

Richard C. Steiner

Variation, Simplifying Assumptions, and the History of Spirantization in Aramaic and Hebrew

Like all ancient historians, those of us who deal with the history of ancient languages are dependent on chance discoveries for the data with which we work. We are faced with enormous gaps in the historical record, and we compensate for them by making simplifying assumptions – assumptions that favor uniformity over variation. For example, when we attempt to date Aramaic sound changes, we conveniently assume that evidence gathered in places where it is plentiful (say, Egypt) is applicable to places where it is not (say, Mesopotamia). In other words, we assume that a change attested in several regions occurred in all of them at roughly the same time and in roughly the same way. In addition, we assume that all of the consonants (belonging to a well-defined class and) affected by a regular phonetic change were affected at the same time.¹ These are examples of what Moshe Bar-Asher has called “the preconception of uniformity”.²

Such assumptions are rarely articulated, let alone debated; they are part of a “gentleman’s agreement”, a tacit understanding among scholars

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1. In other words, assumptions of uniformity apply to phonological space (places of articulation) as well as geographical space.
2. M. Bar-Asher, “Mishnaic Hebrew”, *The Cambridge History of Judaism* 4.379.

in the field. Students who wish to remain in the field quickly learn not to ask too many pesky questions about them; they know that if they protest too vociferously about the emperor's lack of clothing, they will be sent packing to a later era, where the data are more plentiful.

Let me stress that I am calling not for a ban on simplifying assumptions but for an increase in our awareness and acknowledgment of them. There is no way of completely eliminating such assumptions from our field, but that does not give us the right to forget about them or to pretend that they do not matter. The more we study modern languages, the more we learn that they are anything but uniform and simple. Every Semitist should be required to read works of the variationist school of linguistics³ as a reality check. Unacknowledged simplifying assumptions are dangerous, because they lull us into a false sense of security that prevents us from looking more carefully.⁴ We should never forget that each simplifying assumption that we employ increases the tenuousness of our conclusions.

In theory, simplifying assumptions should be discarded immediately upon the discovery of new facts that make them untenable. In practice, scholars find it hard to part with these old friends; as a result, the field becomes burdened with intractable problems and controversies. Thus, assumptions intended to simplify matters end up complicating them.

Take, for example, the controversy involving the postvocalic spirantization of oral non-emphatic stops (the בגדכפ"ת consonants) in Aramaic and Hebrew. The enormous range of dates that has been proposed for this development has long been an embarrassment to the field. In the words of E. Speiser:

The change has been placed by some scholars back in the earliest period of the Hebrew language. Others have refused to recognize it

3. See, for example, *Style and Sociolinguistic Variation* (ed. P. Eckert and J. R. Rickford; Cambridge: Cambridge University Press, 2001) and the literature cited there.
4. One Semitist who did look for variation in Imperial Aramaic appears to have had little trouble finding it. M. L. Folmer's recent book, *The Aramaic Language in the Achaemenid Period: A Study in Linguistic Variation* (Leuven: Peeters, 1995), stretches to 800 pages.

as late as the beginning of the Christian era. The very fact that two so remote periods may be suggested at the same time as the date of a certain phonetic process is in itself the most eloquent witness for the lack of sufficient tangible data on the subject; incidentally also, of the difficulties involved in the investigation of the problem in question.⁵

The gap between the two extremes became even greater when P. E. Kahle asserted that “the double pronunciation of the BGDKFT was introduced into Hebrew in the course of the eighth century” by the Masoretes, possibly following the Syrians.⁶ As we trace the history of spirantization in Aramaic and Hebrew, it will become apparent that this seemingly intractable controversy is the result of a failure to reexamine simplifying assumptions.

1. Spirantization in Palestine

It has usually been assumed that the entire בגדכפ"ת class – not just *k* and *g* – resisted postvocalic spirantization until the old uvular fricatives **ħ* and **ǧ* were lost, but this assumption is undermined by evidence from the Samaritan reading tradition. In describing that tradition, early Samaritan grammarians speak of the double realization of בפרו"ת rather than בגדכפ"ת.⁷ According to Z. Ben-Ḥayyim, *k* and *g* never developed spirantized allophones in Samaritan Hebrew.⁸ If that is the case, the reason must be that the spirantization of the velar stops was blocked by the preservation of **ħ* and **ǧ*. Put differently, Samaritan speakers opted to forgo “ease of articulation” when pronouncing *k* and *g* after vowels, in

5. E. Speiser, “The Pronunciation of Hebrew According to the Transliterations in the Hexapla”, *JQR* 16 (1926) 371.
6. P. E. Kahle, *The Cairo Geniza* (Oxford: Blackwell, 1959) 184. So too G. Garbini, *Il semitico di nord-ovest* (Naples, 1960) 39. Cf. also H. Torczyner, “Die Aussprache der Begad-kefat in der Geschichte der hebräischen Sprache”, *MGWJ* 81 NF 45 (1937) 348: “post-mishnaic, possibly late-talmudic”.
7. Z. Ben-Ḥayyim, עברית וארמית נוסח שומרון (Jerusalem: Bialik, 1957–77) 5.21–22 = *A Grammar of Samaritan Hebrew* (Winona Lake, In.: Eisenbrauns, 2000) 34.
8. Ben-Ḥayyim, עברית וארמית, 5.22–23 = *Grammar*, 34.

order to avoid a conditioned merger with **h* and **g*.⁹ Thus, they were careful to enunciate the final consonant of *pak* “flask” as a stop in order to prevent confusion with *paḥ* “bird-trap, snare”.¹⁰ The uvulars were eventually lost in Samaritan Hebrew, but by that time, it seems, spirantization was no longer productive.¹¹

The Samaritan evidence appears to confirm the assumption, made by G. Bergsträsser and many later scholars, that the “margin of safety” between **h* and *k* was not sufficient to prevent confusion between the two.¹² However, it does not follow that the assumption is valid outside of Samaria. It is possible that **h* and *k* had the same place of articulation in Samaria but not elsewhere. In places where **h* was uvular and *k* ~ *k̄* was palatal or velar (as expected from Arabic), Bergsträsser’s assumption is less than compelling. At least a dozen Caucasian languages contrast velar *x*, uvular *χ*, and pharyngeal *ħ* (= *h*).¹³ Speakers of these languages seem

9. The merger of *b* with *w* in Samaritan Hebrew is not entirely comparable. It is an unconditional merger, perhaps due to Greek influence.
10. That *ḥ* had a uvular **h* is clear from Arab. *fahḥ* “snare” and Egyptian *phḥ* “bird-trap”. For the Egyptian, see Y. Muchiki, *Egyptian Proper Names and Loanwords in North-West Semitic* (Atlanta: Society of Biblical Literature, 1999) 253.
11. Cf. the absence of spirantization after epenthetic vowels in verbs in the Tiberian Hebrew reading tradition (פָּרַחַץ, פָּרַחַץ, etc.). Presumably, epenthesis in verbs was later; see R. C. Steiner, “On the Origin of the *ḥēḏer* ~ *ḥāḏār* Alternation in Hebrew”, *Afroasiatic Linguistics* 3 (1976) 9–10.
12. G. Bergsträsser, *Hebräische Grammatik* (Leipzig: Vogel, 1918) 40.
13. N. S. Trubetzkoy, “Die Konsonantensysteme der ostkaukasischen Sprachen”, *Caucasica* 8 (1931) 17, 19–21, 25–28, 28–30, 31, 32–33, 35–37, 39 (Rutul, Lezgi, Tabassaran, Aghul, Kubachi, Lak, Dargwa, Avar); B. K. Gigineishvili, *Sravnitel’naia fonetika dagestanskikh iazykov* (Tbilisi: Izd-vo Tbilisskogo univ., 1977) 31, 37, 40, 43 (Avar, Akhvakh, Dargwa, Lak); A. E. Kibrik and S. V. Kodzasov, *Sopostavitel’noe izuchenie dagestanskikh iazykov: imia i fonetika* (Moscow: Izd-vo Moskovskogo univ., 1990) 320, 321, 322, 323–24, 326, 333, 334, 336–37, 338–40, 341, 342, 343, 345, 345, 346 (Avar, Andi, Akhvakh, Chamalal, Tindi, Lak, Dargwa, Tabassaran, Aghul, Lezgi, Rutul, Kryts, Tsakhur, Budukh, Khinalugh); “Caucasian Languages”, *International Encyclopedia of Linguistics* (New York: Oxford University Press, 1992) 1.234 (*Abkhaz*); G. D. S. Anderson, “Lak Phonology”, *Phonologies of Asia and Africa* (ed. A. S. Kaye; Winona Lake, In.: Eisenbrauns, 1997) 2.978 (*Lak*). All of the languages listed in parentheses have a contrast between velar *x* and uvular *χ*; the ones in

to have no problem in keeping these consonants apart, and there is no reason to assume that speakers of Aramaic and Hebrew were less phonologically adept.¹⁴ We shall return to this point below, in dealing with Mesopotamia.

With the aid of a simplifying assumption (in this case, a relatively innocuous one), we can use the Samaritan evidence to shed light on the Jews. Among the Jews, of course, the velar stops did undergo spirantization, but the Samaritan evidence raises the possibility that this may have occurred later than the spirantization of the labial and dental stops. As for the latter change, shared by Jews and Samaritans, it seems reasonable to assume that it took place at roughly the same time in both communities. If so, we can give a *terminus ante quem* for the spirantization of the labial and dental stops: it must have taken place **before** the loss of the old uvular fricatives, *ħ and *ġ – not afterwards as usually assumed. I have argued elsewhere that the merger of *ħ with ħ took place in Palestine in the first century B.C.E. (or the early first century C.E.) and that the merger of *ġ with ʕ took place well before that.¹⁵ If so, K. Beyer's dating of the origin of spirantization to the first century B.C.E.¹⁶ is too late by at least a century.

italics have pharyngeal ħ (=ħ), as well. In the case of Lak, the sources do not agree.

14. Contra A. Dolgopolsky, *From Proto-Semitic to Hebrew* (Milan: Centro studi camito-semitici, 1999) 153 n. 15. J. Blau (*On Polyphony in Biblical Hebrew* [Proceedings of the Israel Academy of Sciences and Humanities, VI 2; Jerusalem: Israel Academy of Sciences and Humanities, 1982] 75) disputes Bergsträsser's assumption on somewhat different grounds: "...in Eastern Syriac ħ has shifted to x and, as in Syriac in general, postvocalic b, g, d, k, p, t are spirantized. Yet the coexistence of x and spirantized k has not led to any significant confusion between them.... The lack of confusion... demonstrates that a phoneme and an allophone, though phonetically (almost) identical, need not be confused, presumably because the allophone belongs to a different archiphoneme".
15. R. C. Steiner, "On the Dating of Hebrew Sound Changes (*Ĥ > Ĥ and *Ġ > ʕ) and Greek Translations (2 Esdras and Judith)", *JBL* 124 (2005) 229–67. According to Blau (*On Polyphony*, 70, 39 n. 69), *ġ was lost in spoken Hebrew before 200 B.C.E.
16. K. Beyer, *Die aramäischen Texte vom Toten Meer* (Göttingen: Vandenhoeck & Ruprecht, 1984–1994) 1.126–28.

2. Spirantization in Syria

Armenian transcriptions of Syriac from the fifth century C.E. suggest that the failure to spirantize *k* and *g* may not be unique to Samaria. Armenian – with its unaspirated *k*, aspirated *ḳ*, and fricative *x* – is well equipped to distinguish the two realizations of כ, and yet *ḳ* is the usual rendering of כ in all positions. In postvocalic position, we find Arm. *Brkišoy* = Syr. בריכישׁוּע (catholicos of Armenia during the reign of Vram, 420–38 C.E.) and Arm. *maḳs* “tax” = Syr. -מכס “tax” (Rom 13:7).¹⁷ Contrast the use of Arm. *x* to render Arab. *ḥ*, e.g., Arm. *nusxay* “exemplar” = Arab. *nusḥa* “copy, transcript; original from which transcript is made”.¹⁸

Armenian has fewer resources for distinguishing the two realizations of the other בגדכפ"ת consonants, but it does manage to render the fricative realization of three of them in a few examples. For *b*, we find Arm. *Mewin* (alongside *Mcbin*) = Syr. נציבין “Nisibis”, *šawit* “path” = שביל “path” (Mat 3:3), etc.¹⁹ For *p̄*, Arm. *ketew-em* “to peel” = Syr. קלף “to peel” (Gen 30:37), etc.²⁰ For *d*, Arm. *šamp̄ur* (also *šap̄ur*) “spit” = Syr. שפוד “spit” and Arm. *hreyay Jew* = Syr. יהודיי “Jew”.²¹

17. H. Hübschmann, “Die semitischen Lehnwörter im Altarmenischen”, *ZDMG* 46 (1892) 229, 245 (#76) = id., *Kleine Schriften zum Armenischen* (ed. R. Schmitt; Hildesheim: Olms, 1976) 254, 270; id., *Armenische Grammatik* (Leipzig, 1895–97; repr. Hildesheim: Olms, 1972) 292 (#11); 311 (#74). Cf. S. Telegdi, “Essai sur la phonétique des emprunts iraniens en araméen talmudique”, *JA* 1935, 201: “Si le *k* du sémitique commun avait passé en araméen à *ḥ* sensiblement avant 500 ap. J.-C., on trouverait le כ araméen représenté fréquemment... par *x* dans les emprunts de l’arménien. Il n’en est rien; l’araméen כ est reflété... par *kh* en arménien”.
18. Hübschmann, “Die semitischen Lehnwörter”, 256, 264 (#46) = *Kleine Schriften*, 281, 289. This contrast turns the Armenian rendering of Syriac כ into a “controlled transcription”; see R. C. Steiner, *Affricated Šade in the Semitic Languages* (New York: American Academy for Jewish Research, 1982) 7–8.
19. Hübschmann, “Die semitischen Lehnwörter”, 229, 246 (#86) = *Kleine Schriften*, 254, 271; id., *Armenische Grammatik*, 286, 295 (#30), 313 (#86).
20. Hübschmann, “Die semitischen Lehnwörter”, 229, 241 (#61) = *Kleine Schriften*, 254, 266; id., *Armenische Grammatik*, 286, 307 (#55).
21. Hübschmann, *Armenische Grammatik*, 286, 309 (#63), 313 (#84). Note that Arm. *r* also renders Iranian *δ* (but not *d*) in loanwords; see Hübschmann, “Armeniaca III”, *ZDMG* 36 (1882) 133–34 = *Kleine Schriften*, 141–42.

Earlier evidence for *ḡ* in Syria comes from an Old South Arabian inscription mentioning legations that Il'add Yaliṭ, king of Ḥaḍramawt (third century C.E.) received at his resort in al-ʿUqlah. The legations included *tdmryyh* “two Palmyrenes” and *hndyyhn* “two Indians”.²² The use of ESA *ḡ* instead of *d* to render the second consonant of Palmyrene Aramaic *tdmry* “Palmyrene”²³ shows that that consonant was heard as spirantized by the third century C.E.

The evidence is too fragmentary to permit any firm conclusion, but it does suggest the possibility that postvocalic spirantization in Syria was originally similar to that in Samaria, affecting the labials and dentals but not the velars. In any event, *k* and *g* must have undergone spirantization before the time that the Syriac signs for *quššaya* and *rukkaka* were introduced. Examples of Syriac ܟ and ܠ with the *rukkaka* sign (a point or line below the letter) are found in the earliest manuscripts that use that sign, e.g., British Library Add. 17104 (sixth century C.E.?) and Add. 14471 (615 C.E.).²⁴

3. Spirantization in Egypt vs. Spirantization in Mesopotamia

When we turn from location in the vocal tract to location in the ancient Near East (Egypt vs. Mesopotamia), we must again take variability into account. The best evidence for Egyptian Aramaic comes from papyrus Amherst 63, the Aramaic text in Demotic script. Like Armenian, Demotic is well equipped to distinguish the two realizations of ܟ. It has two velar stops (*k* and *ḳ*) and two velar fricatives (*ħ* and *ḥ*). So far as I can tell, this text uses only Demotic *k* and *ḳ* – never *ħ* or *ḥ* – to render postvocalic Aramaic *k*. Similarly, it never uses Demotic *f* to render postvocalic Aramaic *p*; indeed, *f* is virtually unattested in the text. Amherst 63 was

22. See R. C. Steiner, *The Case for Fricative-Laterals in Proto-Semitic* (New Haven, Conn.: American Oriental Society, 1977) 138–40.

23. For this gentilic, see D. R. Hillers and E. Cussini, *Palmyrene Aramaic Texts* (Baltimore: Johns Hopkins University Press, 1996) 418–19.

24. See J. B. Segal, “*Quššaya* and *Rukkaka*: a Historical Introduction”, *JSS* 34 (1989) 484–85 and add the examples from Add. 14471 sent to me by the author in a letter dated Jan. 26, 1986: פשיגא (fol. 16a line 5) and מכתבוותא (fol. 54a line 4).

probably dictated at the beginning of the third century B.C.E. (to a scribe who had been trained in the fourth century B.C.E.). If so, the spirantization of postvocalic *k* in Egyptian Aramaic must have occurred after that time – if it occurred at all.

This *terminus post quem* does not necessarily contradict the earlier dates proposed by many scholars, which may be valid for Mesopotamia. To be sure, these scholars do not restrict the earlier dates to Mesopotamia; however, in many cases they are based mainly or solely on Mesopotamian evidence.

Some scholars see evidence of spirantization in Arsham letter 11, written in the late fifth century B.C.E. in Babylon.²⁵ Here we find the name of one of the addressees written once as חנ[נ]ד[ס]ירם and once as כנודסירם.²⁶ According to E. Lipiński, the spirantization of כ is “évidente dans la double graphie *HND SYRM* et *KNDSYRM* du nom d’une seule et même personne”.²⁷ In my opinion, this evidence is far from conclusive. The name in question is believed to be Luwian, with the first three consonants representing Common Anatolian **hant-* “before” and the last three consonants representing a divine name.²⁸ The use of voiceless velar

25. G. R. Driver, *Aramaic Documents of the Fifth Century B.C.* (Oxford: Clarendon Press, 1957) 10–11.
26. Driver, *Aramaic Documents*, 34 (11:1*, 11:2), 78; B. Porten and A. Yardeni, *Textbook of Aramaic Documents from Ancient Egypt* (Jerusalem: Hebrew University, 1986–99) 1.124. We find a very similar hesitation between ח and כ in coins from Cilicia. Some of the coins of Pharnabazus, the Persian satrap of Cilicia (c. 379–374 B.C.E.), have חלך, but others have a new spelling, כלך; see G. A. Cooke, *A Text-book of North-Semitic Inscriptions* (Oxford: Clarendon Press, 1903) 343–44 (cf. 346).
27. E. Lipiński, “Études d’onomastique ouest-sémitique”, *BO* 37 (1980) 8; cf. Driver, *Aramaic Documents*, 78.
28. See P. Grelot, *Documents araméens d’Égypte* (Paris: Éditions du Cerf, 1972) 476; W. Kornfeld, *Onomastica aramaica aus Ägypten* (Vienna: Österreichische Akademie der Wissenschaften, 1978) 34; T. Muraoka and B. Porten, *A Grammar of Egyptian Aramaic* (Leiden: Brill, 1998) 19. Hittite *ha-an-ti* “frontally” – cognate to Greek ἄντι, Latin *ante*, etc. and derived from Proto-Indo-European **h₂enti* – is the parade example of the “a-coloring laryngeal”. Concerning that sound, H. C. Melchert (“Hittite Phonology”, *Phonologies of Asia and Africa*, 2.561) writes: “I follow Keiler... in assuming that PIE **h₂*... was a pharyngeal fricative. In the absence of any compelling counterevidence, I assume

כ to represent voiceless velar h would be quite natural, even if כ were not yet spirantized, if Babylonian Aramaic no longer had the old uvular $*h$. The hesitation between כ and the back fricative π would also be quite natural.

E. Y. Kutscher dates spirantization to the sixth century B.C.E.²⁹ This dating is based on evidence pointed out by W. Eilers, viz., the use of cuneiform k (alongside h) to render Iranian x in postvocalic position. Eilers and Kutscher assume that this cuneiform rendering reflects Aramaic phonology, because “Ak(kadian) was by then a dead language, written by A(ramaic)-speaking scribes who superimposed on the Ak(kadian) their A(ramaic) pronunciation”.³⁰ One of the examples of this rendering cited by Eilers is from the Bisitun inscription (c. 518

the same point of articulation for Hittite...”. However, Melchert himself (“Hittite Phonology”, 558) provides such counterevidence without realizing it: “Renderings of Hittite names in Egyptian hieroglyphs do confirm the basic values of many Hittite consonants: e.g. ... *Zalhi-* /*tsalhi*/ = *trh*”. In fact, the use of Egyptian h instead of h (pronounced [h]) to render Hittite h is clear evidence that the latter was **not** realized as the voiceless pharyngeal fricative. Melchert would seem to be closer to the truth when he states (“Hittite Phonology”, 561) that the Lycian reflexes of $*h_2$ are “back velar or uvular” and that “a similar shift in articulation in Hittite obviously cannot be excluded”. If the etymology of כנדיסירם, etc., offered above is correct, the Luwian reflexes of $*h_2$ are also back velar or uvular.

29. E. Y. Kutscher, “Aramaic”, *Current Trends in Linguistics* (The Hague: Mouton, 1963–[1970]) 6.374, reprinted in *Hebrew and Aramaic Studies* (Jerusalem: Magnes, 1977) 117.
30. Kutscher, “Aramaic”, 374; cf. W. Eilers, *Iranische Beamtennamen in der keilschriftlichen Überlieferung* (Abhandlungen für die Kunde des Morgenlandes 25/5; Leipzig, 1940) 70. The influence of spoken languages on dead languages is well known from Latin and Hebrew. Many sound changes have passed into Hebrew reading traditions from local vernaculars, e.g., Arabic $g > ġ$ in Yemen affecting γ ; Arabic $q > ʔ$ in Aleppo and parts of Morocco affecting \aleph ; Romance y (j) $> ġ$ in France, Italy, and Spain (and $y > ġ > ʔ > s$ in parts of southern France) affecting \aleph (mainly in initial position); Old French $ts > s$ affecting \aleph . This was the subject of a paper I read to the Congrès International sur les Langues et traditions orales des communautés juives méditerranéennes et orientales (Paris, October 15–18, 1982) entitled “To What Extent are Hebrew Reading Traditions Influenced by the Phonology of Local Vernaculars”?

B.C.E.). Kutscher appears to have based his dating on this example, ignoring earlier evidence cited by Eilers from Assyrian sources.³¹

Eilers points to the Akkadian transcription of three Iranian names: Cyaxares (*Hu-vaxštra* or, according to Eilers, *Huva-xšatra*), Xerxes (*Xšayāršā*), and Artaxerxes (*Artaxšaça*).³² In two of these names, the Akkadian rendering of Iranian *x* fluctuates. For Xerxes, Eilers and Kutscher cite *Ak-ši-ya-ar-šu* alongside *Hi-ši-²-ar-ši*. For Artaxerxes, we may cite *Ar-ta-ak-šá-as-su*, *Ar-ták-ša-as-su*, etc. alongside *Ar-ta-²-ḫa-šá-is-su*, *Ar-táh-ša-as-su*, etc).³³ For Cyaxares, only forms with *k* are known. Eilers cites Late Babylonian *Ú-ma-ku-iš-tar* from the Bisitun inscription, corresponding to Old Persian *Huvaxštra* in the inscription.³⁴ He and Kutscher appear to have overlooked the earlier references to Cyaxares in the Babylonian “Fall of Assyria” Chronicle, published in 1923. The name appears several times as *Ú-ma-kiš-tar* in the narrative concerning the years 614–612 B.C.E.³⁵ Assuming that this chronicle was composed not

31. There are good grounds for ignoring the Assyrian evidence. According to J. Hämeen-Anttila (*A Sketch of Neo-Assyrian Grammar* [Helsinki: Neo-Assyrian Text Corpus Project, 2000] 15), “*h* (velar [ḫ]) has probably been changed in NA to pharyngeal ḫ or even to laryngeal *h*”. For further discussion, see my forthcoming “*Ḫ > H: On the Diffusion of an Assyro-Aramaic Sound Change to Babylonia*”.
32. Eilers, *Iranische Beamtennamen*, 70.
33. R. Schmitt, “Artaxerxes”, *Encyclopaedia Iranica* (London: Routledge, 1985–) 2.654.
34. Eilers, *Iranische Beamtennamen*, 70; id., “Eine mittelpersische Wortform aus frühachämenidischer Zeit?”, *ZDMG* 90 (1936) 174. For the Iranian etymology, see also R. G. Kent, *Old Persian* (New Haven: American Oriental Society, 1953) 177; W. Brandenstein and M. Mayrhofer, *Handbuch des Altpersischen* (Wiesbaden: Harrassowitz, 1964) 149; W. Hinz, “Kyaxares”, *Reallexikon der Assyriologie* (Berlin: de Gruyter, 1932–) 6.399; I. M. Diakonoff, “Cyaxares”, *Encyclopaedia Iranica*, 6.478. For the Akkadian text, see F. Malbran-Labat, *La version akkadienne de l’inscription trilingue de Darius à Behistun* (Rome: GEI, 1994) 97 (§22), 99 (§26), 103 (§41).
35. The name is best preserved in line 47; see C. J. Gadd, *The Fall of Nineveh: The Newly Discovered Babylonian Chronicle, No. 21,901, in the British Museum* (London: British Academy, 1923) 9, 34, 40; D. J. Wiseman, *Chronicles of Chaldaean Kings* (London: Trustees of the British Museum, 1956) 60–61, 81; and A. K. Grayson, *Assyrian and Babylonian Chronicles* (Locust Valley, N.Y.: Augustin, 1975) 94.

long after the events it relates, the rendering would seem to show that Aramaic *k* was already spirantized at the end of the seventh century.

This is not the only evidence that can be cited in support of such an early dating. In an administrative document of Nebuchadrezzar II dated 592 B.C.E., we find the phrases “*Ia-ku-ú-ki-nu* [= יהויכין], the son of the king of *Ia-ku-du* [= יהוד(ה)]” and “the 5 sons of the king of *Ia-ku-du* [= יהוד(ה)]”.³⁶ These phrases contain three examples of a striking transcription: Hebrew *h* rendered by cuneiform *k* (instead of the expected *ḫ* or *ʕ*) in postvocalic position.³⁷ Here again we seem to be dealing with an Aramaic-speaking scribe, for whom cuneiform *k* was realized as a fricative in postvocalic position.

During the reign of Nebuchadrezzar II, spirantization may well have been a relatively new phenomenon – used in colloquial Aramaic but avoided in formal speech. That would explain the Old Persian transcription *N-b-u-ku-(u-)d-r-č-r* = נבוכדראצר, with *k* rather than *x*.³⁸ Although this transcription is used of Nebuchadrezzar III and IV in the

36. *ANET*, 308. Cf. E. E. Knudsen, “Spirantization of Velars in Akkadian”, *Lišān mithūrti* (AOAT 1; Neukirchen-Vluyn: Neukirchener Verlag des Erziehungsvereins, 1969) 148; F. Joannès and A. Lemaire, “Trois tablettes cunéiformes à onomastique ouest-sémitique”, *Transeuphratène* 17 (1999) 24; R. Zadok, *The Earliest Diaspora* (Tel-Aviv: Tel-Aviv University, 2002) 14, 27. Knudsen puts *Ia-ku-ú-ki-nu* and *Ia-ku-du* together with earlier examples of *ḫ* alternating with *k* and *g*, as evidence for spirantization in Akkadian; cf. W. von Soden, “Die Spirantisierung von Verschlusslauten im Akkadischen: Ein Vorbericht”, *JNES* 27 (1968) 214–20; Hämeen-Anttila, *Sketch*, 17; etc. I take *Ia-ku-ú-ki-nu* and *Ia-ku-du* to be evidence for spirantization in Aramaic, rather than Akkadian, because the writer was almost certainly an Aramaic speaker. Cf. S. A. Kaufman, *The Akkadian Influences on Aramaic* (Chicago: University of Chicago Press, 1974) 169: “It is quite probable that in the LB period, and perhaps even earlier, the great majority of those writing Akkadian documents were native Aramaic speakers”. This is especially true of a scribe assigned to deal with foreign prisoners.
37. Other documents from the same time have *Ia-ʕ-ú-kin* and *Ia-a-ḫu-du* with the expected renderings; see *ANET*, 308. For another possible example of Babylonian *k* rendering foreign *h*, see R. Zadok, “On Some Iranian Names in Late-Babylonian Documents”, *IOS* 6 (1976) 70.
38. For evidence that this is a rendering of Aramaic rather than Akkadian, see Steiner, *Affricated Šade*, 50, 70–71.

Bisitun inscription, it is very likely that it goes back to the time of Nebuchadrezzar II. It is not difficult to imagine that a king's subjects were careful not to pronounce his name in a colloquial manner.

Kutscher's dating of spirantization, based on the work of Eilers, is similar to that of others who used Mesopotamian evidence.³⁹ Nevertheless, some recent scholars believe it is too early. A. Dolgopolsky writes:

But Eiler's (*sic*) hypothesis proves to be untenable in the light of the Epigr. Aram. transcription of the same name with a pharyngeal h: חשירש..., חשיארש..., אחשירש.... If Eiler (*sic*) were right, we would expect here a transcription with the phoneme /k/ (i.e. with the letter כ k).⁴⁰

In Dolgopolsky's view, the earliest direct evidence for spirantization comes from the Nisa ostraca. Many of those ostraca, wine receipts from the first century B.C.E., contain the word חותא, which has been identified with חכתא "jar".⁴¹ This evidence is very similar to the evidence adduced by Beyer for dating spirantization to the first century B.C.E.⁴²

Dolgopolsky's argument against the early dating depends on the assumption that "the Begadkefat lenition [was] incompatible with the preservation of the ancient χ ", i.e., $*h$.⁴³ We have already pointed out the tenuousness of this common assumption. If $*h$ was a uvular and k was a velar (as the analogy of Arabic might suggest), there is no reason why they could not have coexisted in Babylonian Aramaic, as they do in many Caucasian languages.⁴⁴ And if Dolgopolsky is right in believing that "the Persian name of the king... contained an Old Persian consonant $*\chi$ (most

39. Cf. A. Goetze, "Accent and Vocalism in Hebrew", *JAOS* 59 (1939) 452–53 (between 850 and 450 B.C.E.) and Kaufman, *Akkadian Influences*, 117 (between 700 and 400 B.C.E.).

40. Dolgopolsky, *From Proto-Semitic to Hebrew*, 73.

41. Dolgopolsky, *From Proto-Semitic to Hebrew*, 73. See also *Dictionary of the North-West Semitic Inscriptions* (ed. J. Hoftijzer and K. Jongeling; Leiden: Brill, 1995) 357 s.v. *hwt* and the literature cited there.

42. Beyer, *Die aramäischen Texte*, 1.128.

43. Dolgopolsky, *From Proto-Semitic to Hebrew*, 74.

44. See n. 13 above.

probably, a uvular fricative...)",⁴⁵ an Aramaic rendering with uvular **ħ* (written 𐤆) rather than velar *k* (written 𐤀) is quite natural.

K. Beyer offers a different argument for a late dating. He adduces transcriptions such as *za-ki-it* (instead of **za-ħi-it*) for זכית in the Uruk incantation as evidence that spirantization had not yet occurred in 150 B.C.E.⁴⁶ In my opinion, *za-ki-it* must be understood in the light of what we have said about *Ia-ku-du*; the Uruk incantation was no doubt written by an Aramaic speaker for whom cuneiform *k* had long since acquired a second, fricative value. For such a transcriber, cuneiform *k* would be the rendering of choice for Aramaic *k*, even when the latter was spirantized. This is especially true (1) if Akk. *ħ* was a uvular and Aram. *k* was a velar or (2) if Akk. *ħ* was a pharyngeal or laryngeal in the Hellenistic period. Possibility (2) is supported by Greek transcriptions. Although Hebrew *ħ* and Demotic *ħ* are rendered with Greek χ in the Hellenistic period,⁴⁷ Akkadian *ħ* is rendered with zero, e.g, Μηλω = *Meluhħa* and σοος = *suhuššu*.⁴⁸

4. Conclusions

We must abandon the widespread assumption that the postvocalic spirantization of oral non-emphatic stops (the בגדכפ"ת consonants) in Aramaic and Hebrew occurred at roughly the same time throughout the ancient Near East. In Babylonia, Aramaic *k* was apparently already spirantized – in colloquial but not formal speech – at the end of the

45. Dolgopolsky, *From Proto-Semitic to Hebrew*, 73.

46. Beyer, *Die aramäischen Texte*, 1.127.

47. Steiner, "On the Dating", 231–34.

48. E. Sollberger, "Graeco-Babyloniaca", *Iraq* 24 (1962) 66 and A. Sáenz-Badillos, "El hebreo del s. II d. C. a la luz de las transcripciones griegas de Aquila, Simmaco y Teodocion", *Sefarad* 35 (1975) 126. Both authors assume that Akk. *ħ* was realized as a glottal stop or completely elided in the Seleucid period. However, the Greek transcriptions in question may reflect a realization [h] by Aramaic-speaking priests; see my "*Ĥ* > *Ĥʰ*". For alleged transcriptions of *ħ* with Greek ξ , see E. E. Knudsen, "Akkadian in Greek Othography: Evidence of Sound Change in an Ancient Traditional Pronunciation", *Orientalia Suecana* 38–39 (1989–90) 73, 75. Elsewhere ξ is used for *š* or *š'*; see Steiner, *Affricated Šade*, 69.

seventh century B.C.E. In Egypt, Aramaic *k* was not yet spirantized at the beginning of the third century B.C.E. If so, the change originated in Mesopotamia, possibly under Akkadian influence,⁴⁹ and took centuries to reach the West. Even when it finally did reach the West, it was apparently introduced in stages, with the spirantization of *b*, *d*, *p*, and *t* preceding the loss of **ħ* (first century B.C.E.) and the spirantization of *k* following it. This double dose of variability accounts for the wide divergence of views that exists with regard to the date of spirantization.

49. This is a possibility raised by Knudsen, "Spirantization", 155.