimed to reconstruct the earliest written text of Homer through eliminating various errors that occurred through careless copying by ancient scribes. In response, Parry (1930:75-76) objected:

How have they explained the unique number of *good* variant readings in our text of Homer, and the need for laborious editions of Aristarchus and of the other grammarians, and the extra lines, which grow in number as new papyri are found?⁹

⁷ Much of the most important evidence is surveyed in Carr 2005:122-61.

⁸ Again, see Carr 2005:201-85 for more detail.

⁹ Reprinted in Parry 1971:268. See also his discussion of some such variants (1930:112-14; rpt. 1971:297-98) of the essay and his further comments (1932:46-47; rpt. 1971:361).

Parry went on to elaborate on the idea that memorized and performed texts exhibit a different sort of variation from written traditions that are transmitted purely through graphic copying. The latter sort of traditions will show variations that are often the result of visual errors of copyists—graphic variants: a skipped line, misinterpreted letters, and so on. The lists of such errors are prominent in almost any text-critical handbook. Typically the result of such a copying error is a text that is garbled, where at least one or the other variant does not make sense. But Parry noticed that the earliest manuscripts of Homer are characterized by another sort of variation, one where both variants make sense: *good* variants (emphasis in Parry's original). Moreover, he noted how dynamic the tradition was, again pointing to a process of free updating and adaptation rather than copying. These indicators—preserved in the written records of Homeric verse—pointed to an earlier or concomitant process of memorization and recitation.

Parry's comments were preliminary. He was working from hunches about what might constitute markers of orally transmitted texts. Yet his suggestions coincide in a remarkable way with an equally seminal study in another discipline published just two years after his article (based on studies done years prior): Frederic Bartlett's experimental psychological study Remembering (1932). In the process of observing his subjects' results in reproducing texts, Bartlett observed some of the sorts of variation that Parry intuitively saw as characteristic of orally transmitted traditions. One set of Bartlett's experiments focused on changes introduced by a single individual as he or she attempted repeated recall of a text over ever greater periods of time. Though the variation was greater than in the Homeric manuscripts, one thing was common: Bartlett's students produced variant versions of the tradition that made sense, indeed they often transformed the tradition so that it made more sense to them. Bartlett (1932:84) termed this processing of the tradition in memorization the "effort after meaning." In another series of experiments, Bartlett studied "serial reproduction," that is, reproduction of a variety of sorts of texts down a chain of different persons. In some ways the changes were similar to those seen in repeated reproduction of a text by the same individual: abbreviation, loss of specific names and numbers, rationalization. Nevertheless, depending on their genre, many such texts underwent massive transformations, at least initially in the process. They were radically abbreviated and sometimes completely reversed. Certain kinds of texts or parts of texts often survived. For example, students radically revised virtually all parts of one story given to them, but often remembered one striking line in it: "Lawn tennis has often been described as a mutual cocktail" (ibid.:150-54).

Building on these experiments, Bartlett argued for the essentially reconstructive character of memory. The recall seen in Bartlett's subjects was not a sort of blurry reflection of an exact image of a text. It was not as if each person remembered 10-100% of the exact words of a given text. Rather, the sort of variation seen in both repeated and serial reproduction reflected how each person built his or her recalled version of a text out of what they understood of a text. The result of this "effort after meaning," especially when multiple people engaged in this sense-making process, was radical transformation. Yet Bartlett also found that this transformation process had limits, limits often reached within three or four reproductions of a given story by different subjects. Once a story had reached a certain form among the tradents, it often did not change much. For example, a fifteen-line paragraph presenting an argument about the modification of the species is abbreviated by the third stage to nine successive versions quite close to the

following two-line summary: "Mr. Garlick says isolation is the cause of modification. This is the reason that snakes and reptiles are not found in Ireland" (Bartlett 1932:121-35). It was as if the readers had adapted this and other texts to their expectations and memory structures so that they reached a relatively fixed form.

Though Bartlett's experiments produced higher variation than that seen in the early Homeric manuscripts mentioned by Parry, subsequent memory research has discovered a number of real-life strategies that social groups use to preserve oral tradition with less variation. For example, using poetic form to compose a text aids in the recall of that text. Someone reciting a poem knows that the correct text must follow a certain rhyme, meter, and/or other poetic device. Therefore, the poetic form of Homer and many other traditions aids in the recall of those traditions. In addition, many societies undergird the memorization of texts through linking them to music, so that a performer can match the correct text with the given music. Oral tradents in many cultures transmit texts of highly familiar genres, made up of familiar formulae and/or other literary elements. Whereas Bartlett had his students memorize a Native American story completely outside their tradition and frame of reference, a Homeric rhapsode or his contemporary equivalent could guide his reproduction of a given tradition by following the generic and other constraints that he knew through acquaintance with the tradition.¹⁰

Indeed, Parry was one of the earliest and most influential scholars to identify the importance of such elements in oral transmission. His study of both Homeric and Yugoslavian epic argued that oral tradents reconstructed such traditions by building on their extensive repertoire of rhythmic formulae and other poetic structures. Furthermore, Parry, Lord, and others argued that "accuracy" of such recall was redefined in such situations. Such reciters do not have electronic means to verify whether or not a given performance matches another one word-forword. Most performers do not aim for such reproduction in any case. Their virtuosity was measured by their mastery of formulae, tropes, and outlines of the epics, along with an ability to produce a masterful whole out of them.

Thus, even though Homeric rhapsodes, Yugoslav bards, and other native performers can produce texts with less variation than Bartlett's students, such real-life textual virtuosos cannot and do not aim for absolute verbatim accuracy. Rather, both they and their audiences know when a given performance varies excessively from what they consider the key formulaic, generic, and other constraints of the tradition. In this way Bartlett's experiments in serial reproduction failed to reflect the communal dimension of real-life situations of serial transmission of oral tradition. In Bartlett's single-line series of student reproductions, there was no way for multiple knowers/hearers of a tradition to correct mistakes made at a given stage. Once a crucial part of a given story was lost by one student, that part could not be reconstructed by others later in the chain. But in actual oral transmission, a given performance is heard by others who share knowledge of the tradition. Performers can correct each other, and an audience can respond negatively if a part deemed essential is left out. This network of reinforcing processes is not and cannot be focused on verbatim accuracy. Nevertheless, it can prevent some of the more radical shifts seen in Bartlett's experiments with students who were trying to memorize texts in artificial situations.

¹⁰ For an excellent summary of a range of psychological and anthropological studies bearing on textual recall, see Rubin 1995.

Even so, the early manuscript tradition of Homer shows a level of agreement that surpasses anything that would be achievable through purely oral transmission—even a process reinforced by poetry, music, and other oral tactics. Empirical studies of recall—both of supposed examples of "photographic"/eidectic memory and of societies claiming total recall of their oral traditions—have not been able to document human ability to recall extensive tracts of text without the reference aid of written texts. In a series of studies done in the 1980s, Ian Hunter argued that the human brain does not retain the capacity to memorize more than fifty words without the aid of written or other memory aids (Hunter 1984; 1985). And though anthropologists have discovered some cases of virtual verbatim recall of ritual and/or musically accompanied texts, these cases are isolated and feature the memorization of relatively brief texts. The main example of possible verbatim recall of more extensive tradition is the Hindu Vedic tradition, but unfortunately its early, exclusively oral transmission is not documented.

This has implications in interpreting the data seen in early Homeric manuscripts. Though Parry and others documented numerous examples of variation in lines or words of the Homeric corpus, the bulk of the lines parallel each other closely in a way that resembles transmission that must be undergirded in some way by writing. Thus the variants reflect a possible ongoing process of reproducing the tradition in memorized (or partially memorized) form, but the process of memorization is undergirded by writing-supported training and/or correction. This supposition is strengthened by the fact that the corpus is far larger than can be transmitted verbatim in exclusively oral form. The few documented examples of verbatim transmission in exclusively oral contexts focus on short texts. But the Homeric corpus comprises thousands of lines. Huge swaths of text in that corpus are verbally parallel, while the areas of variation are limited.

Thus, in the case of ancient textual materials such as Homeric epic or the Bible, we must contend with a mix of oral and written dynamics. To the extent that they were copied, they will manifest the sorts of verbal agreement and graphic variation seen in literary transmission. Yet to the extent that exemplars of the tradition or parts of the tradition were reproduced from memory, we will also see the kinds of variation typical of recall of textual material in human memory: substitution of synonymous terms, radical adaptation of the tradition, and so on. In what follows, these phenomena will be referred to as "memory variants," thus distinguishing them from the sorts of variants created through copying, "graphic variants," as well as from variants more typical of dictation, "aural variants."

Study of Memory Variants in the Humanities (Especially the Ancient Near East)

In the years since Parry and Bartlett's seminal work, scholars in a number of branches of humanities have found such "memory variants" in manuscript traditions, even if they did not use that term. West's (1967) and Apthorp's (1980) work found many similar "good variants" in early Homeric manuscripts, along with other larger-scale variations, such as harmonization, typical of manuscripts transmitted through memory. Sisam (1946; 1953), Baugh (1959; 1967), Duggan (1976), Olsen (1984), Allen (1984), Doane (1994), Zumthor (1972), and others have found similar phenomena in medieval and early modern European manuscripts. Such manuscripts paralleled each other over extended sections, yet they included or omitted minor words, varied in

use of prepositions, substituted synonyms of words for each other, inflected words differently, varied in spelling of words in common, and occasionally featured minor and more significant variation in word order or larger sections. We even see similar evidence arising in musicology, such as work by Hendrik van der Werf (1972), who found that the manuscript tradition for medieval *chansons* features the sorts of variation characteristic of transmission in memory: substitution of equivalent wording, omission of words, lines, and stanzas, variation in spelling, word order, and even stanza order.

These are not the types of errors produced by a scribe who visually copies the original manuscript, producing a graphic parallel to the earlier exemplar. Instead, they are the kinds of variation typical of a scribe reproducing a text, at least in part, through memory. The qualification "in part" is important, because it is easily possible that a scribe might both consult a manuscript visually and reproduce other parts of it from memory, even when copying it virtually from beginning to end. We will see a probable example of this phenomenon from the Dead Sea Scrolls later in this essay. Moreover, different contexts are important for the appearance of memory variants. Within later Jewish tradition, for example, reference manuscripts were produced through a careful process of graphic copying (accompanied by singing!), but Jewish scholars still internalized biblical tradition and often would cite it from memory—rather than copying it—in producing other works, thus producing memory variants.

Before moving further into evidence from Judaism and older Israel-Judah, a brief survey of work on memory variants in ancient cultures is in order, with a focus on the cultures of the Mediterranean and Ancient Near East discussed previously. One thing that emerges in such a survey is how isolated the different studies are. Very few studies build on earlier ones, and discussion is usually confined to a given sub-discipline. For example, already in 1937, Axel Volten published a study of the Egyptian Instruction of Anii that surveyed a series of errors typical of oral transmission, such as synonyms, unexplained loss of suffixes, substitution of similar sentences. Though he does not appear aware of Parry's early article on oral-cognitive transmission of Homeric epic, Volten argued that a process of memorization would explain both these errors and some rearrangements of sections that happens in the textual tradition. Forty years later Günter Burkard published a book that was, in some ways, a response to Volten's work but no more conscious of the broader range of research on forms of transmission over previous decades in classics and literary studies. Burkard (1977) argued that memory errors were more characteristic of the earliest stage of tradition, such as in the early Instruction of Ptah-Hotep, rather than being predominant in later instructions, such as Anii. Still, he found many short-term memory errors in the transmission of Old and Middle Kingdom instructions, many of which revealed New Kingdom students attempting the sort of "seeking after meaning" in older texts that was seen in Bartlett's experiments. Most significantly, Burkard was not arguing against the role of memory in transmission of traditions, but against an exclusively oral model. According to his theories, students used written exemplars to memorize the texts, but sometimes produced copies or portions of copies from memory. This oral-written model would explain the mix of graphic and memory errors in the manuscripts he studied.

Assyriology does not have, as far as I know, extensive studies of oral-written variants. Nevertheless, the transmission history of many Mesopotamian texts, including memory variation from edition to edition of those texts, is unusually well documented because the clay tablets on

which they were written survived well. Many scholars of those texts have commented in passing on manuscript variants that probably result from memory or oral transmission. For example, in dialogue with Scandinavian-school scholars who posited an exclusively oral transmission history of biblical texts up to the post-exilic period, Geo Widengren noted how Mesopotamian *šu-ila* prayers preserved some variants that indicated interaction between orality and textuality (1959:219). Louis Levine notes in passing some synonymous and other variants that show Assyrian scribes treating inscriptions with striking freedom (1983:72), and Bendt Alster briefly comments on how variants of the Lugalbanda tradition reflect an oral background (1990:63-64). Finally, Niek Veldhuis drew directly on Rubin's and other work on memory to theorize about memory dynamics surrounding the early transmission of early Mesopotamian lexical lists (1997:131-41), while also noting the diminishment of such memory dynamics in the later transmission of Mesopotamian literature (2003).

The above is just a sampling of observations of a much broader phenomenon. The Mesopotamian tradition contains a number of examples of multiply transmitted traditions. Virtually any time one compares parallel versions of cuneiform texts, as in—for example—Jeffrey Tigay's parallel comparisons of verbally parallel portions of the Gilgamesh epic, one finds plentiful examples of the sorts of memory variants discussed above: word order shifts, substitutions of lexical equivalents, minor shifts in grammar or prepositions, rearrangement of lines, and so on (1982:58-68, 218-22). In addition, I surveyed and discussed a set of such variants in the Descent of Ishtar tradition in my *Writing on the Tablet of the Heart* (2005:42-45).

Ancient Israel did not have as extensive a scribal apparatus as either Egypt or the Mesopotamian kingdoms, and aside from the Bible, little literature from Israel or surrounding areas has survived. Israelite scribes wrote on more perishable materials than their Mesopotamian counterparts, and the climate of Israel meant that virtually no papyri from the ancient Israelite period survived (in contrast to Egypt where more papyri did survive). Nevertheless, as we will see, there is some data with which one can work, and this has been explored by a few scholars. A key early example is Helmer Ringgren's classic 1949 study of parallel versions of biblical poems. In this study he compared the parallel versions of several psalms and prophetic poems, classifying the variants by whether they were likely graphic errors, conscious alterations or updating, dictation, or other errors. Another, more recent example would be Raymond Person's article, "The Ancient Israelite Scribe as Performer," where he examines several examples of synonymous variants in the various versions of the Isaiah-Hezekiah narrative and builds on Doane's work on the "scribe as performer" (see above) to argue that such variants show the "oral mindset" of ancient Israelite scribes (1998; rpt. in rev. form in Person 2002:83-97). He also suggests that the sort of variation seen in the Qumran 1QIsa^a scroll may reflect the same sort of oral mindset.

Manuscript Evidence for the Oral-Written Transmission and Revision of Ancient Semitic Traditions

Building on these studies, I have undertaken a comprehensive study of written traditions transmitted in parallel in the ancient Near East, with a particular focus on literary-theological

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traditions from Mesopotamia and ancient Israel. Building on work by Jerrold Cooper, Jeffrey Tigay, and others (especially Cooper 1977; Tigay 1982; George 2003), I have compiled parallel versions of the major Mesopotamian epics and inscriptions for which we have multiple editions, analyzed Abba Ben David's biblical parallels (1972) and some of Primo Vannutelli's parallel version of the biblical histories (1931), and produced parallel versions of the major Qumran documents, such as the community rule, 4QRP, the temple scroll, and divergent early editions of biblical books, such as that found in 4QSam^a. The following is a report on this work in process. Three preliminary findings are worth mention.

First, the phenomenon of memory variation is prevalent throughout these traditions. Though I am not myself an Assyriologist and thus am not equipped to evaluate such variants in Mesopotamian traditions, I can say that Tigay's lists of memory variants, along with numerous shifts in the order of lines in Mesopotamian texts, suggest that Mesopotamian texts were transmitted, at least in part, through a writing-supported process of internalization. On the biblical side, the Israeli linguist Tamar Zewi found numerous instances where Samuel-Kings and Chronicles vary in both directions in whether active or passive verbs are used to express similar content (2006:240-41). This and several similar cases involve syntactic variation that does not appear to be linked to diachronic shifts in the Hebrew language or differences in the semantic content. Moreover, they are not the kinds of shifts that typically occur in an environment focused exclusively on graphic copying of texts. Rather, they are examples—surveyed by a linguist without apparent investment in any model for the creation of this literature—of cognitive transformations that occur in texts transmitted, at least in part, through memory. 11 Many more examples of such transformations have been uncovered by my survey of parallel editions of biblical correspondences and parallel editions at Qumran. Indeed, on the basis of this survey, it appears that the number of probable memory variants is far greater than that of probable graphic or aural variants.

The second major phenomenon that I have observed in this survey of documented revision of ancient texts is an overall "tendency toward expansion." In Mesopotamia, we see evidence of this expansion in the Sumerian king list, Hammurapi decree, and the Anzu, Atrahasis, and Gilgamesh epics. In ancient Israelite literature the relative dating of documented cases is more debated, but some of the clearer cases of documented expansion of otherwise verbatim parallels can be found in the proto-Samaritan Pentateuchal manuscripts, 4QRP, longer versions of Esther and Daniel, and probably the Jeremiah tradition. In some cases, such as the elimination of the barmaid's speech in the Gilgamesh tradition or the omission of large swaths of

¹¹ These examples could be multiplied through survey of work by biblical scholars, including scholars building cases for specific models of the relationship of the traditions of Chronicles and Samuel-Kings. For example, though Steven McKenzie (1984) repeatedly posits all kinds of graphic and ideological reasons for variation between Chronicles and Samuel-Kings in his detailed study of the relationship between the traditions, he also acknowledges a number of cases where the alternatives are so semantically similar that the originality of either reading is difficult to determine. One of several instances occurs in the versions of Solomon's prayer, where McKenzie (1984:150) says that it is impossible to determine whether the reading of the Masoretic Text of 1 Kgs 8:29 (לילה after יומם) is original, or the reading of 2 Chr 6:20 and the Old Greek of 1 Kgs 8:29 (לילה Occurs before the OG of 2 Kgs 10:10) notes that either לשלמה (the OG of 2 Kgs 10:10) could be original.

the Samuel-Kings tradition in Chronicles, later tradents do seem to have abbreviated, rather than expanded, their precursor tradition in some respects. Moreover, as many have observed, the royal inscription tradition in Mesopotamia often abbreviated narrations of earlier regnal years in favor of a consistent focus on the most recent one. Nevertheless, each such case has specific circumstances that explain the exception. The overall trend toward preservation and expansion of reproduced ancient traditions is clear.¹²

The third overall trend, again noted by some previous scholars, is that of harmonization, usually harmonization of one part of a given text to another section of what is understood to be the same text. Years ago, Cooper (1977) wrote an article on harmonization of Gilgamesh's two dreams about Enkidu in the Standard Babylonian version of the Gilgamesh epic, and Tigay and Hans Jürgen Tertel have added a number of other examples of harmonization in the Gilgamesh and other major Mesopotamian epics (Tigay 1982:93-100, 224-29; Tertel 1994:33-36, 43-54). Similarly, the proto-Samaritan and Temple scroll traditions feature other examples of harmonization of biblical laws (Tigay 1985). Sometimes memory variants in these harmonizations can help us almost see into the scribe's workroom as he compiles the scroll. For example, starting in line 11 of the fifty-first column, the temple scroll reproduces large swathes of the Deuteronomic law in sequence, starting with the law of the courts in Deut 16:18-20. Aside from the law of the king, these later columns of the temple scroll have laws from Deuteronomy as the base text, which are then supplemented by fragments from Leviticus, Numbers, and other parts of Deuteronomy. One pattern that starts to emerge in these laws is the presence of relatively more memory variants in the portions of Scripture added from other loci in Deuteronomy and Leviticus.

For example, when Deut 22:6 is part of the base text reproduced in the Qumran Temple Scroll¹³ (65:4), it is virtually identical with the Masoretic Text (with the exception of an added π), but in 52:6, where Deut 22:6 is drawn on selectively to enrich another passage in Deuteronomy, the wording varies more.¹⁴ Similarly, in 11QT 2:1-15 (conflating Deut 7:25 in 2:7-11); 52:7-21 (conflating Deut 17:5 in 55:21), and 11QT 66:8-16 (adding material from Lev 20:21, 17; 18:12-13), the Temple scroll follows the base text much more closely than the biblical material that is being used to enrich or expand that base text. This may indicate that the author(s) of these portions of the Temple Scroll often graphically consulted a copy of Deuteronomy in producing the main text, but depended more on memory to enrich that main text with biblical

¹² It should also be noted that psychologists such as Bartlett (1932) and anthropologists have documented an opposing tendency toward abbreviation of traditions known/learned in exclusively *oral* form, a tendency leading toward focalization of central and unusual elements and elimination of elements deemed irrelevant. Furthermore, there are numerous examples of later authors drawing in a highly selective way on earlier traditions in the process of producing entirely new texts. Such appropriation of content is particularly characteristic of appropriation of material across a language barrier, as in the appropriation of narrative elements from earlier Sumerian Gilgamesh traditions in the Old Babylonian Gilgamesh epic. In all these cases the later tradition draws on the contents of the earlier tradition and often fragments of wording from such traditions, but the tradent does not reproduce long stretches of the precursor tradition and the resulting text lacks verbal agreement across long stretches. The later tradition may be longer at some points or shorter in others, but it does not come under the heading of this "trend toward expansion." It is not a reproduction of a written tradition known/learned in written form.

¹³ Hereafter Qumran Temple Scroll will be abbreviated as 11QT.

¹⁴ The different level of preservation of 22:6b was pointed out in Yadin 1983 [Hebrew orig. 1977]:233.

passages distant from the pericope being reproduced. This matches what we know about the technology of scroll reading. Scrolls are unwieldy, and it is much easier to consult a scroll graphically when reading or copying it from beginning to end, than to skip around, looking for isolated citations.

Overall, these documented cases of transmission of tradition provide invaluable glimpses into the minds of the tradents, showing how they regarded and processed the texts passed down to them from others. The massive verbatim agreement between these examples testifies to the probable use of writing to support the transmission of these traditions, since exclusively oralcognitive tradition produces wider forms of variety than most examples mentioned here. Yet the presence of memory variants testifies to the occasional use of memory to transmit the traditions as well. In some cases such memory variants may have been produced when scribes reproduced an entire text from memory, having mastered it as students. Yet other dynamics may have been involved as well. In the case of the temple scroll and other texts as well we see a particular density of memory variants in places where a scribe inserts elements of another text—possibly from memory—into a broader context, such as elements of laws from Leviticus into a context in Deuteronomy. In other cases a scribe may draw on memory of another text to clarify the one being reproduced, replacing an archaic or otherwise odd term in the given text with a more contemporary or understandable term from its parallel. And then there may just be cases where memory variants in a section of text, such as the Ten Commandments, may betray a scribe's use of memory to reproduce that portion of text, while using graphic modes to reproduce others.

Concluding Reflections on Broader Principles and Methodological Implications

One feature these three phenomena of oral-written transmission have in common is the overall focus of ancient tradents on preservation of written words from the past. Usually, this meant that they reproduced traditions with virtually no change. To be sure, as we have seen, such reproduction without change could include a variety of memory variants: changes of wording, order, or non-significant shifts in grammar or syntax. And graphically copied traditions could include various copyists' errors. Nevertheless, if we are to look empirically at the documented transmission of ancient texts, the first and most important thing to emphasize is the following: the vast majority of cases involve reproduction of earlier traditions with no shifts beyond the memory or graphic shifts surveyed so far. At the least, tradents aimed for preservation of the semantic content of traditions. Often, with time, traditions such as the later Mesopotamian and Jewish traditions developed various techniques for insuring more precise preservation of the tradition, often through processes of graphic copying and various techniques of proofing copies.

Amidst this overall trend toward preservation of ancient written tradition, two main trends of revision have emerged. Both are consistent in some way with the push toward preservation. First, we have seen how, as a general rule, ancient scholars who were producing a new version of an ancient tradition either preserved it unchanged (aside from memory or graphic variants) or expanded it. The other major sort of preservation amidst revision is the tendency of many ancient scholars to harmonize ancient traditions. Scholars reproducing ancient traditions had learned them well enough to recognize inconsistencies and divergences between different

parts of them. Commands given early in the epic might not be executed precisely later in the story, or the execution might not be reported at all. Speeches might be partially, but not completely, parallel to one another. Laws on a given topic might be scattered broadly across a given work and/or be inconsistent. As we have seen, some scholars reproducing these traditions dealt with these phenomena by combining and/or harmonizing the divergent traditions. Commands and their executions would be made to match; speeches made parallel; laws joined and conformed to each other, and so on. Sometimes this process may have led to contraction of traditions, thus contradicting the above-described tendency of scholars to preserve and expand traditions. Yet this tendency can be seen nevertheless as another sort of preservation of traditions. I suggest that such harmonization involved what might be understood as a "hyper-memorization" of tradition where different parts of a textual tradition (or broader corpus) were understood to be so sacrosanct that they were not allowed to contradict each other.

Thus the push toward preservation of tradition combines in different ways with the "striving after meaning" (so Bartlett) that tradents do when reproducing traditions they cherish. At some stages, tradents may understand themselves to be producing "the same" tradition, when the product actually might appear quite different to an outsider. A narrative is expanded, a law is harmonized, a word in a proverb is exchanged for another; maybe divine designations, Yahweh and Elohim, are exchanged.

The fluidity that could occur amidst the push toward preservation of ancient texts has significant implications for multiple disciplines, certainly, and especially for biblical studies. For example, "textual criticism" in biblical studies and other parts of the humanities often has meant the attempt to establish the earliest "text" of a given composition. Yet, how much can we seek an earlier fixed text, if such good variants were in play over against each other at the earliest stages? Similarly, biblical scholars often have identified possible earlier sources of biblical books on the basis of divergent designations for God. Yet, if such divine terms (such as "Elohim" and "Yahweh") were taken to be equivalent designations of one and the same deity, they may well have been exchanged with one another by scribes. Thus variation between them in Hebrew texts often may reflect cognitive variation, not variation between an "Elohim" and "Yahweh" source. Finally, some biblical scholars have argued for dating biblical texts on the basis of linguistic features found in them. Yet, might linguistic marks often taken as clues to the datings of biblical books actually be signs that some less authoritative manuscript traditions were allowed to float and be linguistically updated in a way that other, more authoritative manuscript traditions, say for the Torah, were not?

It is not as if everything is chaotic. Clearly meaningful distinctions can be made between stages of textual transmission, with an overall tendency seen in Mesopotamia, Egypt, and Israel from more transmission of texts via memory earlier on to ever-increasing focus on exact, graphic copying of texts later on, as they achieve more authority. That said, even at late stages of transmission, scholars seem to have internalized the written texts that they carefully copied, and often depended on memory to reproduce those texts in a variety of contexts—whether citing them, inserting them into a parallel law, or even reproducing them as part of a new literary whole. Moreover, the widespread presence of memory variants in the early transmission of biblical literature up into the late Second Temple period should lead us to re-envision the process

of composition, revision, and early reception of biblical literature and reevaluate some more graphic, exclusively text-based models that undergird contemporary exegetical methods.

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