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THE MIDDLE PERSIAN VOICING OF OIR. *-K- IN THE PARALLEL TRADITIONS (*)

ABSTRACT

*L'ipotesi che la sonorizzazione mediopersiana dell'occlusiva velare sorda ir. ant. *-k- in posizione postvocalica sia avvenuta in epoca successiva rispetto alla sonorizzazione delle altre due occlusive sorde dell'iranico antico è argomentata, nel presente lavoro, sulla base dei dati inferibili dal trattamento degli esiti di ir. ant. *-k- nelle versioni greche delle iscrizioni sasanidi, nelle continuazioni neopersiane e mediopersiane, nei testi manichei e, infine, alla luce dei dati, generalmente non presi in considerazione dalla letteratura sull'argomento, deducibili dai prestiti iranici in siriano e nell'aramaico talmudico.*

1. OIR. **P* **T* **K* IN MIDDLE PERSIAN

According to the traditional picture provided in the literature, in Middle Persian OIr. */p t k/ are well preserved in initial, rarely in final position, and in internal position only if geminated or in contact with another voiceless consonant (with some exceptions); they are voiced in the other phonetic contexts, so that they appear as MP /b d g/ ⁽¹⁾.

(*) I would like to thank Marco Mancini, Artemij Keidan, and Alessandro Del Tomba for helpful suggestions and valuable comments on earlier drafts of this paper; I also express my gratitude to the two anonymous reviewers for their careful reading and helpful comments.

⁽¹⁾ See e.g. WEBER (1997: 613 with bibl.); SUNDERMANN (1989: 144 f.); SKJÆRVØ (2009: 201). The abbreviation MP (Middle Persian) refers to Middle Persian in general, but when necessary Pahl. (Middle Persian of the Zoroastrian Pahlavi Books) and InscrMP (Inscriptional Middle Persian) are distinguished. Further abbreviations are: ManMP (Manichaean Middle Persian), ManParth. (Manichaean Parthian), MIr. (Middle Iranian), NP (New Persian), OIr. (Old Iranian), OP (Old Persian), Arab. (Arabic), Arm. (Armenian), Syr. (Syriac), Gk. (Greek), Talm. Aram. (Talmudic Aramaic).

This sonorization is generally not represented in the archaizing Pahlavi script, and is deduced from the comparison with the Manichaean Middle Persian and New Persian outcomes, and the parallel traditions. As a consequence, MACKENZIE transcribes as voiced all the Old Iranian voiceless plosives for which the voicing is witnessed by the corresponding forms in Manichaean Middle Persian, or yields a voiced outcome in New Persian, if in internal position, or \emptyset , if in final position, for example MP *nāmag* ⟨n`mk⟩ ‘book, letter’, ManMP *n`mg*, NP *nāma* ⁽²⁾.

According to the traditional view, the voiceless plosive is preserved in Middle Persian in some particular contexts, for instance in loanwords from other languages (e.g. *šakar* ‘sugar’) or from different Iranian varieties (mainly learned loanwords from Avestan, e.g. *ātaxš* ‘fire’); in some cases when the final voiceless plosive occurs at morpheme boundaries (e.g. *a-pus* ‘childless’); in the presence of gemination (e.g. *pattüg* ‘enduring’); or in words that have undergone particular kinds of phonetic changes, such as the loss of a preceding short *-a-, as in MP *ēk* ‘one’ (< OIr. **aiwaka-*, cf. OP *aiwa-*), *nēk* ⟨nywk⟩ ‘good, beautiful’ (ManMP *nēk* ⟨nyk, nyq⟩, NP *nēk* ‘id.’ < OIr. **naib(a)ka-*), *pāk* ‘clean, pure, holy’ (< OIr. **pavāka-*) ⁽³⁾.

Nevertheless, though the voicing of the Old Iranian voiceless plosives in Middle Persian greatly reduced the functional load of the opposition between voiced and voiceless plosives in internal and final position, Middle Persian still clearly shows a functional opposition of voiced and voiceless plosives even in final position.

The opposition is preserved not only by minimal pairs such as MP *sāg* ‘number’ - *sāk* ‘tribute’, MP *zardag* ‘yolk’ - *zardak* ‘safflower’, but also by the opposition between some velar suffixes, for example *-ag* and *-ak* (e.g. MP *andak* ⟨`ndk⟩ ‘little, few’; ManMP *andak* ⟨`ndk, `ndq⟩ adj., adv. ‘little, a little’, NP *andak*), and *-īg* and *-īk* (e.g. MP *nazdik* ‘near’; MP, NP *zandik* ‘heretic’), spelled identically in the Pahlavi writing of Middle Persian, but graphically distinguished in Manichaean Middle Persian. The same probably applies to *-ōg* and *-ōk* (although it is uncertain whether the latter is a suffix or not; the sequence appears in a few words, e.g. MP *dēwōk* ‘leech’;

⁽²⁾ MACKENZIE (1967: 20).

⁽³⁾ These are the most frequent examples of this phenomenon: see e.g. WEBER (1997: 613); SKJÆRVØ (2009: 201), but the antecedent of MP *pāk* ‘clean, pure, holy’ is, in my opinion, OIr. **pavāka-*, not **pāw(a)ka-*, as suggested by Weber, and it is consequently impossible to claim the loss of a preceding short *-a-; KLINGENSCHMITT (2000: 213) suggests a very debatable explanation, namely: *pāk* < **pāhk* < **pahāki* < **paūākəh*, cf. OInd. **pavākā*.

MP, NP *takōk* ‘drinking vessel’, all of unclear etymon). There are further adjectival suffixes ending in *-k* (< OIr. **-ka-*), which do not undergo sonorization, for example *-uk* (e.g. MP *sabuk* ‘light, easy’, *nāzuk* ‘tender, gentle; fickle’, *tanuk* ‘thin, swallow’), where the voiceless final plosive is represented in Manichaean script and preserved in New Persian, and often confirmed by parallel traditions. Finally, WEBER (1997: 613) observes that the retention of MP medial *-k-* in words like *cakōk* ‘lark’ is unclear, and he hints at unspecified “semantic reasons” that may have played a role here as well as in the diminutive suffix *-ak*.

As WEBER himself admits, this voicing of the Old Iranian voiceless plosives in internal and final position still shows many unclear details.

The aim of this paper is to analyse some of these unclear details as regards the voicing of the Old Iranian velar voiceless plosive in postvocalic position.

It is generally assumed that all the Old Iranian voiceless stops were voiced in Middle Persian at the same time. I believe, on the contrary, that the voiceless velar stop underwent voicing long after the other two plosives. In my opinion, this hypothesis, which has already been put forward by some scholars, can be strengthened by considering the parallel tradition represented by the Middle Persian loanwords in Talmudic Aramaic and Syriac, evidence that has never been taken into account so far.

In the following I will consequently analyse the evidence of the voicing of OIr. **-k-* (§ 2) and of its delay (§ 3), in particular: the Greek versions of the Sasanian inscriptions (§ 3.1), the outcomes of OIr. **-k-* in New Persian and Middle Persian (§ 3.2), the Manichaean texts and their writing system (§ 3.3), and finally the Middle Persian loanwords in Talmudic Aramaic and Syriac (§ 3.4).

2. THE VOICING OF OIR. **-k-*

Like the other two voiceless stops, the sonorization of OIr. **k* can be substantially deduced from (1) the Manichaean script, (2) the outcomes in New Persian, and (3) parallel traditions. Another piece of evidence of the fact that OIr. **-k-* in Middle Persian reaches the voiced stage *-g* in final position is the rendering *-ğ* in early Arabic loanwords from Middle Persian, for example Arab. *numūdağ* ‘pattern’ ← MP *nimūdag* ‘indicated’ (cf. NP *numūda*): MP *-g* is represented in those loanwords by *ğ*, because — as PIŚOWICZ (1985: 141) underlined — the grapheme *ğ* represents a phonic

realization which is “in accord with dialectal Arabic pronunciation (e.g. that of Egypt)”, which in its turn reflects the actual origin of the Arabic pre-palatal voiced affricate /ǧ/ (IPA [dʒ]) from Proto-Semitic *g⁽⁴⁾.

Other parallel traditions also testify that OIr. *-k- develops into MP -g in final and postvocalic position. An example is Armenian, where (though rarely) late loanwords from Middle Persian have final -g (e.g. Arm. LW *karag* ‘butter’, cf. NP *kara*; Arm. LW *porag* ‘borax’, cf. NP *būra* and *būrak*, Syr. LW *burk*)⁽⁵⁾.

A parallel tradition that could attest to the voicing of OIr. *-k- would be the Iranian loanwords in Greek. These loanwords, however, are not easy to evaluate as far as the chronology of the voicing is concerned. It is known that the first certain evidence of the voicing of the Old Iranian voiceless stops in postvocalic position dates back to the 3rd cent. AD; moreover, the voicing of the velar stop underwent this change later than the two other plosives, as I will try to demonstrate in the present paper. Nevertheless, the Iranian loanwords in Greek seem to point to a puzzling situation. In particular, as already underlined by MANCINI (1987: 53 f.), in a period much earlier than the 3rd cent. AD we find, beside loanwords attesting the expected situation (e.g. δανάκη ← OIr. **dānaka*-, in Callimachus, 3rd cent. BC), also some Iranian loanwords already showing the voicing of the velar plosive, as for example πιάγας ‘leprous’ in Ktesias (4th cent. BC) ← OIr. **pēsaka*- and (α)διγανες ‘magistrates’ in Polybius (2nd cent. BC) ← OIr. **dahyukāna*⁽⁶⁾. It is probable that we are dealing here, as suggested by MANCINI (1987: 53 fn. 74), with a phenomenon of lexical diffusion of the change towards the voicing of the Old Iranian voiceless stops, but it seems to me that these Iranian loanwords in Greek still need to be studied more systematically in the future.

Further indication about this voicing and the period in which it took place are to be found in Iranian loanwords in Talmudic Aramaic and Syriac. The data provided by these two Middle Aramaic parallel traditions are particularly relevant, and will be considered below (§ 3.4). It may be anticipated here that only a small group of Iranian loanwords in Talmudic Aramaic

⁽⁴⁾ Compare, for example, Arab. *ǧāmāl* ‘camel’ with Hebrew *gāmāl* ‘id.’. See PIŚOWICZ (1985: 141); VERSTEEGH (2014: 24); GARBINI & DURAND (1994: 79). A very useful table of the regular correspondences of the Proto-Semitic consonants in the historical Semitic languages is in KOGAN (2011: 55).

⁽⁵⁾ PIŚOWICZ (1985: 141); CIANCAGLINI (2008: 123).

⁽⁶⁾ Cf. MANCINI (1987: 54). Note that both these loanwords are also attested in Syriac, many centuries later, in the forms respectively of **pysky** ‘spotted’ and **dhqn** ‘chief of a village’, namely with the velar stop yet unvoiced: see CIANCAGLINI (2008: 232 and 148).

shows final *-g* in correspondence to MP *-g*, and TELEGDI (1935: 190 f.) supposes these loanwords to be only occasional quotations of foreign words, not real loanwords. In Syriac, where the number of Iranian loanwords is more conspicuous and they are generally borrowed later than those in Talmudic Aramaic, it happens more frequently that MP *-g* is reflected by Syr. *-g*.

Nevertheless, there is enough evidence to assume that the voicing of OIr. **-k-* arises later than that of the other two voiceless stops.

3. EVIDENCE FOR THE DELAYED VOICING OF OIR. **-k-*

3.1. *The Greek versions of the Sasanian multilingual inscriptions*

The first piece of evidence of the delayed voicing of OIr. **-k-* in postvocalic position is the fact that in the renderings of the Middle Persian words containing the outcomes of the OP suffixes *-a-ka-*, *-i-ka-*, these suffixes are consistently spelled as *-ακ*, *-ικ* in the Greek versions of the 3rd cent. Sasanian multilingual inscriptions (7). The rendering with Gk. *-κ* is without exception in final position, while in internal position it oscillates between Gk. *-κ* (e.g. *Ζαβρικαν* for MP *Zabrigān*, pr. n.: HUUSE 1999: 2.148) and Gk. *-γ* (e.g. *Βανδιγαν* ‘son of Bandag’: HUUSE 1999: 2.178). On the other hand, as regards MP *b* (< OIr. **-p-*) and MP *d* (< OIr. **-t-*), also in final position the Greek rendering oscillates between the voiced and voiceless stops. See the following examples:

- the proper name MP *Šābuhr* in the Greek version of the trilingual inscription of Šābuhr I at the Ka‘ba-i Zardušt (ŠKZ) is rendered as *Σαπωρης* as well as *-σαβωρ*, in the compound name *Ἀβουρσαμσαβωρ* (8);
- the proper name MP *Pābag* < OIr. **Pāpaka-* is rendered in ŠKZ with Gk. *Παπακ*, but also *Παβακ*; always *Παπακου* in other smaller inscriptions (9);
- the suffixoid MP *-bed* ‘lord, master’ < OIr. **-pati-*, in the Greek version of ŠKZ is rendered in four different ways, namely:
 - 1) *-πτ*, e.g. *διβιρουπτ* for MP *dibīrbed* ‘chief of the scribes’ < OIr. **dipīra-pati-*; *ἄζαροπτ* for MP *hazārbed* ‘chiliarc’ < OIr. **hazāra-pati-*;

(7) Cf. PISOWICZ (1985: 139); BACK (1978: 162).

(8) HUUSE (1999: 2.5; 168).

(9) HUUSE (1999: 2.14; 151; 171); HERZFELD (1924, 1; 84; 86).

- 2) -πιτ, e.g. σπαπιτου Gen. for MP *spāhbed* ‘general, commander’ < OIr. **spāda-pati*;
- 3) πιδ, e.g. ἀσπιτιδου Gen. for MP *aspbed* ‘chief of the cavalry’ < OIr. **aspapati*;
- 4) βιδ, e.g. ἀνδαρζαβιδ for MP *handarzbed* ‘counsellor’ < OIr. **hamdarza-pati* ⁽¹⁰⁾.

These latter fluctuations are a cue that the voicing has already taken place in the spoken language and that the scribe is unable to always master the archaizing correct spelling; but the fact that MP final *-g* from postvocalic OIr. **-k-* is regularly spelled *-κ* in the Greek version of these trilingual inscriptions suggests that in the 3rd cent. AD the voicing did not yet affect the velar plosive.

3.2. *New Persian*

It has never been sufficiently emphasized that, indirectly, the delay of the voicing of OIr. **-k-* can also be deduced from the great variation in the outcomes of this phoneme in New Persian, in internal and in final postvocalic position, which is only partially explainable through dialectal variability in the time of the voicing of the velar plosive. On the other hand, no similar variability is to be observed with the other two plosives.

According to PISOWICZ (1985: 139 f.), in final position, beside its loss, as for instance in NP *nāma* < MP *nāmag* < OP **nāmaka-*, OIr. **-k-* shows six additional outcomes, namely *-g*, *-k*, *-γ*, *-x*, *-y*, and *-h*.

In particular, PISOWICZ lists three New Persian outcomes in intervocalic position, and seven in postvocalic final position, namely:

- intervocalic position: *-g-* (e.g. *āgāh* ‘conscious’ < OP **ākāθa-*); *-γ* (e.g. *taγār* ‘trough’, cf. Arm. LW *takar*); *-k-* (e.g. *čakād* ‘forehead’, cf. Arm. LW *čakat*);
- postvocalic final position: *-∅* (e.g. *zarda* ‘yolk’ < MP *zardag*); *-g* (e.g. *sōg* ‘mourning’); *-k* (e.g. *zardak* ‘safflower’, MP id.); *-γ* (e.g. *rēγ* ‘enmity’ < OP *arāika-*) ⁽¹¹⁾; *-x* (e.g. *zanax* ‘chin’ < OP **zanaka-*); *-y* (e.g. *jāy* ‘place’

⁽¹⁰⁾ See HUYSE (1999: 2.139 ff.; 133 ff.; 138 ff.; 155; 164 f.).

⁽¹¹⁾ But this Old Persian word is to be read *arika-* ‘hostile, treacherous, unfaithful’, as suggested by MAYRHOFER (1992-2001, 1: 128) and SCHMITT (2014: 136); cf.

< MP *gyāg*); *-h* in some instances of the suffix *-āh* (e.g. *dībāh* ‘brocade’ < MP *dēbāg*) or in final sequences in which *-āh* is formed by the long vowel of the stem and *-h* < **k*, for example *siyāh* ‘black, dark’ < OIr. **syāwa-ka-* (OIr. **syāwa-* < PIE **k^hye_h-*)⁽¹²⁾.

As a matter of fact, if we consider the Middle Persian outcomes of the Old Iranian suffix **-ka-*, OIr. **-k-* shows many different continuants, namely *-g*, *-k*, *-x*, *-h*, and \emptyset .

See the following examples:

nāmag ‘book, letter’ < OP *nāmaka-*;

nēk ‘good, beautiful’ < OIr. **naib(a)ka-*;

sūrāx ‘swl’ h’ (and *sūrāg*) ‘hole, burrow’ < OIr. **sūrāka-* (cf. Young Avestan *sūra-*, PIE **kuH-r-/*kuH-n-*)⁽¹³⁾;

andōh ‘ndwh’ (and *andōg*) ‘sorrow’ < OIr. **ha(n)dawa-ka-*;

siyā ‘syd’ ‘black, dark’ < OIr. **syāwa-ka-*⁽¹⁴⁾.

Such variability in Middle and New Persian leads us to exclude the possibility that the Old Iranian voiceless velar plosive underwent a general and systematic voicing process in Middle Persian.

It is therefore appropriate to come back to Manichaean Middle Persian to evaluate the incidence of sonorization and its consequences for the phonological interpretation of the Middle Persian writing of the Pahlavi Books.

also Buddh. Sogd. *ryk* ‘bad, evil’; NP *ārīy* ‘aversion, abhorrence, hatred’ (STEINGASS 1892: 40).

⁽¹²⁾ The final *-h* of NP *siyāh* ‘black, dark’ is an outcome of an older suffixal **-k* and probably traces back to OIr. **syāwa-ka-* (cf. Av. *siiāua-*, and OInd. *śyāva-ka-*, proper noun, both from PIE **k^hye_h-wó-*; cf. MAYRHOFER 1992-2001, 2: 661). The velar suffix is witnessed by ManParth. *syāwag* ‘sy’wg’ adj. and n. ‘black; blackness, nightmare’, attested along with the form without the velar suffix, namely ManParth. and ManMP *syāw* ‘sy’w’ adj. ‘black’ (DURKIN-MEISTERERNST 2005: 311 f.), whereas the MP form *siyā* (or *syā* ‘syd’) in MACKENZIE’S reading: see 1971: 78) may be considered the continuation of an otherwise unattested Iranian form without suffixes (< PIE **k^hye_h-*) or, more plausibly in my opinion, an early \emptyset outcome of the velar suffix. This outcome would be traced back to a previous MP **siyāg*, since this latter form is attested, according to HÜBSCHMANN (1895: 245) and HORN (1898: 175), who mention Pahl. *siyā-k*. This latter form is not recorded in NYBERG (1974) or MACKENZIE (1971), though ‘syd’k is attested in *Zand-ī Wahman Yasn* 4,4 as a *varia lectio* in the ms. K20.

⁽¹³⁾ Cf. MAYRHOFER (1992-2001, 2: 650).

⁽¹⁴⁾ On this topic see CIANCAGLINI (2015).

3.3. *The Manichaean texts and writing system*

Scholars who hold that in the 3rd cent. AD the voicing of OIr. *-k- is already accomplished rely almost exclusively on the data provided by Middle Persian texts written in Manichaean script, in which -g is represented as ⟨g⟩ and -k as ⟨k⟩ (or as ⟨q⟩). It is generally assumed that the sonorization of the Old Iranian voiceless stops *p *t *k in postvocalic position is a shared innovation of Western Middle Iranian, graphically attested only in Manichaean texts (with some exceptions, for instance ManParth. *zryq* vs. ManMP *zryg*, MP *zarig* ‘sorrow, grief’). As a consequence, on the basis of the Manichaean Parthian orthography it has been suggested that also in Parthian this voicing was already accomplished in the 3rd cent. AD, although this voicing is not recorded in the Parthian versions of the Sasanian royal inscriptions or in the Armenian loanwords from Parthian.

Furthermore, the bulk of the Manichaean Middle Persian texts chronologically antedates the Zoroastrian Middle Persian ones and bears witness to Middle Persian as spoken in the early Sasanian centuries. According to many scholars, Manichaean Middle Persian is therefore exactly the same linguistic variety as the Middle Persian of the 3rd century AD, only with the advantage of being written in a nearly phonetic, unambiguous way, undisturbed by any kind of heterograms or historical spellings that characterize Pahlavi orthography⁽¹⁵⁾.

However, on closer inspection, the Manichaean script is not as reliable as is generally believed for the reconstruction of the phonological system of Middle Persian.

Manichaean Middle Persian, though surely close to the Fārs dialects (as argued already by TEDESCO 1921: 249 f.), shows some phonological and morphological differences if compared to the Middle Persian attested in the older inscriptions or in the Pahlavi literature. Some of these differences are explainable by the fact that Middle Persian in the course of time becomes a kind of koiné, having acquired a great number of northwestern elements⁽¹⁶⁾; a few other phonological features, like the nonstandard development *hr-* < *fr-*, have been attributed to the influence of a third western dialect, different from both Parthian and Middle Persian, and which

⁽¹⁵⁾ MACKENZIE (1967: 18); SUNDERMANN (1989: 139); TEDESCO (1921: 249 f.); SKJÆRVØ (2009: 200); WEBER (1997: 603); PISOWICZ (1985: 133); DURKIN-MEISTER-ERNST (2014: 9-11; 114); MAGGI & ORSATTI (2018: 17).

⁽¹⁶⁾ MACKENZIE (1967: 18 f.); SUNDERMANN (1989: 139).

is sometimes called Middle Median ⁽¹⁷⁾. Some of these phonological and morphological differences are still unexplained (SUNDERMANN 1989: 139).

Among the differences that can be observed comparing the derivatives with velar suffixes in both varieties are the following:

- a) Manichaean Middle Persian (and Manichaean Parthian as well) does not seem to admit initial consonantal clusters such as *st-*, *sp-* etc.; compare, for example, MP *stārag* vs. ManMP *istārag*; MP *stambag* vs. ManMP *istambag*; MP *sprahmag* vs. ManMP, ManParth. *isprahmag*. According to DURKIN-MEISTERERNST (2014: 119), the prothetic vowel was simply not recorded in Zoroastrian and inscriptional Middle Persian writing, but was realized in the spoken language. However, it is noticeable that it is never recorded in Pahlavi writing, while we would expect at least some mistake if this vowel was really present in speech.
- b) In Manichaean Middle Persian the final implosive stop already seems lost, given that much more frequently than in Zoroastrian Middle Persian there are scribal errors of the kind ⟨-yg⟩ for ⟨-yh⟩ or vice versa, for instance ManMP *frāydānišnīh* ‘greater knowledge’ written ⟨pr’y d’nyšnyg⟩; moreover, very often in Manichaean Middle Persian we find the writing ⟨-yy⟩, or even ⟨-y⟩, instead of ⟨yh⟩ for abstract nouns: see, for instance, ManMP *dōšāramīh* ‘love, gentleness’, which has all the written variants ⟨dws’ rmyh⟩, ⟨dws’ rmyy⟩, ⟨dws’ rmy⟩; ManMP *dōstīh* ‘friendship’, written ⟨dwsy⟩ etc.
- c) In Manichaean Middle Persian the assimilation of the internal consonantal clusters *-nd-*, when heterosyllabic, seems much more frequent than in Zoroastrian Middle Persian, as in MP *bandag* vs. ManMP *ban-nag* (cf. DURKIN-MEISTERERNST 2014: 114, where the assimilation is attributed to Middle Persian in general).

Nevertheless, although we share the common opinion that Manichaean Middle Persian coincides with the early stage of Middle Persian, which is still almost untouched by northwestern influences, it must be emphasized that the Manichaean texts were written during a time span of many centuries, from the 3rd to the 8th century AD, and that the manuscripts are much later (SKJÆRVØ 2009: 197): in such a long period of time it is almost

⁽¹⁷⁾ Further examples of differences between Manichaean Middle Persian and Middle Persian, mentioned by TEDESCO (1921: 246), are dismissed as unconvincing by SUNDERMANN (1989: 139 fn. 12).

certain that the language undergoes phonetic changes. As far as spelling is concerned, HENNING (1958: 73 f.) observes that the Manichaean script does not change significantly in the course of time, and this is paralleled by SUNDERMANN'S observation (1989: 143) that even the Manichaean script features historical spellings: all writing systems that used for a long time without spelling changes are destined to become archaizing in face of the spoken language, which changes more quickly.

An excellent tool to understand the peculiarities of the Manichaean writing system is the recent monograph by DURKIN-MEISTERERNST (2014), who deals at length with the question of the historical spellings (2014: 40 ff.). As far as our topic is concerned, the relevant feature of the Manichaean script is the use of the graphemes indicating the velar and dental stops, namely ⟨k⟩, ⟨q⟩, ⟨g⟩, and ⟨t⟩, ⟨ϕ⟩, ⟨d⟩⁽¹⁸⁾.

DURKIN-MEISTERERNST (2014: 40 ff.) reports that, among the aforementioned graphemes, 4 are unambiguous and represent only a voiceless or a voiced consonant; these graphemes are: ⟨k⟩ = /k/, ⟨g⟩ = /g/, ⟨t⟩ = /t/, ⟨d⟩ = /d/. On the other hand, ⟨q⟩ and ⟨ϕ⟩ are ambiguous, because they may represent either a voiceless or a voiced stop, namely ⟨q⟩ = /k, g/; ⟨ϕ⟩ = /t, d/. This situation is summarised in the table below:

⟨k⟩ = /k/, ⟨g⟩ = /g/, ⟨t⟩ = /t/, ⟨d⟩ = /d/
 ⟨q⟩ = /k, g/; ⟨ϕ⟩ = /t, d/

In the Manichaean writing system the graphemes representing emphatic consonants are not used with the same values as they show when employed to represent Aramaic varieties. Indeed, a very useful specification provided by DURKIN-MEISTERERNST (2014: 41 f.) is that in the Manichaean writing system, notwithstanding its Aramaic character, ⟨t⟩ never represents the allophonic realization of the dental voiceless plosive: Man. ⟨t⟩ and ⟨ϕ⟩, when used to represent Ir. /t/, are consequently to be considered only as graphic alternative forms, and the same can be said about ⟨k⟩ and ⟨q⟩, when used to represent Ir. /k/. That these graphemes do not correspond to a different phonetic realization is proven by the fact that they freely alternate also in initial position, e.g. ⟨t'ryg⟩ and ⟨ϕ'ryg⟩ for Man-

⁽¹⁸⁾ DURKINMEISTERERNST (2014) transliterates ϕ the Manichaean symbol corresponding to the Semitic dental emphatic plosive, which is transcribed as ϕ by HENNING (1958) and SKJÆRVØ (2009). He also transliterates ϕ, and not ϕ, the Manichaean grapheme corresponding to Aramaic ϕ (while Manichaean ϕ formally traces back to Aram. ϕ).

MP, ManParth. *tārīg* ‘dark’; ⟨kdg⟩ and ⟨qdg⟩ for ManMP, ManParth. *kadag* ‘house, home’; ⟨qndwg⟩ and ⟨kndwg⟩ for ManParth. *kandūg* ‘pot, storage, jar’ (19). DURKIN-MEISTERERNST (2014: 40) holds that the fluctuation between these graphemes is partly due to aesthetic reasons, as already suggested by HENNING (1958: 75): Manichaean writing avoids hyphenation and fills the rows uniformly, through the lengthening or shortening of the normal writing of the words; for this purpose vocalic graphemes are added or deleted (and substituted by double dots), and longer letters are used for shorter ones, such as ⟨q⟩ for ⟨g⟩.

However, it is noteworthy that ⟨q⟩ and ⟨ϕ⟩ alternate with the graphemes ⟨g⟩ and ⟨d⟩, and consequently represent voiced stops, only in final position. See the following examples:

⟨bwϕ⟩ - ⟨bwd⟩, for ManParth. *būd*, part. pass. of *baw* ‘to become, be’ (20);
 ⟨h’m’q⟩ - ⟨h’m’g⟩ for ManMP, ManParth. *hāmāg* ‘all, whole’ (21);
 ⟨frystg, prystg⟩ - ⟨prystq⟩ for ManMP *frēstag* ‘messenger, apostle, angel’ (22).

In final position, ⟨q⟩ and ⟨ϕ⟩ are ambiguous because they may represent either the voiced or the voiceless corresponding plosive; as regards our topic, ⟨q⟩ represents the voiceless velar stop in for instance ⟨’ndq⟩ for ManMP, MP, NP *andak* ‘little, few’, in ⟨p’q⟩ alternating with ⟨p’k⟩ for ManMP, MP, NP *pāk-* ‘pure, holy’, etc.

Given that the Manichaean writing system would have the unambiguous alternative of using ⟨g⟩ or ⟨d⟩ in final position instead of the ambiguous ⟨q⟩ and ⟨ϕ⟩, and given that this fluctuation occurs only in final (and sometimes internal) position, namely in the positions where the Old Iranian voiceless plosives underwent voicing, DURKIN-MEISTERERNST (2014: 42) concludes that at the time of the fixation of the Manichaean orthography the Old Iranian voiceless stops **k* and **t* were not yet voiced in internal and final position (23). This opinion was already put forward by HENNING (1958: 75), who suggested that in the Middle Iranian dialects used by the

(19) See DURKIN-MEISTERERNST (2004: 322; 204).

(20) DURKIN-MEISTERERNST (2004: 113).

(21) DURKIN-MEISTERERNST (2004: 173). As for the etymon, see MAYRHOFER (1992-2001, 2: 702 f.).

(22) DURKIN-MEISTERERNST (2004: 159 f.).

(23) DURKIN-MEISTERERNST (2004: 42): “[...] deutet dies daraufhin, daß zur Zeit der Festlegung der manichäischen Schrift die einfachen stimmlosen Laute *k*, *t* und *č* noch nicht inter- und postvocalischstimmhaft geworden waren”.

Manichaeans in the 3rd century AD the change of the voiceless stops into voiced ones was not yet complete.

DURKIN-MEISTERERNST (2014: 42) also concludes that the Manichaean writing shows historical spellings. This is especially proven by the use of the graphemes ⟨q⟩, ⟨ḡ⟩ and ⟨c⟩ to indicate respectively /g/, /d/, /z, ž/, a use that occurs not only in Manichaean Middle Persian and Parthian, but also Manichaean Sogdian⁽²⁴⁾. As regards the Manichaean historical spelling, DURKIN-MEISTERERNST (2014: 97) points out many cases in which the Manichaean script is influenced by Sogdian orthographic rules; a possible case is the Manichaean spellings ⟨rt⟩ and ⟨rk⟩, for instance in ManParth. *murt* and *trkwm'n*: it is uncertain whether these forms represent *murt* / *tarkumān* or *murd* / *targumān*. He rightly observes that in these forms the hypothesis of a historical spelling for /d/ and /g/ would be little justified, also because we would rather expect to find ⟨ḡ⟩ and ⟨q⟩, whereas in *trkwm'n*, for example, the spelling with ⟨k⟩ is more frequent than that with ⟨q⟩; it is more probable that we are dealing here with a Sogdian orthographic convention. To Sogdian orthographic convention he also attributes, for instance, sporadic writing such as ⟨tybhr̥g⟩, with the sign for the voiceless dental in the Parthian adjective normally spelled ⟨dybhr̥g⟩ *dēbarag* 'banished'. In order to account for this form, he refers in his *Dictionary* (DURKIN-MEISTERERNST 2004: 149) to the possibility of a Sogdian scribe.

In any case, we can argue that Manichaean script cannot be considered to be an absolutely reliable witness or, even less so, a kind of "phonetic transcription" of the linguistic stage of 3rd cent. AD Middle Persian.

That Manichaean Middle Persian cannot be consistently used as a kind of phonetic transcription of the archaizing Pahlavi script of Middle Persian is also proven, in my opinion, by those cases in which Manichaean Middle Persian (or sometimes Manichaean Parthian) has a final -g but New Persian retains the voiceless velar plosive. This seems to bewilder MacKenzie in his transcription choices; see the following examples:

MP *tāriḡ/k* ⟨t'lyk'⟩ 'dark'; ManMP *t'ryg*; NP *tārik* (MACKENZIE 1971: 82; DURKIN-MEISTERERNST 2004: 322);

MP *paristōḡ/k* ⟨plstwk'⟩ 'swallow'; ManMP *prstwg* (DURKIN-MEISTERERNST 2004: 279 reads *parrastōḡ*); NP *piristū*, *piristūk*, *piristuk* (MACKENZIE 1971: 65);

(24) HENNING (1958: 75); SALEMANN (1908: 152 f.); as regards Sogdian, see SIMS-WILLIAMS (1989: 177).

MP *nāzūk* ⟨n'cwk'⟩ 'tender, gentle; fickle'; ManMP, ManParth. *nāzūg* ⟨n'zwg⟩; NP *nāzūk* (MACKENZIE 1971: 58; DURKIN-MEISTERERNST 2004: 239) ⁽²⁵⁾;
 MP *kanīzag* ⟨knyck'⟩ 'girl', ManMP *kanīzag* ⟨qnycg, qnyygc⟩, ManParth. *kanīzag* ⟨qnycg⟩, NP *kanīzak* (and *kanīz*) (MACKENZIE 1971: 49; DURKIN-MEISTERERNST 2004: 206);
 MP *ramag* ⟨dmk'⟩ 'herd, flock', ManParth. *ramag* ⟨rmg⟩, NP *ramak* (lex.) and *rama* (MACKENZIE 1971: 70; DURKIN-MEISTERERNST 2004: 296; NP *ramak* is recorded only in the *Borhān-e Qāte*), Arm. LW *eramak*;
 MP *anāg* ⟨n'k'⟩ 'evil, unhappy', ManMP *anāg* ⟨n'g'⟩, NP *nāk* 'adulterated' (MACKENZIE 1971: 8; DURKIN-MEISTERERNST 2004: 43).

A similar case, even in the absence of the Manichaean correspondent form, is MP *bārīg/k* 'thin, fine', NP *bārīk* and *bārik* (MACKENZIE 1971: 17).

Given the fact that in a significant number of cases New Persian contrasts with Manichaean Middle Persian, the phonetic realization of the corresponding Middle Persian words cannot be considered as certain, and this is probably what induced MacKenzie to adopt a double transcription for the first two words. In my opinion it is at least possible that in all these cases Middle Persian also preserves the final voiceless plosive.

However, as regards this point, the Manichaean writing does not prove in an indisputable way the delay of the voicing of OIr. **-k-* in post-vocalic position in comparison with the other two voiceless plosives, because the fluctuation in final and postvocalic position does not concern only the velar stops, but also the dental ones (the labial stops are excluded probably only because the Manichaean writing, being an Aramaic script variety, lacks a grapheme representing the emphatic labial stop: see DURKIN-MEISTERERNST 2014: 42 fn. 31). In other words, if we consider the fluctuation as evidence of the delayed voicing of the corresponding consonants, then the Manichaean script would indicate a delayed voicing not only of OIr. **-k-*, but also of OIr. **-t-*, as well as the affricate **-c-*. But this seems unlikely, and that this fluctuation should be differently explained is also proven by the fact that the same fluctuation occurs also in the outcomes of the OIr. clusters **-nk-*, **-rk-*, where the velar stop was voiced very early and surely was voiced in the epoch of the Manichaean texts (the voicing of OIr. **-k-* in **-nk-* dates to the Late Old Persian period, in

⁽²⁵⁾ CANTERA (2009: 19 and fn. 5), however, holds that we are dealing here with two different formations: MP, NP *nāzūk* < **nācūkakahl-am*; ManMP *nāzūg* ⟨n'zwg⟩, NP *nāzu* < **nācūwakahl-am*.

-rk- probably to the Early Middle Persian: cf. BACK 1981: 179): see e.g. ManMP, ManParth. ⟨wzrq⟩, alternating with ⟨wzrg⟩, for *wuzurg* ‘big, great’ (DURKIN-MEISTERERNST 2004: 360) ⁽²⁶⁾.

On the other hand, DURKIN-MEISTERERNST’s hypothesis (2014: 42) that at the time of the fixation of the Manichaean orthography the Old Iranian voiceless stops *k and *t were not yet voiced in internal and final position may raise some difficulties. In particular, we do not know enough about the origin of the Manichaean writing system, and it is not even clear to what extent Mani and his environment knew Middle Persian or Parthian. Furthermore, there is no solid evidence that this script was used before the 3rd cent. AD to represent Iranian linguistic varieties older and different from that included in the Manichaean texts (see DURKIN-MEISTERERNST 2014: 36 ff.).

On the other hand, although the fluctuation between ⟨ϕ⟩, ⟨ϑ⟩ and ⟨k⟩ ⟨q⟩ to indicate the voiceless plosives is surely often due also to aesthetic reasons, since these redundant graphemes were useful in filling the rows, it is difficult to conclude that the aesthetic reason is the only one involved when ⟨ϕ⟩ and ⟨q⟩ instead of ⟨g⟩ and ⟨d⟩ occur in postvocalic position.

Another possible hypothesis is that the Manichaean script reflects a linguistic western Middle Iranian variety different from Middle Persian and Parthian, in which the Old Iranian phonological system underwent changes different from those observable in Middle Persian and Parthian.

Be that as it may, the Manichaean writing does not represent exactly the stage reached by Middle Persian and Parthian in the 3rd cent. AD and does not clearly witness the delay in the voicing of OIr. *-k- in postvocalic position.

3.4. *Talmudic Aramaic and Syriac as parallel traditions regarding the lenition of MIr. *-k*

It has never been explicitly observed that an important piece of evidence as regards the delay of the voicing of OIr. *-k in postvocalic position

⁽²⁶⁾ Note that also the opposite case is attested: the writing ⟨nsg⟩, in addition to ⟨nsk⟩ and ⟨nsq⟩, for ManParth. *nask* ‘bunch, bouquet’ hardly represent a final voiced velar stop (though DURKIN-MEISTERERNST (2004: 245) offers both the transcriptions *nask* and *nasg*): the voicing of final -k after a voiceless sibilant is highly improbable for phonetic reasons and I believe that we are only dealing with a scribal error here.

is provided by the parallel traditions represented by Talmudic Aramaic and Syriac, where we find loanwords from Middle Persian in which the velar stop, unlike the other two plosives, is consistently not yet voiced. An example is Syr. *mwrđk* 'litharge, dross of silver', borrowed from MP *murdag* 'dead' (recorded only in NYBERG 1974: 134, according to his transcription as *murtak*), cf. ManMP, ManParth. *murdag* ⟨mwrđg⟩ 'dead, corpse' (DURKIN-MEISTERERNST 2004: 233): this Syriac word must have been borrowed from its Middle Persian model when it was in the phase *murdak*, that is, with the final velar stop still unvoiced but with the dental one already voiced. That this word is borrowed directly from Middle Persian and is not inherited from older varieties of Eastern Aramaic is proven by the fact that in Talmudic Aramaic this loanword appears in the form *mwrtk* 'litharge, dross of silver', which points to a more ancient phonological shape of the same MP word⁽²⁷⁾. Similar cases are Syr. *spydk* 'white lead, ceruse', borrowed from MP *spēdag* 'white'⁽²⁸⁾, and Syr. *prdq* 'hunter's tent', from MP *pardag* 'veil, curtain'⁽²⁹⁾. The date of these borrowings in Syriac cannot be ascertained with precision, but it is surely later than the 4th century AD (whereas the Iranian borrowings in Talmudic Aramaic are generally older, dating from the 2nd to the 4th cent. AD).

It is usually claimed that in the Iranian loanwords in Talmudic Aramaic (more precisely, in Jewish Babylonian Aramaic, the language of the Babylonian Talmud) and Syriac, as well as in the Manichaean script when it is used to transcribe Middle Persian, the letters ⟨q⟩ and ⟨k⟩ freely alternate in the rendering of Ir. *-k-⁽³⁰⁾. This is not entirely true: though the writing systems are almost the same, the internal forms or, put differently, the principles of operation, are very different. In the Middle Iranian loanwords occurring in Talmudic Aramaic and Syriac the use and distribution of the graphemes indicating voiceless and voiced stops, as well as their emphatic correspondents do not coincide with the Manichaean script, in which the fluctuation between these graphemes still lacks a univocal explanation.

As is well-known, ⟨q⟩ and ⟨k⟩ represent different phonetic values in the writing systems of all of Middle Aramaic varieties: ⟨k⟩ represents the voiceless

⁽²⁷⁾ On this Syr. word and its semantic specialization see CIANCAGLINI (2008: 209); GIGNOUX (2011: 58).

⁽²⁸⁾ See CIANCAGLINI (2008: 211); compare Arm. LW *spitak* 'white' and the Syr. reborrowings *'spydk*' (from Early MP, or Parth., **ispēdak*) and *spydg* (from MP *spēdag*).

⁽²⁹⁾ See CIANCAGLINI (2008: 237).

⁽³⁰⁾ Cf. TELEGI (1935: 190); CIANCAGLINI (2008: 71).

velar stop, ⟨q⟩ the corresponding emphatic consonant, realized as a voiceless uvular stop in the Middle Aramaic varieties ⁽³¹⁾.

In order to anticipate a possible objection, it is necessary to add here a few observations about the plosives /b d g k p t/, which in many Aramaic varieties have the fricative allophones if they appear in internal and postvocalic position. As a matter of fact, in Syriac loanwords from Greek, the voiceless plosives are rendered by means of the signs of the correspondent emphatics (Gk. τ, κ → Syr. ⟨ϕ, ⟨q⟩), whereas the Greek aspirated plosives (which, at that time, had already evolved into the voiceless fricatives) are rendered with the signs of plain plosives (Gk. θ, χ → Syr. ⟨ṭ, ⟨k⟩); Gk. π and φ, on the other hand, are both rendered with Syr. ⟨p⟩. As a consequence, one might think that Syr. ⟨q⟩ instead of ⟨k⟩ only represents the plosive manner of articulation of MP postvocalic -g (< OIr. *-k-), regardless of its voicing. But in my opinion this can be ruled out, for the following reasons:

- a) in both Talmudic Aramaic and Syriac the Iranian voiced plosives /b, d, g/ are rendered, in all positions, with the correspondent Aramaic voiced plosives /b, d, g/ (TELEGDI 1935: 186-192; CIANCAGLINI 2008: 67-77). These Aramaic voiced stops generally display their fricative allophones in postvocalic position (but see below, in point d). If ⟨q⟩ were used to represent MP -g < OIr. *-k- with the aim of avoiding the possible fricative pronunciation of ⟨k⟩, then this should also have happened for postvocalic MP -d < OIr. *-t-, but this Middle Persian phoneme in Middle Aramaic loanwords is never represented by the emphatic ⟨ϕ⟩;
- b) in both Talmudic Aramaic and Syriac loanwords only the Iranian voiceless plosives /t/ and /k/, in postvocalic position, are rendered with the plosives ⟨ṭ, ⟨k⟩ or the correspondent emphatics ⟨ϕ, ⟨q⟩ (Ir. /p/ is always rendered as ⟨p⟩, in the absence in Talmudic Aramaic and Syriac writings of a grapheme indicating the emphatic labial stop, and of the corresponding phoneme);
- c) in particular, as far as the rendering of the Middle Persian outcomes of the Ir. suffixes *-Vka- / *-V-ka- is concerned, in both Talmudic Aramaic and Syriac the older loanwords from Iranian languages clearly have ⟨k⟩, while the more recent ones have ⟨q⟩;
- d) in Syriac, differently from other Middle Aramaic varieties, the presence of the fricative allophones of /b d g k p t/ is not entirely predictable,

⁽³¹⁾ Cf. DANIELS (1997: 133 f.); on the realization of the emphatic series in the Semitic languages, see HAUDRICOURT (1950: 49); CANTINEAU (1952: 91 ff.); MARTINET (1953).

because the frequent loss of the so-called *šawā mobile* leads to the phonologization of their fricative allophones, which contrast with plosives either in internal, or in final position. See, for instance, the following Syriac minimal pairs: *q̄talteh* ‘I killed him’ - *q̄talteh* ‘she killed him’; *ḥadūtā* ‘a subterranean store’ - *ḥadūtā* ‘joy’, etc. ⁽³²⁾.

Thus, the alternation of the letters ⟨q̄⟩ and ⟨k̄⟩ in the rendering of the Middle Persian outcome of Ir. *-k- must have a different explanation.

The first problem, however, is to determine which loanwords have been borrowed from Middle Persian and are true south-western forms: in fact, both in Talmudic Aramaic and Syriac, there are different layers of Iranian borrowings. The older ones are borrowed from Old Persian and entered those two Middle Aramaic languages through Official Aramaic. A second layer includes loanwords from Middle Iranian, borrowed during the Arsacid and Sasanian empires. Many of these loanwords display non-southwestern features and for the great majority of them a number of scholars have suggested Parthian origin in the Arsacid period. SHAKED correctly observes that such a hypothesis is in many cases difficult to defend on linguistic grounds alone ⁽³³⁾. Frequently, words that display Parthian phonetic features are also commonly employed in Middle Persian, a language that had become a koiné at an early stage. As regards Syriac, these words were probably borrowed from Middle Persian and not Parthian. A good example is Syr. **byspn** ‘messenger, postal courier’ ← Parth. *bayāspān*, a word also attested in Pahlavi (MACKENZIE 1971: 17: MP *bayaspān* «by’ sp’ n’» ‘messenger, envoy’), together with the south-western form *dayaspān* > *dēspān* ⁽³⁴⁾.

It is possible, on the other hand, that Syriac borrowed some Parthian words directly from Parthian and not through Middle Persian. This is more likely to have occurred if the Parthian words in question had not been absorbed into Middle Persian. But also in this case the loanwords were not necessarily borrowed into Syriac during the Arsacid period, because Parthian continued to exist as a language of culture and trade for a long time thereafter.

There are also Iranian loanwords which surely entered Syriac before the Sasanian era; they display north-western linguistic features and also occur in

⁽³²⁾ Cf. CIANCAGLINI (2008: 64 f.); MORAG (1962: 52); DANIELS (1997: 135 ff.).

⁽³³⁾ SHAKED (1987: 259 f.); see also MANCINI (1995: 85 f.); TELEGI (1935: 224).

⁽³⁴⁾ Cf. WIDENGREN (1960: 31 fn. 112). MACKENZIE (1971: 17) reads *bayaspān*, but the exact reading must be *bayāspān*: see SUNDERMANN (1998: 122 fn. 6 and 128 f.).

Mandaic, Jewish Babylonian Aramaic, and Armenian, but not in Persian. In this case it is probable that Syriac did not borrow them from Parthian in the Arsacid period but, more likely, merely inherited loanwords already existing in other Aramaic dialects, which either flourished before Syriac came into being or when it was still the local linguistic variety of Edessa. This should be the case, for example, with Syr. 'špz' 'ešpezzā 'house' ← Parth. *əspinž*, cf. MP *aspinj*, NP *sipanj*; Md. *špynz* 'špinzā; Talm. Aram. 'wšpz'; Arm. LW *aspinjakan*. The presence of the voiceless postalveolar fricative /š/ in all the Aramaic forms, which is surely a secondary phenomenon, proves that the word was not borrowed independently for each of the Aramaic varieties. This strengthens Telegdi's hypothesis that the word had already been acquired by Official Aramaic⁽³⁵⁾.

As a matter of fact, other loanwords which seem to go back to a Parthian model were borrowed into Aramaic at a time preceding the Arsacid era. For example, WIDENGREN considers Syr. **wrd** 'wardā 'rose' (Arm. LW *vard*, Talm. Aram. *wrd*', Md. *wardā*) to be a loanword from Parthian *ward* (while Middle Persian has *gul*), but in fact it is a loanword already attested in Official Aramaic as *wrd*: it is thus most likely that the word was borrowed in the Achaemenid period and from Old Persian **vyda-*⁽³⁶⁾. Therefore, when pre-Sasanian loanwords display non-southwestern linguistic features there is always the possibility that the models of the borrowings are Medisms, that is – conventionally – non-southwestern Iranian words borrowed into Old Persian (as sometimes the collateral traditions of the Achaemenid period allow us to prove)⁽³⁷⁾. Subsequently these words entered Official Aramaic, and from Official Aramaic they were inherited by Middle Aramaic dialects, Syriac included.

In Talmudic Aramaic the more recent loanwords do not stretch beyond the 5th cent. AD, while the Syriac lexicon, in addition to a great majority of loanwords from Middle Persian, also displays many Iranian words borrowed from New Persian, some of which were acquired through Arabic.

In what follows, I would like to utilise these two important parallel traditions as sources of information regarding two questions related to the lenition process undergone by OIr. *-k-, namely: a) the dating of the voicing

⁽³⁵⁾ TELEGDİ (1935: 231 ff. and 218).

⁽³⁶⁾ WIDENGREN (1960: 103); cf. TELEGDİ (1935: 241, 63); HINZ (1975: 270).

⁽³⁷⁾ On Medisms see SCHMITT (1989: 87 ff.) and SCHMITT (2003).

of OIr. **-k-*; b) the possible stages of the lenition (consisting in fricativization and/or voicing) of OIr. **-k-*.

It should be noted that in Iranian loanwords occurring in Talmudic Aramaic and Syriac MP *k-* in initial position is represented by ⟨k⟩ and ⟨q⟩, though ⟨q⟩ is very rare, as we shall see below. See the following examples:

Syr. LW ⟨khrby⟩ and ⟨qhrby⟩ for MP *kab-rubāy* ‘amber’;

Talm. Aram. LW ⟨qpyz’⟩, Syr. LW ⟨qpyz’⟩ for Mlr. **kapīč*, MP *kabīz* ‘a grain measure’⁽³⁸⁾.

This situation, at first glance, may seem similar to the free alternation observed in Manichaean script between ⟨k⟩ and ⟨q⟩, ⟨ṭ⟩ and ⟨ṭ̣⟩, which are to be considered as purely graphic variants for /k/ and /t/ in initial position. But, in reality, the distribution of the graphemes indicating plain voiceless and emphatic ones is in Talmudic Aramaic and Syriac loanwords very different from Middle Iranian varieties.

First, in these loanwords there is no free alternation between ⟨ṭ⟩ and ⟨ṭ̣⟩ for initial /t/. Regarding the rendering of the voiceless dental stop in Iranian loanwords in Syriac, we note that in initial position Ir. *t-* is almost always rendered with ⟨ṭ̣⟩, whereas ⟨ṭ⟩ only appears in a small group of loanwords borrowed from Middle Persian, and in one case from Parthian⁽³⁹⁾. In Talmudic Aramaic, as far as I can see, Ir. initial *t-* is also rendered with ⟨ṭ̣⟩, with the exception of a few cases, like one loanword from Manichaean Parthian (*t’g’*, Syr. *tḡ’* ← Mlr. **tāy*, MP *tāg* ‘crown’) and another possibly borrowed from NP (*tgr’*, *tyngyr’*, Syr. *ṭngyr’*, cf. NP *tangīra* ‘a brazen kettle, cauldron’)⁽⁴⁰⁾. I am not sure about the reasons for this fluctuation, but I believe that it may be related to the fact that, in Middle Persian, at least after the 5th cent. AD, the initial voiceless stops have an aspirated allophonic realization, as is also proven by the late Middle Persian loanwords in Armenian, e.g. Arm. *t’akoyk* [t^hakojk] ‘pitcher’ ← MP *takōk* ‘drinking vessel’.

Second, in these loanwords the grapheme ⟨q⟩ in internal and final post-vocalic position does not freely alternate with ⟨g⟩ and there is no evidence that it may represent the Iranian voiced velar stop, opposed to what happens in the Manichaean writing system.

⁽³⁸⁾ CIANCAGLINI (2008: 71; 250).

⁽³⁹⁾ Cf. CIANCAGLINI (2008: 70).

⁽⁴⁰⁾ Cf. CIANCAGLINI (2008: 266; 185).

As a matter of fact, we may observe that in final position, both in Talmudic Aramaic and in Syriac the older loanwords have <k> in correspondence to Ir. *-k-, while the more recent ones have <g>: these latter forms testify to the accomplishment of the voicing process. However, in these Middle Aramaic languages the Iranian loanwords in which MP suffixal -g (written <k> in Pahlavi script) is written <g> are limited in number. In Talmudic Aramaic, in particular, these cases are so few that TELEGDİ (1935: 192) holds that they are only occasional quotations of foreign words, rather than real loanwords, especially because they would all be *hapax legomena* without morphological adaptation since, at the graphic level, they do not show the *aleph* of the emphatic state. Both Syriac and Talmudic Aramaic have three states: emphatic, construct, and absolute. The emphatic state is the most frequent; the construct state is the form of a noun immediately before a modifier, while a noun that has neither of these states is in the absolute state⁽⁴¹⁾. See the following examples:

Talm. Aram. *šustg* ‘piece, cloth of a dress’ ← MP **šustag*; Talm. Aram. *pursyšnmg* ‘record of questioning, or investigation’ ← MP *pursišn nāmag*; Talm. Aram. *prhgbn* ‘tax collector’ ← Mlr. **pāhrag-bān*; Talm. Aram. *’nbg* ‘neat wine’ ← MP **anābag*; Talm. Aram. *glmwbrg* ‘bullet of sling or arbalest’ ← MP **gilmuhrag*; Talm. Aram. *ṭwzyg* ‘a kind of picnic’ ← MP **tōzīg*; Talm. Aram. *pwṭng* (but also *pwṭnq*) ‘mint’ ← MP **pūtanak*⁽⁴²⁾.

The situation described by TELEGDİ for Iranian loanwords in Talmudic Aramaic matches to some extent that of Middle Persian loanwords in Syriac, which – very generally speaking – are borrowed later than those in Talmudic Aramaic, namely from the 4th to the 7th century AD.

In fact, in many cases in which the MP suffix -ag is rendered with Syr. <-g>, the loanwords do not show the *aleph* of the emphatic state, for example:

Syr. *’mlg* ← MP **āmalag* ‘Emblic myrobalan’; Syr. *’rdlg* ← MP **ārdālag* ‘flour-meal’; Syr. *bwkt nmg* ← MP **buxt-nāmag* ‘deed of acquittal’; Syr. *dwṭšwbg* ← MP **dō-čōbag* ‘two-poled (tent)’; Syr. *dhng* ← MP **dabanag* ‘malachite’; Syr. *drmnng* ← MP *dra-*

⁽⁴¹⁾ Cf. NÖLDEKE (1904: 48 ff.).

⁽⁴²⁾ The examples and the translations are taken from Telegdi; for the word *pwṭng*, see TELEGDİ (1935: 249, 104), who suggests that the model of the borrowing was MP **pūtanak*. I do not agree with the etymon proposed by him: see CIANCAGLINI (2008: 228). The word is also attested in Syriac, in the form *pwṭn*, probably representing MP **pūtinak*, later **pūdinag*. However, ASATRIAN (2011: 325) objects that neither MP **pūtanak* nor MP **pūtinak* ‘mint’ could have existed in Middle Persian, and that NP *pōdēnal pūdīna*, *pūna* ‘mint, spearmint’ (Kurd. *pūng*) may come only from Mlr. **bōdēnak* ‘fragrant, smelling’, despite some difficulties regarding the initial *b- > p.

manag ‘wormwood’; Syr. *dšng* ← MP *dašnag* ‘right hand, dagger’; Syr. *nbštg* ← MP *nibištāg* ‘written (document)’.

The same is valid for other Middle Persian suffixes ending in *-g*.

Nevertheless, the conclusion drawn by TELEGDI is not completely valid for Syriac. First of all, the lack of the morphologization by means of the *aleph* of the emphatic state does not warrant the status of occasional quotation. In fact, most of the words quoted by TELEGDI also appear in Syriac (in particular, Syr. *šwstg*, *pwrššnmg*, *pwṭn*’, and *phrgbn*’), and this is a notable counterargument against their status as casuals. Second, the exceptions, namely loanwords where a Middle Persian suffix ending in *-g* is rendered in Syriac with *ⲅ* followed by the *aleph* of the emphatic state, are quite frequent. See the following examples:

Syr. *’mbg*’ ← MP *ambag* ‘a preserve, conserve’; Syr. *’šbrg*’ ← MP *stabrag* ‘shot silk’; Syr. *zywg*’ ← MP **zīwag* ‘mercury, quicksilver’ (which, interestingly, alternates with Syr. *zywg*, *zywq*, and *zybq*’ in the same text).

It should be noted that the Syriac lexicon has more cases of Middle Persian suffixal *-g* being rendered with *ⲅ* than does Talmudic Aramaic. This is not only due to the fact that the borrowings from Middle Persian in Syriac are often later than those in Talmudic Aramaic, but also that Syr. *ⲅ* is additionally employed to represent *-ğ*, tracing back to Pers. *-g*, in recent loanwords borrowed from Arabic. For instance, Syr. *kuštyg* in Bar Bahlūl’s lexicon (10th cent. AD) may come from Arabized NP *kustij* rather than from MP *kustīg* ‘sacred girdle’⁽⁴³⁾.

In any case, it is noteworthy that the majority of the Iranian loanwords borrowed from Middle Persian, both in Talmudic Aramaic and in Syriac, does not record the voicing of the final velar stop, and this seems to be strong counterevidence against the common opinion that in the 3rd cent. AD the voicing process of the OIr. voiceless plosives was already complete.

In Talmudic Aramaic and Syriac the Middle Persian outcome of OIr. suffixal **-k-* is usually rendered with *ⲙ* or, more rarely, *ⲙ*; see the following examples:

Talm. Aram. *’sprmq*’, Syr. *’sprmk*’, *’sprmq*’ ‘aromatic herbs’ ← MP *sprahmag*, ManMP *’sprhmg*, NP *siparyam*, *siprayam*⁽⁴⁴⁾;

⁽⁴³⁾ On this Syriac loanword and its allotropes, see CIANCAGLINI (2008: 79; 193).

⁽⁴⁴⁾ CIANCAGLINI (2008: 112); TELEGDI (1935: 231, 23).

Talm. Aram. *dnq*’, Syr. *dnq*’ ‘the sixth part of the dirham’ ← MP *dāng*, NP id. ⁽⁴⁵⁾;
 Talm. Aram. *prystq*’, Syr. *prstq*’ ‘messenger, ambassador’ ← MP *frēstag* ‘apostle, angel’, cf. ManMP *frystg*, *prystg*, *prystq*, NP *firista* ⁽⁴⁶⁾;
 Talm. Aram. ‘*spydk*’, Syr. ‘*spydk*’, *spydk*’ white lead, ceruse’ ← MP *spēdag*, NP *sapēda*, *sapēdāj*, *isfēdāj* ⁽⁴⁷⁾;
 Talm. Aram. *kmk*’, Syr. *kmk*’ ‘sauce, dressing’ ← MP *kāmag*, NP *kāma* ⁽⁴⁸⁾;
 Talm. Aram. *prwnq*’, Jewish Babylonian Aramaic *prwnq*’, Mandaic *parwānqā*, Syr. *prwnq*’ ← MP *parwānag*, NP *parvāna* ‘messenger’ and *parvānak* ‘messenger, courier’;
 Talm. Aram. *prwrtq*’, Syr. *prwrtq*’ ← MP *frawardag* ‘letter’;
 Syr. *dwlq*’ ← MP *dōlag* ‘*dwlk*’ ‘little bucket’, NP *dōlča*;
 Syr. *psnyq*’ ← MP *pasānīg* ‘courtier’;
 Syr. *prdq*’ ← MP *pardag* ‘*pltk*’ ‘veil, curtain’, NP *parda*;
 Syr. *rustq*’ ← MP *rōstāg* ‘*dw(t)st’k*’ ‘province, district’.

The first thing to observe is that in the Iranian loanwords occurring in Talmudic Aramaic and Syriac, both ⟨q⟩ and ⟨k⟩ represent the phoneme going back to an Iranian voiceless velar stop, given that both scripts have a sign for ⟨g⟩, which is in fact used to represent MP final *-g* in late loanwords. This is a strong confirmation, in my opinion, of the delay of the voicing of the outcome of OIr. intervocalic **-k-* in Middle Persian.

It should also be observed, however, that the presence of a final ⟨q⟩ does not necessarily prove the antiquity of the borrowing, but could also reflect the dialectal variability which begins to appear in the late period of Middle Persian, and which is also responsible, in my opinion, for some of the cases in which Arabic borrowings from Middle Persian show a voiceless final stop.

As emphasized by SHAKED, we must exercise caution in using only the form assumed by the suffixes in *-ag* to corroborate the chronological gradation of an Iranian loanword in Middle Aramaic. On this matter, SHAKED notes: “The maintenance of the letter *qōf* in the morpheme *-ak(a-)*, *-akān(a)*, for example, cannot be considered an archaism, since in early Arabic borrowings (probably made toward the end of the Sasanian period) the Arabic letter *qāf* is consistently used for the same function” ⁽⁴⁹⁾.

⁽⁴⁵⁾ CIANCAGLINI (2008: 152); TELEGGI (1935: 239, 51).

⁽⁴⁶⁾ CIANCAGLINI (2008: 240); TELEGGI (1935: 252, 114).

⁽⁴⁷⁾ CIANCAGLINI (2008: 111); TELEGGI (1935: 230, 21).

⁽⁴⁸⁾ CIANCAGLINI (2008: 196), where MP *kāmag* is incorrectly asterisked: I am indebted to ASATRIAN (2011: 324) for having signalled my mistake; TELEGGI (1935: 245, 86).

⁽⁴⁹⁾ SHAKED (1987: 259). See also below, regarding the representation in Arabic script of MP and Early NP *-k* and *-g*.

Consequently, when we find a final <k> or <q> in a Syriac loanword, it is often difficult to decide whether the Syriac voiceless stop reflects a Middle Persian early stage preceding the sonorisation, or a dialectal feature coming from a dialect not touched by the sonorisation.

It is known that Proto-Semitic *g became the Arabic voiced affricate -ğ, and that Arabic does not possess a sign for <g> (nor the correspondent phoneme). However, VERSTEEGH (2014: 24) claims that “the phoneme corresponding in Classical Arabic to Proto-Semitic *k was probably a non-emphatic voiced counterpart of /k/, i.e. /g/; this is the phoneme that is nowadays realised in Standard Arabic as a voiceless /q/, but that in earlier stages of Classical Arabic was probably a voiced /g/, as in the modern Bedouin dialects [...]. At any rate, /q/ was not emphatic in Classical Arabic, since it did not lead to assimilation of adjacent consonants (compare *iṣṭabara* < **iṣṭabara* ‘to be patient’, where the infix -t- is assimilated to ṣ, with *iqṭabara* ‘to raise a loan’ without assimilation of the t)”.

Nevertheless, as far as the Iranian loanwords in Talmudic Aramaic and Syriac are concerned, they were mostly borrowed much earlier than the oldest loanwords from Arabic. Therefore, I do not believe that the grapheme <q> represents a voiced stop, or that its use may be modelled on the Arabic borrowings, which are later.

As regards the possibility that the alternation <q> ~ <k> in Middle Iranian loanwords in Talmudic Aramaic and Syriac may be governed by some distributional criterion, we have to engage in some preliminary considerations.

The first is that <q> occurs more frequently than <k> in the loanwords borrowed from Middle Persian.

The second is that Talmudic Aramaic and Syriac <k>, in loanwords borrowed after the 2nd cent. AD, is also used to represent the Middle Persian voiceless velar fricative /x/ (before the 2nd cent. AD Ir. *x* is rendered with <ḫ>) ⁽⁵⁰⁾: this fact may partly explain the limited use of Talmudic Aramaic and Syriac <k> for (Early) MP -*k*. Incidentally, it should be noted that this is a further difference in comparison with the Manichaean writing system, where Ir. *x* is regularly represented by the letter <k> with a dot above it (DURKIN-MEISTERERNST 2014: 46).

The third is that we can rule out that the loanwords from Middle Persian in Talmudic Aramaic and Syriac have been borrowed from the written tradition: if they had been, we would have suspected that <k> might reflect the final <k'> of the archaizing Pahlavi script, despite its phonetic realization

⁽⁵⁰⁾ See TELEGDİ (1935: 197 ff.); CIANCAGLINI (2008: 80 f.).

as -g. But this possibility can be excluded both on account of the high degree of bilingualism, which was widespread especially among Syriac authors, and because it is impossible that the Pahlavi script influenced only the rendering of one final phoneme and not of all the others (e.g. in these forms a written Pahlavi 𐭌 representing Ir. *r* is always rendered with Syr. ܪ, etc.). It is more plausible, in my opinion, that these loanwords in which MP -g is rendered with Talmudic Aramaic and Syriac ܩ (or ܕ) are borrowed from an early stage of Middle Persian, preceding the voicing of final postvocalic -k.

The possibility of a dialectal variant is to be considered for some of the examples listed above, where final MP -g, represented in Syriac loanwords by ܩ, corresponds to NP -k, as in Syr. *prwnq* (cf. NP *parvānak* 'messenger, courier' and NP *parvāna* 'messenger') or again in those cases where also the Syriac loanword shows a final ܩ vs. NP -k, for example:

Syr. *gzmzg* 'the fruit of the tamarisk tree', cf. NP *gazmāzak* (and the Arabized NP *kizmāzaj*); Syr. *drwnq* 'leopard's bane' ← MP **drōnag*, NP *darūnak*; Syr. *zrwg* 'leech' ← MP *zalūg* ܩܠܘܟ', NP *zurūk* (and *zarū*, *zalū*).

The dialectal origin of the forms -ak, -ūk seems confirmed for allotropes like NP *parvāna* and *parvānak*, *zurūk* and *zarū*, even if we cannot exclude the possibility that the suffixes with the velar voiceless plosive are extended secondarily to words that have undergone the normal phonological evolution of voicing and dropping of the final velar stop.

Only a few doublets of Iranian loanwords in Talmudic Aramaic and Syriac display an alternation of voiced and voiceless final stop that is not easily explainable, even if we suppose different times for the borrowing or different dialectal sources. See, for instance, Talm. Aram. *pwtng* and *pwtng* 'mint', or the Syriac doublets occurring in late authors and sometimes in the very same text, like Syr. *qnrq* and *qnrq*, from MP *kanārang*; Syr. *kwstyg*, *kwštyg*, *qwtstyg*, from MP *kustīg* 'sacred girdle', NP *kustī*, NP, Arab. *kustij*; Syr. *zywg*, *zywg*, *zywq*, *zybq*, from MP **zīwag* 'mercury, quicksilver', NP *žīva*, Arab. *zībaq* ⁽⁵¹⁾.

Even considering that in some of these loanwords final ܩ may represent Arabized NP -j, and not MP -g, we may observe that in these doublets the alternation mostly involves ܩ and ܩ, though there are sporadic occurrences of alternation between ܩ and ܕ, for instance Syr. 'sprmk', 'sprmq', Talm. Aram. 'sprmq' 'aromatic herbs' ← MP *sprahmag*. Nevertheless, I be-

⁽⁵¹⁾ For details, see CIANCAGLINI (2008: 76).

lieve that in these cases ⟨q⟩ and ⟨k⟩ always represent a voiceless stop, perhaps with two different manners of articulation, but never a voiced one, which is always represented by ⟨g⟩.

I believe that the following explanation may account for these data. At the older stage, when the lenition process of the Old Iranian voiceless plosive has not yet begun, the Syriac rendering of Ir. */k/ is consistently ⟨k⟩. Regarding the later fluctuation between ⟨k⟩ and ⟨q⟩, I suggest the hypothesis that it not only testifies to the delay of the voicing of the Iranian internal and final *k*, but also that in Middle Persian or in other south-western Middle Iranian dialects, from which most of the Iranian loanwords in Syriac are borrowed, the process of lenition of the Old Iranian voiceless stops in internal and final postvocalic position undergoes some kind of weakening before the sonorisation, that is to say that MP *k* in those phonetic contexts is no longer realized as a voiceless plosive. We may hypothesise that it is fricativized and that this fricativization, or aspiration, is a subphonemic feature in those Middle Persian varieties but clearly perceptible to bilingual speakers of Syriac, as often happens in phonetic interference in conditions of linguistic contact⁽⁵²⁾.

In a few cases this fluctuation may represent dialectal variability, i.e. ⟨q⟩ may represent a final voiceless fricative subphonemic realization in Middle Persian dialects different from that of the Middle Persian of the Pahlavi Books, where the lenition process has already reached the stage of sonorisation.

In any case, the sound represented by ⟨q⟩ must have had a phonetic realization different from *x*, which is an autonomous phoneme in Middle Iranian, and whose representation is never ⟨q⟩ in Syriac or Talmudic Aramaic.

In favour of my hypothesis is also the fact that the fluctuation between ⟨q⟩ and ⟨k⟩ in the Iranian loanwords in Talmudic Aramaic and Syriac (as well as between ⟨ṭ⟩ and ⟨ṭ⟩) mostly appears in internal and final position and in voiced phonetic contexts.

Nevertheless, a strong counterargument seems to be that, according to the common opinion, this fluctuation also occurs in initial position, where the Old Iranian voiceless stops do not undergo any voicing: see, for instance, Syr. *k'pwr*, *q'pwr* ← MP *kāpūr* 'camphor', or Syr. *kwst*, *qbst* ← MP *kabast* 'colocynth'⁽⁵³⁾.

If this were true, it would be a feature shared with the Manichaean writing system, in which the graphemes ⟨q⟩ and ⟨k⟩ are used as graphic alterna-

⁽⁵²⁾ See especially the pioneering considerations offered by WEINREICH (1957).

⁽⁵³⁾ See CIANCAGLINI (2008: 189; 193).

tive forms in any position, the initial one included, to represent the Iranian voiceless velar stops.

However, the results of a more careful analysis of the alternation ⟨q-⟩ ~ ⟨k-⟩ in initial position do not disprove my hypothesis: in fact, as far as Syriac is concerned, the doublets displaying this oscillation comprise only three lexemes, and in two of these it is possible to claim that the allotrope beginning with ⟨k-⟩ is older than the one having initial ⟨q-⟩. As for Talmudic Aramaic, the corpus provided by TELEGDI (1935) does not include any doublet of this kind, and Ir. initial *-k- is regularly rendered only with ⟨k-⟩ or ⟨q-⟩, presumably according to the antiquity of the borrowing, as happens in Syriac, with the only difference being that in Syriac, whose Middle Iranian borrowings are generally later than those of Talmudic Aramaic, the rendering with ⟨q-⟩ occurs more frequently. In any case, in Syriac the rendering of Ir. initial *-k- with ⟨k-⟩ is also prevalent⁽⁵⁴⁾.

To conclude, I would like to underline that the Talmudic Aramaic and Syriac loanwords from Middle Persian and Parthian represent strong evidence for the delay of the voicing of OIr. *-k- in internal and postvocalic position.

In my opinion, the oscillation between ⟨k⟩ and ⟨q⟩ in the Iranian loanwords in Talmudic Aramaic and Syriac does not represent a free alternation, but a stage of the lenition of Ir. *-k- preceding (or contemporary to) its voicing. This still needs to be explained in diachronic or diatopic terms. That is, we may assume that this lenition stage (spirantization or something else) is followed by voicing within the Middle Persian diachronic development, or that it is widespread in other dialectal varieties. Again, these two possibilities are not mutually exclusive, because a diatopic variant may preserve one of the diachronic phases of a diachronic change.

3.5. *Some provisional inference about the lenition of OIr. *-k-*

The data considered above may be summarised as follows: the Greek and Parthian versions of the Sasanian inscriptions attest that, in the 3rd cent. AD, the voicing of Western Middle Iranian final and postvocalic -k arisen

⁽⁵⁴⁾ As we have already said above in this section, in Talmudic Aramaic and Syriac loanwords from Middle Persian with the fluctuation between ⟨ϑ⟩ and ⟨ϕ⟩ do not occur: the rendering ⟨ϑ⟩ for Ir. initial *t-* appears only in a few loanwords from New Persian and in two cases from Parthian.

from OIr. intervocalic **-k-* was not yet accomplished, as the voicing of OIr. **-k-* in the cluster **-rk-* also was not. On the other hand, OIr. **-k-* in the cluster **-nk-* was voiced already in Late Old Persian.

Nevertheless, the change had begun and, consequently, the Manichaean texts and the parallel traditions (Armenian, Talmudic Aramaic, Syriac and Arabic) reflect to different degrees a great deal of fluctuation between the voiced and the voiceless outcome of the Old Iranian velar stop.

The rendering of MP *-g* with ⟨g⟩ is relatively rare in the Iranian loanwords in Armenian and Talmudic Aramaic, but more frequent in Syriac and Arabic (where ⟨ġ⟩ reflects MP or Early NP *-g*). This clearly points to a delay in the voicing process of OIr. **-k-* in Middle Persian. The exact date when the lenition process begins and when it is complete is unknown, but the data at our disposal allow us to assume that the voicing of the velar stop takes place at least one or two centuries after the voicing of OIr. **-p-* and **-t-*.

To complete this picture, however, it is necessary to take into account also the different outcomes of OIr. **-k-* in New Persian; the incoherencies emerging from the comparison between corresponding formations in Middle Persian, Manichaean Middle Persian and in parallel traditions; and also some cases of fluctuation attested in the Pahlavi script (e.g. MP *sūrāg* ~ *sūrāx* 'hole, burrow') or the fluctuations of the parallel traditions in face of Middle Persian (e.g. Talm. Aram. and Syr. *brh'* ← MP *warrag*, NP *barra* 'lamb, ram'). These latter seem to point to dialectal variability, which occurs already in Middle Persian.

As we have already said, diachronic change and diatopic variation are not two mutually exclusive explanations of these data: linguistic change has three dimensions, namely time, space, and social strata, and any change is in fact a substitution of variants that have coexisted for a certain span of time, until one of these variants reaches the status of standard or more accepted form⁽⁵⁵⁾. Consequently, a dialectal or sociolinguistic variant coexisting synchronically with the standard form may become, in the course of time, the only one admitted, or at least the commonest one, while the previous standard form and the other variants disappear or are reduced to minority usage. That is to say that dialectal variability may be the first step of a diachronic change, and it is not, at least not in theory, an explanation irreconcilable with the diachronic change.

In our specific case, however, Pisowicz does not believe that Middle Persian is touched by any early dialectal variability, at least not as early

⁽⁵⁵⁾ On this topic, see LAZZERONI (1987: 32 ff.; 1997; 2007).

as the 3rd cent. AD, whereas MacKenzie indirectly seems to accept this very idea. In fact, MacKenzie, on the basis of the different New Persian continuants and of the Manichaean script, seems to hold, for example, that in Middle Persian, as early as the 3rd century, there are two different, identically spelled suffixes: *-ag* ⟨-k'⟩, forming adjectives from nouns and verbal stems and nouns from adjectives and present stems (MACKENZIE 1971: 5), and *-ak* ⟨-k'⟩, forming diminutives (MACKENZIE 1971: 7). In the same way, even in absence of the Manichaean correspondent, MACKENZIE (1971: 98) records as *zardak* 'safflower' and *zardag* 'yolk' the previously mentioned minimal pair of Middle Persian words, which are written in the same way, viz. ⟨zltk'⟩.

According to PISOWICZ, the solution adopted by MacKenzie, who transcribes these two words as *zardag* and *zardak*, respectively, on the basis of the New Persian doublet, is little justified: "Doublets like cl. NP *zarda* – *zardak* probably stem from different dialects (the latter from a conservative dialect, retaining OP *-k*)" (56). These interdialectal borrowings, however, are difficult to ascribe to the 3rd century AD (as MacKenzie seems to do), since in this period the voicing of *-k* > *-g* is, in certain areas, an absolutely new rather than a fully established fact.

In addition, PISOWICZ emphasizes that "there must have existed in the MP period such MP dialects in which the final, and probably also intervocalic OP *-k*-, did not undergo any voicing", and he cites *takōk* 'drinking vessel' as an example in addition to *zardak* (57). Concerning the MP suffix *-ag*, PISOWICZ holds that at an early Middle Persian stage this suffix ends in a voiceless plosive, namely *-ak*, as is witnessed not only by the Armenian loanwords clearly borrowed from Middle Persian (and not from Parthian), like Arm. LW *dastak* 'wrist' ← MP *dastag* 'bunch, bundle, group' (58), but also by the Greek transcription with ⟨-ακ⟩. Furthermore, the voiceless realization in the early Middle Persian stage of the final *-k* of the Middle Persian suffix coming from OP *-a-ka-* could be confirmed — according to PISOWICZ (1985: 141) — by such Arabic borrowings as *nayzak*, *nīzak* 'spear', from Early MP *nēzak*, later *nēzag* (but in my opinion, this word could have been borrowed through Syriac, where *nyzk'*, together with Old Aram. *nzk* and Arm. LW *nizak*, probably comes from OP **naizaka-*).

(56) PISOWICZ (1985: 141).

(57) PISOWICZ (1985: 140).

(58) HÜBSCHMANN (1897: 135). Arm. *dastak* is a loan translation of Gk. καρπός; cf. BOLOGNESI (1960: 8). Cf. also NP *dasta* 'a handle, helve, haft' (STEINGASS 1892: 525).

I believe that Pisowicz is substantially right: in the early phases of Middle Persian, final *-k* (< OP *-k-*) is still voiceless. But somewhat later in Middle Persian, but still quite far removed from New Persian, the dialectal variability is surely attested, as is revealed, in my opinion, by loanwords like Talm. Aram. and Syr. *brh* ' ← MP *warrag* 'lamb, ram' (< OIr. **warn-aka-*, cf. MAYRHOFER 1992-2001, 1: 225), which is an old loanword, being also attested in Talmudic Aramaic and surely borrowed from Middle Persian⁽⁵⁹⁾. The same conclusion seems inferable to me from such allotropies as MP *sūrāg* ~ *sūrāx* 'hole, burrow'.

Finally, I suggest — only as a hypothesis to be verified through a systematic analysis of the data — that the renderings of MP *g* with <q> instead of <k>, attested in Talmudic Aramaic and Syriac, are not the result of a free alternation between the two graphemes, but could perhaps be interpreted as the cue for a different phase in the lenition process: the use of <q> may reflect a kind of weakening of the closure of the velar stop, resulting in a change in manner of articulation. This lenition may precede the voicing phase, or may be contemporary to it in some other Western Middle Iranian variety that is not perfectly identical with Middle Persian.

4. CONCLUSIONS

In brief, we may conclude as follows:

- a) the Greek versions of the multilingual Sasanian inscriptions, the loanwords from Middle Persian in Armenian, Talmudic Aramaic, and Syriac, as well as the great number of different outcomes in New Persian, testify that the voicing of the Old Iranian voiceless velar plosive **-k-*, in internal and postvocalic position, took place long after that of the other voiceless stops, and was not yet complete in the early stages of Middle Persian;
- b) traces of different outcomes of OIr. **-k-* in Middle Persian and in the parallel traditions seem to presuppose an early dialectal variability;
- c) the alternation between <k> and <q> in loanwords from Middle Persian attested in Talmudic Aramaic and Syriac does not represent a free var-

⁽⁵⁹⁾ On the other hand, the final **h** (followed by the *aleph* of the emphatic state) is considered inexplicable by TELEGDİ (1935: 235) and exceptional by SHAKED (1987: 206); cf. CIANCAGLINI (2008: 132).

iation, but is regulated by distributional criteria, whether these are diachronic (⟨k⟩ in the oldest loanwords, ⟨q⟩ in more recent ones, when in these loanwords from Middle Persian the grapheme ⟨k⟩ begins to represent the voiceless velar fricative *x*), or perhaps also diatopic criteria.

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