

E-7 From perfect to modal past: distinguishing between two usages of the Old Japanese suffix *-kyer-*¹

ARTEMII KUZNETSOV^{a, b}

^a Institute for Linguistic Studies, Russian Academy of Sciences

^b National Institute for Japanese Language and Linguistics

Abstract: It has been repeatedly pointed out in the literature that the Old Japanese suffix *-kyer-* appears to be used both as a perfect and modal (past) marker in the *Man'yōshū* (Frellesvig 2010: 75-76; Vovin 2020: 879). Assuming that these usages represent different stages of the same grammaticalization path, I suggest several diagnostic environments which allow to distinguish between the two. Thus, I demonstrate that *-kyer-* preceded by perfective or stative markers as well as verbs of translocative motion can only be interpreted as a modal (past) marker. I also demonstrate that the less grammaticalized perfect *-k-yer-* tends to be spelled logographically, whereas for the more grammaticalized modal (past) *-kyer-* phonographic spelling is dominant.

Keywords: *Old Japanese, diachronic linguistics, grammaticalization theory, motion verbs, Man'yōshū, TAM markers, man'yōgana*

1. Introduction

The origin and semantics of the Old Japanese marker (OJ henceforth) *-kyer-* have been points of debate in Japanese historical linguistics for a long time, with the earliest observations dating back to Fujitani Nariakira (1778: 307) and Motoori Norinaga (1785: 224)². Since these pioneering studies, *-kyer-* has been traditionally viewed in opposition to the suffix *-ki*. While most scholars agree that both markers belong to the past tense domain, there is still little consensus with respect to the functional difference between the two. Putting the past tense meaning aside, there are three major claims about the semantics of *-kyer-*. According to one of them, it had an evidential meaning which is usually described as “recollection of hearsay” (*dembun kaisō*) whereas *-ki* was used for describing past events personally experienced by the speaker. The authorship of this hypothesis apparently belongs to Hosoe (1932: 136-137) who claimed that in this respect OJ resembles Old English, Modern German and Turkish. Another claim is that *-kyer-* is a “mirative” marker (*eitan*), which indicates that the speaker has just realized a past event or current state of affairs. Among the early proponents of this view are Kusano (1901) and Matsuo (1936). Finally, it has been said that *-kyer-* expresses some sort of “subjective attitude” to a past event, whereas *-ki* expresses an objective attitude. Among others, this view was supported by Hashimoto (1969: 386-387), who also suggested that the two markers differ in their aspectual meanings: in particular, he compared the usage of *-ki* and *-kyer-* to that of Aorist and Imperfect in Greek, respectively. This hypothesis was later developed by Suzuki (1984). The mirative and subjective attitude usages of *-kyer-* have been rather convincingly subsumed under the notion of “speaker commitment” by Frellesvig (2010: 76-78).

With respect to the etymology of *-kyer-*, there are two major hypotheses. According to the older one, *-kyer-* has developed from the combination of the past simple marker *-ki* and the stative marker *-yer-*: *-ki-yer-* > *-kyer-* (Yamada 1908, 1936). However, as pointed out by many researchers, this etymology appears very unlikely for several reasons. Firstly, “[the past simple marker] *-ki* attests no conjunctive form, the form that would be expected to precede an auxiliary such as *-yer-*” (Watanabe 2008: 125). Secondly, the morpheme order in which a tense marker appears before an aspect marker is not attested across languages³ (*ibid.*). Thirdly, *-kyer-* “has no necessary connection to the past” (Vovin 2020: 880). Another hypothesis, adopted by the majority of scholars today, derives *-kyer-* from the combination of the auxiliary verb *-ko-* ‘come’ and the stative marker *-yer-*. This etymology was first proposed by Shinmura (1927: 251) and later developed by Kasuga (1942: 244-250), who studied kunten materials from the 8th century. According to him, *-kyer-* in these texts indicates that some state or action began in the past and has been continuing up to the moment of speaking. Over time *-kyer-* developed a resultative/perfect meaning, which eventually, just as the other resultative/perfect marker *-tar-*, became a past tense marker (*ibid.*).

¹ I would like to express my deep gratitude to Professor Bjarke Frellesvig, Professor Yo Matsumoto and Valeria Modina for their useful critiques and helpful suggestions. For any inquiries, please contact me via e-mail: artemiyk83@gmail.com.

² For brevity, in this overview most studies on *-ki* and *-kyer-* are cited via Kato (1998: 83-105).

³ The counterexamples from Paraguayan Guaraní, in which past and future tense markers allegedly precede aspectual ones (Watanabe 2008: 125), have been recently reconsidered as either marginal or not including tense markers at all (e.g., *-ta* appears to be a prospective rather than a future tense marker) (Dmitry Gerasimov: p.c.).

Following Kasuga (1942), in this study I propose the following hypothesis for the diachronic development of *-kyer-*. In pre-Man'yōshū Old Japanese *-ko-* was used as a telic modifier⁴, which converted activities and states into accomplishments. The combination of *-ko-* with the stative marker *-yer-* resulted in a contracted resultative marker *-kyer-*, whose distribution was extended to verbs of all actionality classes. Already by the time the Man'yōshū was compiled (759 AD) *-kyer-* had acquired a perfect function and started to develop into a modal past tense (MP henceforth) marker. Meanwhile, it was continued to be used as a perfect marker. As a past tense marker, it was replaced by *-tar-* in Middle Japanese, but survived as a modal marker in the contracted form *-kke* which is still in use nowadays (Martin 1975: 938; Bundschuh 2021). This hypothesis is schematically represented in Figure 1.

Fig. 1. Grammaticalization path of *-kyer-*

pre-MYS OJ: [state/activity V] + telic modifier *-ko-* + resultative *-yer-* >
 OJ: [all V] + resultative/perfect *-kyer-* >
 OJ: [all V] + modal (past) *-kyer-* >
 EMJ: [all V-*tar-i*] + modal *-ker-* >
 LMJ : [all V-*tak*] + modal *-ker-* >
 NJ: [all V-*ta*] + modal *-kke*

The present research focuses on the OJ stage of this grammaticalization path. As has been pointed out by Frellesvig (2010: 75-76) and supported by Vovin (2020: 879), in the Man'yōshū *-kyer-* seems to be used both as a perfect and MP marker. Although Frellesvig takes an agnostic attitude with respect to the origins of MP *-kyer-*, he regards perfect and MP *-kyer-* as “entirely different” albeit “homophonous” formations. Further developing this idea, he argues that the combination of *-kyer-* and either of two perfective auxiliaries *-te-* or *-n-* is an environment in which only the MP interpretation of *-kyer-* is possible, since “stative (-*yer-*) and perfective are paradigmatically opposed and do not combine” (*ibid.*). Even if we adopt the etymology suggested by Kasuga (1942) and assume that perfect and MP markers correspond to different stages of the same grammaticalization path, it is still very plausible that the stative component *-yer-* was more transparent in the semi-analytic perfect rather than the highly grammaticalized MP marker. Thus, the method suggested by Frellesvig (2010) can be applied regardless of what view we adopt with respect to the etymology of *-kyer-*. In Section 2 I propose additional diagnostic environments in which the two usages can be distinguished. In Section 3 these findings are further supported by graphic evidence from the Man'yōshū. Section 4 sums up the results of this research.

2. Diagnostic environments

In this section I will discuss three types of environments in which only either of the two interpretations of *-kyer-* is possible. In Section 2.1 I will show what kind of aspectual markers are incompatible with the stative marker *-yer-*, which, as mentioned above, appears to be more traceable in the perfect usage of *-k-yer-*. In Section 2.2 I will argue that perfect *-kyer-* is incompatible with auxiliary verbs of translocative motion. Finally, I will analyze a frame construction involving *-kuraku* (the nominal form of the auxiliary *-ko-*) and *-kyer-*, also mentioned in Frellesvig (2010).

2.1. Aspectual markers

2.1.1. *-n-* and *-te*

Before introducing other aspectual markers which, in my view, are only compatible with the MP reading of *-kyer-*, let us first have a closer look at the environments proposed by Frellesvig (2010), namely, *-n-i-kyer-* and *-te-kyer-*. Although *-n-* and *-te-* functioned primarily as perfective markers in OJ⁵, the latter is also supposed to have functioned as a gerund marker (Frellesvig 2010: 57) which served to attach some auxiliary verbs, including *-ko-* (Inoue 1962: 34-35). In addition, Kazuha Watanabe argues that in OJ both of “these forms had already lost the function of aspect markers in many contexts, and were often used as connective particles” (Watanabe 2008: 140)⁶. If this is correct, there should be no semantic clash between the perfective markers and stative *-yer-*.

⁴ Among other functions, described in Inoue (1962: 32). This function is reflected in the usages of *-ko-* which Inoue describes as “continuous development of a situation” and “continuation of a resultative state”, see also Kuznetsov (2020: 226).

⁵ Here I do not touch upon the problem of distribution between *-te-* and *-n-*, since it does not seem to be immediately relevant to this study. For a discussion of this problem see Frellesvig (2010: 67-68) and Vovin (2020: 846).

⁶ Watanabe appears to consider the infinitive of the perfective auxiliary (*-n-i-*) as the grammaticalization source for the connective particle *-ni*. Since such etymology seems to be far-fetched, I prefer to treat these forms as homonymous.

(1)	安之	比奇	能	夜都	乎乃	都婆吉	都良 <small>ニ</small> 尔
	<i>asi</i>	<i>piki</i>	<i>n-o</i>	<i>ya-tu</i>	<i>wo-no</i>	<i>tubaki</i>	<i>tura-tura n-i</i>
	foot	low	COP-ADN	eight-CL	hill-GEN	camelia	intent COP-INF
	美	等母	安可米		也	宇惠 <small>ニ</small> 家流	伎美
	<i>mi</i>	<i>tomo</i>	<i>ak-am-e</i>		<i>ya</i>	<i>uwe-te-kyer-u</i>	<i>kimi</i>
	look.FIN	CONN	get.enough-CJR-EXCL	FOC	plant.INF-te-kyer-ADN		lord

‘Even if [I] look intently, could [I] get enough of the camelia from eight hills with low foot, [or my] lord who has planted [them]? [– Certainly, I could not!] (MYS 20.4481) (Vovin 2013, Vol. 20: 266)

(2)	筑波	祢乃	乎 <small>ニ</small>	毛	許能	母爾	毛利敞	須惠
	<i>Tukupa</i>	<i>ne-no</i>	<i>wote</i>	<i>mo</i>	<i>kono</i>	<i>mo-ni</i>	<i>mor-i-bye</i>	<i>suwe</i>
	Tukuba	peak-GEN	that.side	FOC	this	side-LOC	guard-NML-group	
	波播	已毛礼杼母		多麻	曾	阿比爾家留		
	<i>papa</i>	<i>i-mor-e-domo</i>		<i>tama</i>	<i>so</i>	<i>ap-i-ni(-)kyer-u</i>		
	mother	DLF-guard-EXCL-CONC	soul	FOC	meet-INF-ni(-)kyer-ADN			

‘Although [my] mother guards [me] here [as if] placing guards on this side and that side of Tukupa peak, [our] souls have already united.’ (MYS 14.3393) (Vovin 2012, Vol. 14: 82)

Indeed, it seems impossible to say whether *-te* in example (1) is a perfective or gerund marker. It is for this reason that I excluded *-te-kyer-* from my data altogether (see also MYS 12.2855). Furthermore, Watanabe claims that already in the Man'yōshū *-ni* was used as a connective particle with a purposive meaning (Watanabe 2010: 140). This kind of analysis does not seem impossible for the example (2)⁷. In other words, it might be a bi-clausal purposive (*ap-i-ni k-yer-*; *meet-INF-CONN(purposive) come-STAT* ‘have come to meet each other’) rather than a monoclausal (*ap-i-ni-kyer-*; *meet-INF-PERF-INF-MP* ‘have met each other’) construction. This is further supported by the fact that *-k-yer-* is well attested as the lexical verb *ko-* in combination with the stative marker *-yer-* (3) (another example is MYS 17.3943).

(3)	使乃	家礼婆
	<i>tukapi-no</i>	<i>k-yer-e-ba</i>
	messenger-GEN	come-STAT-EXCL-PRV

‘When the messenger has come...’ (MYS 17.3957)

Having taken the above into account, I decided to exclude all ambiguous cases of *-n(-)i(-)kyer-* from my data⁸. The ultimate number of tokens which, according to Frellesvig (2010), should be considered as PERF-INF-MP *-n-i-kyer-* amounts to 214. This constitutes 58% (214/372) of all usages of *-kyer-* in the Man'yōshū.

2.1.2. *-te-ar-, -tar- and -yer-*

Another set of markers which I consider to be incompatible with perfect *-k-yer-* are *-te-ar-*, *-tar-* and *-yer-*. All of them are analyzed as “stative” in Frellesvig (2010: 68-69), with *-yer-* described as morphological and *-te-ar-/tar-* as periphrastic. Watanabe, by contrast, claims that in the Man'yōshū *-tar-* was a “resultative/perfect marker”, while *-yer-* and *-kyer-* were “imperfective” and “past imperfective” markers, respectively (Watanabe 2008: 123). However, there are certain contexts which pose a serious problem to this analysis.

(4)	須美禮	採爾等		来師		吾	曾
	<i>sumire</i>	<i>tum-i-ni-to</i>		<i>ko-si</i>		<i>ware</i>	<i>so</i>
	violet	pick-INF-CONN-COMP		come-PST.ADN	I	FOC	
	野乎	奈都可之美	一夜		宿二来		
	<i>nwo-wo</i>	<i>natukasi-mi</i>	<i>pito-ywo</i>		<i>ne-n-i-kyer-u</i>		
	field-ACC	be.nostalgic-ACOP.INF	one-night		sleep-PERF-INF-kyer-ADN		

‘I come to pick violets, (but) feeling nostalgic for the fields, I sleep there one night.’ (MYS 8.1424) (Watanabe 2008: 105)

The problem lies in the fact that *-kyer-* is quite often combined with *-n-*, which Watanabe herself, just as many other scholars, defines as a “perfective marker”. Such combination of morphemes expressing opposite grammatical meanings

⁷ Another candidate for this interpretation of *-ni kyer-* is MYS 17.3892.

⁸ These are songs MYS 3.267 and MYS 14.3393.

appears to be controversial. Since *-n-* is commonly accepted to be a perfective marker, *-kyer-* cannot have an imperfective meaning.

Whether we adopt Frellesvig's (2010) or Watanabe's (2008) analysis of *-te-ar-*, *-tar-* and *-yer-*, the combination of these markers with perfect *-k-yer-* is redundant, because in this case stative *-yer-*, already contained in *-k-yer-* would be unnecessarily duplicated. However, one might argue that *-ar-* (which is the etymological source of *-yer-*) was no longer traceable in *-tar-*. Indeed, this is the view which Watanabe (2008: 159) appears to support, but even if we adopt her classification, we end up with a rather cumbersome and semantically redundant chain of morphemes (5).

- (5) *-tar-i-k-yer-*
 -resultative/perfect-INF-COME(perfect)-imperfective

Such a chain of morphemes would only be possible if we interpreted *-kyer-* as an MP marker rather than a perfect one. The token frequencies of these morpheme chains in the Man'yōshū are shown in Table 1.

Table 1. Token frequencies of stative markers followed by MP *-kyer-*

	<i>-kyer-</i>	MYS#
<i>-tar-</i>	5	3.470, 11.2766, 18.4073, 19.4268, 20.4302
<i>-te-ar-</i>	3	6.987, 9.1738, 10.2211
<i>-yer-</i>	4	2.206, 12.2964, 17.3804, 19.4231

(6a) illustrates the combination of stative *-tar-* with MP *-kyer-*.

- (6a) 都奇 見礼婆 於奈自 久尔 奈里 夜麻 許曾婆
 tukwi mi-reba onazi kuni nar-i yama koso-ba
 moon see-PRV be.same province COP-FIN mountain FOC-TOP
 伎美我 安多里乎 敞太彌多里家礼
 kimi-ga atari-wo pyedate-tar-i-kyer-e
 lord-GEN vicinity-ACC separate.INF-STAT-INF-MP-EXCL
 'When [I] look at the moon, [it] is the same province. [But] the mountains are separating [you, my] lord, [from me].' (MYS.18.4073) (Vovin 2016: 67)

2.2. Deixis

Another set of markers which, in my view, only allow for the MP interpretation of *-kyer-* are auxiliary verbs of translocative motion such as *-yuk-* 'go' and *-in-* 'leave'. They specify spatial or temporal⁹ deixis of an action expressed by the main verb in such a way that the subject becomes ever more distant from the deictic center in space or time. By contrast, *-ko-* denotes that a subject approaches a deictic center. The reason why *-yuk-* and *-in-* should only allow for the MP interpretation of *-kyer-* is because two auxiliaries with opposing deictic properties cannot be used within the same verb. As far as the Man'yōshū is concerned, in combination with *-kyer-* these verbs are only used in their spatial function.

- (7a) 妹之 去者 血沼 壮士 其 夜 夢 見
 imo-ga in-ure-ba Tinu wotokwo so-no ywo yume-ni mi
 maid-NOM go-EXCL-COND Chinu man this-ADN night dream-DAT see.INF
 取次寸 追去祁礼婆
 toritutuk-i op-i-yuk-i-kyer-e-ba
 follow-INF follow-INF-GO-INF-MP-EXCL-PRV
 'She killed herself in grief. Chinu saw it in his dream that night and followed her in death.' (MYS.9.1809)

This song tells a story of a beautiful maid Unai who was proposed to by two competing men, ready to kill each other. Willing to prevent the bloodshed she herself commits suicide. One of the men called Chinu saw that in his dream and "followed her in death". Thus, the deictic center in (7a) corresponds to "this world" which the young man leaves for his beloved. This indicates that here *-yuk-* is used in its spatial rather than temporal function, while *-kyer-* is used as an MP marker.

⁹ This type of usage has been known by various names including *moving-world metaphor*, *keizoku*, *deictic time relation*, *durative* etc.

(7b)	白玉之 緒 絶者	<i>siratama-no wo daye-pa</i>	信雖 然	<i>makoto sikar-e-domo</i>
	pearl-GEN string be.cut.INF-TOP		truth	be.such-EXCL-CONC
	其 緒 又 貫		人	持去家有
	<i>so-no wo mata nuk-i</i>		<i>pito</i>	<i>mot-i-in¹⁰-i-kyer-i</i>
	this-ADN string again to.thread.INF	man	hold-INF-GO-INF-MP-FIN	
	'While it is true that the pearl's string has snapped, [another] man has threaded a new string and taken [the pearl] away.' (MYS.16.3815)			

This song is composed by parents of a remarried woman in response to a letter of proposal which they received from an interested man. Since it is them, who correspond to the deictic center, *-in-i-kyer-* should be interpreted in the same manner as *-yuk-i-kyer-* in the previous example. Interestingly, the usage of characters 家有 suggests that the author was aware of the origin of *-kyer-*, but apparently emphasized that it is the MP marker *-kyer-* and not the perfect marker *-k-yer-*, which, as will be shown in the next section, is most often spelled as 来有.

2.3. Framing construction

Another environment which allows to distinguish between the two usages of *-kyer-* has also been proposed by Frellesvig (2010: 75).

(8)	神代 欲理 云伝久良久	<i>kamwiyo ywori ip-i-tute-kuraku</i>	虛見通 倭 国者	<i>sworamitu yamato-no kuni-pa</i>
	god.age ABL say-INF-transmit.INF-COME(PERF).NML		soaring Yamato-GEN land-TOP	
	皇神能 伊都久志吉 国 言靈能 佐吉播布 国 等 加多利繼			
	<i>sumyekamwi-no itukusiki kuni kotodama-no sakipap-u kuni to katar-i-tug-i</i>			
	ruling.deity-GEN august.ADN land word.spirit-GEN bless-ADN land COMP tell-INF-continue-INF			
	伊比都賀比計理			
	<i>ip-i-tugap-i-k-yer-i</i>			
	say-INF-continue-INF-COME(PERF)-STAT-FIN			
	'It has been recounted down through time since the age of the gods: that this land of Yamato is a land of imperial deities' stern majesty, a land blessed by the spirit of words.' (MYS.5.894) (Levy 1981), via Frellesvig (2010: 75)			

(8) is said to contain a framing construction with the nominalized form of the auxiliary verb *-ko-* (*-kuraku*¹¹) on the one side and perfect *-k-yer-* on the other. Frellesvig compares (8) to an analogous framing construction which, being a syntactic loan from Chinese, is well attested already in OJ (Frellesvig 2010: 272).

(9)	<i>ipaku</i> ‘reported speech’ <i>to</i> <i>ip-</i>	<i>say.NML</i>	<i>COMP say</i> (Frellesvig 2010: 75)
-----	---	----------------	---------------------------------------

There is another example of this construction in the Senmyō (SM.17.13). For brevity I will not quote it here, but it is worth mentioning that in this sentence, unlike in (8), both *-kuraku* and *-kyer-u* are spelled logo-phonographically: 来久 and 来流, respectively. Thus, in this case the interpretation of 来久 as *-kuraku* is no more than a philological convention, because, if somewhat counterintuitively, we cannot rule out the possibility that 来久 was pronounced as *-kyeraku*. It is for this reason that I do not count this example in my further analysis.

It would be logical to assume that this framing construction (mutatis mutandis) can also help to separate cases of MP *-kyer-*. Let us consider another song from the Man'yōshū.

(10)	神代欲里 伊比都芸家良久	<i>kamwiyo-wo-ywori ip-i-tug-i-k-yer-aku</i>	父母乎 見波	<i>titipapa-wo mi-re-ba</i>
	god.age-ABL say-INF-report-INF-COME(PERF)-STAT-NML		father.mother-ACC see-EXCL-COND	
	多布刀久 妻子 見波 可奈之久 米具之 宇都世美能			
	<i>taputwo-ku myekwo mi-re-ba kanasiku megusi utusemi-n-o</i>			
	awesome-INF wife.child see-EXCL-PRV be.adorable-INF be.dear-FIN ephemeral.cicada-COMP-ADN			

¹⁰ Note, however, that this seemingly hypermetrical line could in fact be a way of writing *mot-i-n-i-kyer* (hold-INF-PERF-INF-MP), with the kanji 去 being used as a kungana for /ni/ (Bjarke Frellesvig: p.c.).

¹¹ The nominalized form of *-kyer-* would be *-kyeraku* (ibid.).

余乃	許等和利	止	可久	佐末爾	伊比家流
<i>yo-no</i>	<i>kotowari</i>	<i>to</i>	<i>kaku</i>	<i>sama-n-i</i>	<i>ip-i-k-yer-u...</i>
world-GEN	principle	COMP	be.thus	way-COP-INF	say-INF-COME(PERF)-STAT-ADN
'It has been transmitted from the age of deities...[that] when [one] looks at his father and mother, [he] is filled with awe, and when [he] looks at his wife and children, [they] are adorable [to him]...' (MYS.18.4106)					
(Vovin 2016: 112)					

Note that the lexical filling of the framing construction in (8) and (10) is almost identical, including the postpositional phrase *kamwiywo-ywori* ‘from the age of deities’ as well as the synonymous main verbs *ip-i-tute-* and *ip-i-tug-*, both of which mean ‘to pass on by word of mouth’. The only difference is between *-kuraku* and *-kyeraku*. Since none of the functions attributed to MP *-kyer-* in the literature (hearsay, mirative, subjectivity) appears to be appropriate in (10), one should conclude that there is no semantic difference between *-kuraku* and *-kyeraku* in these examples with both markers expressing the perfect meaning. This assumption is corroborated by Vovin (2016: 113): “...*kyer-* [in MYS.18.4106] is not the retrospective¹² form of *-ip* ‘to say’, but progressive form of *ko-* ‘to come’ (Omodaka 1984: 121), (Ito 1992: 175), which, of course, is the source of the retrospective *-kyer-*”. It is also worth noting that there is a chronological gap between (8) (Book 5, 724–733 AD) and (10) (Book 18, 748–750)¹³. All the above taken into account, I argue that both instances of *-kyer-* in (10) have the perfect rather than the MP function.

3. Graphic evidence

There are two modes of writing used in the Man'yōshū: a logographic (semantographic) and a phonographic one. While the former employed the semantic value of Chinese characters, the latter, widely known as man'yōgana, allowed to spell an OJ syllable with a number of characters whose Early Middle Chinese (ongana) or native (kungana) pronunciation was homophonous to the OJ pronunciation of this syllable. Even though the dominant mode may differ from book to book, there seems to be a tendency for content morphemes to be spelled logographically and for function morphemes to be spelled phonographically. This tendency is even more apparent in a closely-related OJ mode of writing known as senmyōgaki (Frellesvig 2010: 16). It is, therefore, logical to assume that the less grammaticalized usages of *-ko-*, which were still associated with their lexical source, tend to be spelled logographically, whereas for the more grammaticalized usages phonographic spelling should be dominant.

In this Section I will investigate the spellings of MP *-kyer-* based on the diagnostic environments discussed above. Note that in some cases there might be no character corresponding to either *-k-* or *-yer-* (or even both of them (10 tokens)). Since these cases are products of philological interpretation, they are not considered in the total calculation, shown in Table 2.

Table 2. Spellings of lexical *ko-* and MP *-kyer-* in diagnostic environments

	Phonographic	Logographic
Lexical verb <i>ko-</i>	210 (28%)	546 (72%)
MP <i>-kyer-</i>	142 (68%)	67 (32%)

Before making any conclusions about the spelling of MP *-kyer-* let us first see how the lexical (i.e. ungrammaticalized) verb *ko-* is written in OJ texts. My data show that almost 3/4 of all tokens of lexical *-ko-* were spelled logographically. Conversely, almost 2/3 of tokens in which *-kyer-* is used as the MP marker are spelled phonographically. The statistical significance of this difference has been proved by a chi-square test, χ^2 (df = 1) = 113.9, $p < .01$. Let us now go into some detail and see how MP *-kyer-* is spelled in each diagnostic environment.

Table 3. Spellings of MP *-kyer-* in different diagnostic environments

	phonographic			logographic			zero		
	PERF	STAT	GO	PERF	STAT	GO	PERF	STAT	GO
<i>-k-</i>	132 (68%)	7 (58%)	3 (100%)	62 (32%)	5 (42%)	—	18	—	—
<i>-yer-</i>	134 (94%)	8 (100%)	2 (66%)	9 (6%)	—	1 (33%)	69	4	—

¹² The terms *retrospective* and *progressive* in Vovin (2020) correspond to *modal past* and *perfect* in Frellesvig (2010), respectively. In this paper the latter terminology is adopted.

¹³ The periodization is from Vovin (2009: 6–10). However, it should be admitted that this variation might be due to the fact that the two books were probably compiled by different authors: Yamanoue-no Okura (Book 5) and Otomo-no Yakamochi (Book 18) (*ibid.*).

Table 3 shows the spellings of MP *-kyer-* preceded by the perfective *-n-*, statives *-tar-*, *-te-ar-* or *-yer-* and auxiliary verbs *-yuk-* and *-in-*. As can be observed, the tendency for the MP *-kyer-* to be spelled phonographically holds for each particular environment. Although the number of tokens of *-k-*, preceded by *-yuk-* and *-n-*, is extremely small (which renders any statistical analysis meaningless), it is revealing that none of them is spelled logographically. As for the spelling of *-kyer-* in the framing construction (see Section 2.3), it should be admitted that examples (8) and (10) contradict my hypothesis, since *-k-yer-* (which I assume to be a perfect marker in both cases) is written phonographically. Although somewhat ad-hoc, these counterexamples should be disregarded as accidental, considering the sparsity of available data.

4. Conclusion

From a typological perspective the diachronic development of *-kyer-* (resultative > perfect > modal past) is anything but rare. Similar grammaticalization paths can be easily found in other languages. The most well-known cases are resultative/perfect constructions developing a past tense function in German and Romance languages. An even more similar case has been attested in Atchin (Austronesian) where the verb ‘come’ developed into a past tense marker via a perfect one (Bybee et al. 1994: 56, 82, 86). The fact that the perfect function of *-k-yer-* continued to coexist along with the newly developed modal one is in full accordance with the layering principle of grammaticalization (Hopper & Traugott 2003: 125). The main objective of this research was to find such diagnostic environments in which the two functions of *-k(-)yer-* can be distinguished. Admittedly, there are almost no cases, except for examples (8) and (10), which we can certainly claim to contain perfect *-k-yer-*. As for the further development of *-kyer-* in Middle and Modern Japanese, it has been well described in the literature, see i.a. Frellesvig (2010: 239; 331) and Bundschuh (2021), and therefore was not considered in the present research.

Abbreviations

ABL — ablative; ACC — accusative; ACOP — adjectival copula; ADN — adnominal; CJR — conjectural; CL — classifier; COME — ventive; COMP — complementizer; CONC — concessive; COND — conditional; CONN — connective; COP — copula; DAT — dative; DLF — directive-locative focus; EMJ — Early Middle Japanese; EXCL — exclamatory; FIN — conclusive; FOC — focus; GEN — genitive; GER — gerund; GO — andative; INF — infinitive; intr. — intransitive; LMJ — Late Middle Japanese; LOC — locative; MP — modal past; MYS — Man'yōshū; NEG — negative; NJ — Modern Japanese; NML — nominalizer; NOM — nominative; OJ — Old Japanese; PERF — perfect; PRV — provisional; PST — past; SM — Senmyō; STAT — stative; TOP — topic; tr. — transitive.

References and sources

- Bundschuh, J. (2021). Please Remind Me: A History of the Japanese Particle of Recollection *kke*. In: *Proceedings of the Linguistic Society of America*. Vol. 6 (1), 421-432. <https://doi.org/10.3765/plsa.v6i1.4978>.
- Bybee, J., Perkins, R., & Pagliuca, W. (1994). *The Evolution of Grammar: Tense, Aspect, and Modality in the Languages of the World*. Chicago: The University of Chicago Press.
- Frellesvig, B. (2010). *A History of the Japanese language*. New York: Cambridge University Press.
- Hopper, P., & Traugott, E. (2003). *Grammaticalization*. Cambridge: Cambridge University Press.
- Inoue, H. (1962). Dōshi-no-setsujika: Manyō-no “yuku”-to “ku” [Yuku and ku as auxiliary verbs in the Man'yōshū]. In: *Manyō*. Vol. 43, 27-37
- Ito, H. (1992). *Man'yōshū zenchū. Kan dai 18*. [The Man'yōshū completely annotated, vol. 18]. Tokyo: Yūhikaku.
- Kasuga, M. (1942). *Saidaiji-bon-konkōmyō-saishō-ōkyō-koten-no kokugogaku-teki-kenkyū*. [A linguistic study of the old glosses of the Saidaiji temple Golden light sutra]. Tokyo: Iwanami Shoin.
- Kato, K. (1998). “Ki/kyeri”-no kenkyū. [A study of suffixes *-ki* and *-kyeri*]. Osaka: Izumi Shoin.
- Kuznetsov, A. (2020). Grammaticalization of motion verbs in Japanese: *iku* and *kuru* revisited. In: *161st LSJ Meeting Handbook*. Tokyo: The Linguistic Society of Japan, 223-229.
- Martin, S.E. (1975). *A reference grammar of Japanese*. New Haven: Yale University Press.
- Omodaka, H. (1984). *Man'yōshū chūshaku* [The annotated Man'yōshū]. Tokyo: Chūōkōronsha.
- Vovin, A. (2009, 2012, 2013, 2016). *Man'yōshū: A New English Translation Containing the Original Text, Kana, Transliteration, Romanization, Glossing and Commentary*. Kent: Global Oriental. Vol. 14, 15, 17, 18, 20.
- Vovin, A. (2020). *A Descriptive and Comparative Grammar of Western Old Japanese*. Leiden; Boston: Brill.
- Watanabe, K. (2008). *Tense and Aspect in Old Japanese: Synchronic, Diachronic and Typological Perspectives*. Doctor Dissertation. Cornell University.
- CHJ — Corpus of Historical Japanese. Available at: <https://chunagon.ninjal.ac.jp/chj/search> (accessed on 12.01.2021).
- ONCOJ — National Institute for Japanese Language and Linguistics (2020) “Oxford-NINJAL Corpus of Old Japanese” (Version 2020.1) <https://oncoj.ninjal.ac.jp/> (accessed on 14.02.2021).