Moraic reversal and realisation: analysis of a Japanese language game

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Supplementary materials

Speaker information

Speaker 1: 70 years old, from Mie.
Originally stated he was unfamiliar with *sakasa kotoba*, but recognised it after beginning elicitation.
Speaker 2: 38 years old, from Aichi.
Learned *sakasa kotoba* at the age of 5.
Speaker 3: 51 years old, from Tokyo.
Learned *sakasa kotoba* in elementary school.
Speaker 4: 49 years old, from Aichi.
Familiar with the name of *sakasa kotoba*.
Speaker 5: 38 years old, from Tokyo/Kozushima.
Learned *sakasa kotoba* as a child.
Speaker 6: 26 years old, from Nagasaki.
Familiar with the name of *sakasa kotoba*.

List of items and game forms for all speakers[1]

	underlying	*surface*	*pattern*	*orthography*	*transcriber 1*		*transcriber 2*	
					phonemic	*phonetic*	*phonemic*	*phonetic*
1	waNhaku 'naughty'	wampaku	CVNTVCV	わんぱく 腕白	kupaNpa	kupampa (S1–2)	kupaNpa	kupampa (S1–2)
					kupaNwa	kupaɴwa (S3, 5)	kupaNwa	kupaɴwa (S3)
					kuwapa	kuwapa (S6; *preceded by* kuwan)	kupaNwa	kupaãwa (S5)
							kuwapaN	kuwapaɴ (S6)
2	bijousi 'hairdresser'	bijooʃi	CVCVRCV	びようし 美容師	sijoRbi	ʃijoobi (S1)	sijoRbi	ʃijoobi (S1)
					siujobi	ʃiujobi (S2, 4–6)	siujobi	ʃiujobi (S3–6)
					sijoubi	ʃijoubi (S3)	siujoRbi	ʃiujoobi (S2)
3	sjuNzjuN 'hesitation'	ʃuɴʤuɴ	CVNDVN	しゅんじゅん 逡巡	zjuNsjuN	ʤunʃuɴ (S1)	zjuNsjuN	ʤuũʃuɴ (S1)
					NzjuNsju	m̩ʤumʃu (S4) n̩ʤuɴʃu (S5) n̩ʤunʃu (S6)	NzjuNsju	n̩ʤuɴʃu (S4–6)
					impossible	*impossible* (S2–3)	*impossible*	*impossible* (S2–3)
4	hoNQto 'very'	hontto	CVNQT	ほんっと	toNho	toɴho (S1, 3–5)	toNho	toõho (S1) toɴho (S3–5)
					toQho	tohho (S2)	toQho	tohho (S2)

[1] The orthography cells contain both kana (hiragana and katakana) and kanji.

	underlying	*surface*	*pattern*	*orthography*	transcriber 1		transcriber 2	
					phonemic	*phonetic*	*phonemic*	*phonetic*
					Notoho	n̩otoho (S6)	Ntoho	n̩toho (S6)
5	kiNsi 'prohibition'	kinʃi	CVNSV	きんし 禁止	siNki	ʃiŋki (S1–6)	siNki	ʃiŋki (S1–6)
6	ai 'love'	ai	VV	あい 愛	ia	ia (S1–3, 5–6)	ia	ia (S1–3, 5–6)
					iha	iha (S4)	iha	iha (S4)
7	mourjou 'spirits, monsters'	moorjoo	CVRCGVR	もうりょう 魍魎	ujoriumo	ujoriumo (S1)	ujodiumo	ujodiumo (S1) (*hard to transcribe*)
					urjoumo	urjoumo (S5–6)	urjoumo	urjoumo (S4–6)
					urjorjou	urjorjou (S4)		
					impossible	*impossible* (S2–3)	*impossible*	*impossible* (S2–3)
8	dosaNko (type of horse)	dosaŋko	CVCVNCV	どさんこ 道産子	koNsado	konsado (S1–5)	koNsado	koõsada (S1, 3) konsado (S5) koɴsado (S2, 4)
					incomplete	*incomplete* (S6)	*incomplete*	*incomplete* (S6)
9	touja 'cultivation'	tooja	CVRGV	とうや 陶冶	jaRto	jaato (S1, 6)	jaRto	jaato (S1, 6)
					jauto	jauto (S2–5)	jauto	jauto (S2–5)
10	batou 'verbal abuse'	batoo	CVCVR	ばとう 罵倒	toRba	tooba (S1, 6)	toRba	tooba (S1)
					utoba	utoba (S2–5)	touba	touba (S6)
							utoba	utoba (S2–5)

	underlying	*surface*	*pattern*	*orthography*	*transcriber 1*		*transcriber 2*	
					phonemic	*phonetic*	*phonemic*	*phonetic*
11	todoroki 'roar'	todoroki	CVCVCVCV	とどろき 轟	kirodoto	kirodoto (S1–6)	kirodoto	kirodoto (S1–6)
12	dokuro 'skull'	dokuro	CVCVCV	どくろ 髑髏	rokudo	rokudo (S1–6)	rokudo	rokudo (S1–6)
13	toR 'ten'	too	CVR	とお 十	Rto	oto (S1, 4)	utoR	utoo (S1)
							Rto	oto (S4)
					uto	uto (S2–3, 5–6)	uto	uto (S2–3, 5–6)
14	kiQte 'stamp'	kitte	CVQCV	きって 切手	teQki	tekki (S1–6)	teQki	tekki (S1–6)
15	suteQpu 'step'	suteppu	CVCVQCV	ステップ n/a (*foreign*)	puQtesu	puttesu (S1–4, 6)	puQtesu	puttesu (S1–4, 6)
					puQsute	pussute (S5)	puQsute	pussute (S5)
16	ei 'ray (fish)'	ei	VV	えい	ie	ie (S1–6)	ie	ie (S1–6)
17	raNti 'lunch'	rantʃi	rVNCV	ランチ n/a (*foreign*)	tiNra	tʃiɴra (S1–5) tʃinra (S6)	tiNra	tʃimra (S2) tʃinra (S1, 3–6)
18	maN 'ten thousand'	maɴ	CVN	まん 万	Nma	ɴma (S1–2, 4) mma (S5–6)	Nma	ɴma (S1) mma (S2, 4–6)
					impossible	*impossible* (S3)	*impossible*	*impossible* (S3)

	underlying	*surface*	*pattern*	*orthography*	*transcriber 1*		*transcriber 2*	
					phonemic	*phonetic*	*phonemic*	*phonetic*
19	juRutu 'depression'	juuutsu	CVRVCV	ゆううつ 憂鬱	tuuRju	tsuuuju (S2–4)	tuuRju	tsuuuju (S2–5)
					tuuju	tsuuju (S1, 5–6)	tuuju	tsuuju (S6)
							tuujuR	tsuujuu (S1)
20	aNki 'memorise'	aŋki	VNCV	あんき 暗記	kiNa	kiɳa (S2–4) kiɲa (S1,6) kiŋŋa (S5)	kiNa	kiĩa (S1, 5–6) kiɳa (S2, 4) kiŋa (S3)
21	kiNhosi 'to be a giant killer'	kimboʃi	CVNCVCV	きんぼし 金星	siboNki	ʃiboɴki (S1–6)	siboNki	ʃiboɴki (S1–2, 4) ʃibomki (S3) ʃiboŋki (S5–6)
22	roRN 'loan'	rooɴ	CVRN	ローン n/a (foreign)	NRro	ɳ̍ɴro (S1–2) ɳ̍ɴro (S4–6)	NRro	ɴɴro (S1–2, 4–6)
					impossible	*impossible* (S3)	*impossible*	*impossible* (S3)
23	siiN 'cause of death'	ʃiiɴ	CVRN	しいん 死因	NRisi	ɴɴiʃi (S1)	Nisi	ɴiʃi (S1–2, 4–5)
					Nisi	niʃi (S6) ɴiʃi (S2, 4–5)	NRisi	nniʃi (S6)
					impossible	*impossible* (S3)	*impossible*	*impossible* (S3)
24	juQke (Korean dish)	jukke	jVQCV	ゆっけ	keQju	kejju (S1, 3) keʔju (S4–6) (S2 *unclear*)	keQju	kejju (S1–6)

	underlying	*surface*	*pattern*	*orthography*	*transcriber 1*		*transcriber 2*	
					phonemic	*phonetic*	*phonemic*	*phonetic*
25	kokiQte 'cheque'	kogitte	CVCVQCV	こぎって 小切手	teQgiko	teggiko (S1–3, 5–6) tekkogi (S4)	teQgiko	teggiko (S1–3, 5–6) tekkogi (S4)
26	zaNge 'repent'	zaŋge	CVNCV	ざんげ 懺悔	geNza	geɴza (S2–6) genza (S1)	geNza	geɴza (S2, 4) genza (S1, 3, 5–6)
27	uNti 'poop'	untʃi	VNCV	うんち	tiNu	tʃiɲu (S2–5) tʃiŋu (S1, 6)	tiNu	tʃiɲu (S2–5) tʃiŋu (S1) tʃiĩu (S6)
28	koukou 'high school'	kookoo	CVRCVR	こうこう 高校	koukou	koukou (S1)	koukou	kookoo (S1)
					RkoRko	ukouko (S2–6)	RkoRko	ukouko (S2–6)
29	kouki 'second half'	kooki	CVRCV	こうき 後期	kiuko	kiuko (S1–6)	kiuko	kiuko (S1–6)
30	nisiN 'herring'	niʃiɴ	CVCVN	にしん・ニシン 鰊	Nsini	ɴʃini (S1–2, 4) (S5–6 *quality of initial nasal unclear*)	Nsini	ɴʃini (S1–2, 4)
					impossible	*impossible* (S3)	*impossible*	*impossible* (S3)
31	utu 'mental depression'	utsu	CVCV	うつ 鬱	tuu	tsuu (S1–6)	tuu	tsuu (S1–6)
32	dotoRru (name)	dotooru	CVCVRCV	ドトール *n/a*	ruRdodu	ruudodu (S1)	ruRdodu	ruutodu (S1)
					ruRtodo	ruutodo (S2–6)	ruRtodo	ruutodo (S2–6)

	underlying	*surface*	*pattern*	*orthography*	transcriber 1		transcriber 2	
					phonemic	*phonetic*	*phonemic*	*phonetic*
33	garibaR 'Gulliver'	garibaa	CVCVCVR	ガリバー n/a (*foreign*)	baRriba	baariba (S1)	baRriba	baariba (S1–2)
					bariga	bariga (S2)		
					Rbariga	abariga (S5)	Rbariga	abariga (S5)
					Nbariga	ɴbariga (S6)	Nbariga	ɴbariga (S6)
					impossible	*impossible* (S3)	*impossible*	*impossible* (S3)
34	geN 'superstition'	geɴ	CVN	げん 験	Nge	ɴge (S1–2,6)	Nge	ŋge (S1–2,6)
					impossible	*impossible* (S3)	*impossible*	*impossible* (S3)
35	kiR 'key'	kii	CVR	キー n/a (*foreign*)	Rki	iki (S1–2,5) (S1,2 *hesitated and gave unreversed form before reversed form*)	Rki	iki (S1–2,5)
					impossible	*impossible* (S3)	*impossible*	*impossible* (S3)
					Nki	ɴki (S6)	Nki	ɴki (S6)
36	roNpa 'refutation'	rompa	rVNCV	ろんぱ 論破	paNro	paɴro (S1–3,5–6)	paNro	paãro (S1) paɴro (S2) panro (S3,5–6)

	underlying	*surface*	*pattern*	*orthography*	*transcriber 1*		*transcriber 2*	
					phonemic	*phonetic*	*phonemic*	*phonetic*
37	sjuturaN idiomatic (lit. 'from blue')	ʃutsuraɴ	CVCVCVN	しゅつらん 出藍	Nratu	ɳratsu (S1)	Nrasju	ɳraʃu (S1)
					Nratujusi	ɳratsujuʃi (S2)	Nratusi	ɳratsuʃi (S2, 5–6)
					Nratusju	ɳratsuʃu (S5–6)		
					impossible	S3	*impossible*	S3
38	sakura 'cherry blossom'	sakura	CVCVCV	さくら（サクラ） 桜	rakusa	rakusa (S1–3, 5–6)	rakusa	rakusa (S1–3, 5–6)
39	ikou 'transition'	ikoo	VCVR	いこう 移行	Rkoi	ukoi (S1–2, 5–6)	koRi	kooi (S1)
							Rkoi	ukoi (S2, 5–6)
					Rkohi	ukohi (S3)	Rkohi	ukohi (S3)
40	sinta 'died'	ʃinda	CVNCV	しんだ 死んだ	daNʃi	daɴʃi (S1–3, 5)	daNʃi	daɴʃi (S1–2)
						danʃi (S6)		daãʃi (S3, 5–6)
41	iou 'sulphur'	ioo	VVV	いおう 硫黄	uoi	uoi (S1–3, 5–6)	uoi	uoi (S1–3, 5–6)
42	baQko 'infest'	bakko	CVQCV	ばっこ 跋扈	koQba	kobba (S1–2, 5–6)	koQba	kobba (S1–2, 5–6)
43	jouiku 'bringing up a child'	jooiku	CVRVCV	よういく 養育	kuijuR	kuijuu (S1, 6)	kuiijo	kuiijo (S1)
					kuiujo	kuiujo (S2, 5)	kuiujo	kuiujo (S2, 5–6)

	underlying	*surface*	*pattern*	*orthography*	*transcriber 1*		*transcriber 2*	
					phonemic	*phonetic*	*phonemic*	*phonetic*
44	kaki 'persimmon'	kaki	CVCV	かき 柿	kika	kika (S1–2, 5–6)	kika	kika (S1–2, 5–6)
45	seNniN 'full-time'	senniɴ	CVNCVN	せんにん 専任	NniNse	ɳniɴse (S1, 5) ŋninse (S6)	uNniuNse	uũniuũse (S1)
					NniNsi	ɳniɴʃi (S2)	NnuNsi	ũnuɴʃi (S2)
							Nnise	ũnuɴse (S5)
							niNse	niĩse (S6)
46	kokusaN 'domestic'	kokusaɴ	CVCVCVN	こくさん 国産	Nsakusa	ɳsakusa (S1–2)	uNsakusa	uũsakusa (S1)
							Nsakusa	ɳsakusa (S2)
					Nsakuko	ɳsakuko (S5–6)	Nsakuko	ɳsakuko (S5–6)
47	siRNto 'in silence'	ʃiinto	CVRNCV	シーンと *n/a*	toNRsi	toɴɴʃi (S1–2) toɴɴʃi (S5–6)	toNRsi	toɴɴʃi (S1–2, 5–6)
48	keikaku 'plan'	keekaku	CVRCVCV	けいかく 計画	kukaike	kukaike (S1–2, 5–6)	kukaike	kukaike (S1–2, 5–6)
49	kikaNsi 'bronchus'	kikanʃi	CVCVNCV	きかんし 気管支	siNkai	ʃiɴkai (S1)	siNkai	ʃiŋkai (S1)
					siNkaki	ʃiɴkaki (S2, S6) ɳʃikaki (S5)	siNkaki	ʃiŋkaki (S6) ʃimkaki (S2) mʃikaki (S5)

	underlying	*surface*	*pattern*	*orthography*	*transcriber 1*		*transcriber 2*	
					phonemic	*phonetic*	*phonemic*	*phonetic*
50	aQka 'deterioration'	akka	VQCV	あっか 悪化	kaQa	kaʔa (S1, 6) kaʔʔa (S2, 5)	kaQa	kaʔa (S1, 6)
51	raQka 'falling'	rakka	rVQCV	らっか 落下	kaQra	kaʔra (S1–2, 5–6)	kaQra	karra (S1–2, 5–6)
52	gaQturi 'firm'	gattsuri	CVQCVCV	がっつり	rituQga	ritsugga (S1–2, 6) risutsugga (S5)	rituQga	ritsugga (S1–2, 5–6)
53	jaNtja 'naughty'	jantʃa	jVNCV	やんちゃ	jatjaNja	jatʃaɴja (S1)	jatjaNja	jatʃaɴja (S1)
					tjaNja	tʃanja (S5–6)	tjaNja	tʃaãja (S5–6)
					impossible	*impossible* (S2)	*impossible*	*impossible* (S2)
54	kamikami 'gods'	kamigami	CVCVCVCV	かみがみ 神々	migamika	migamika (S1–2, 5–6)	migamika	migamika (S1, 5–6) migamiga (S2)
55	raQpa 'trumpet'	rappa	rVQCV	ラッパ *n/a* (*foreign*)	paQra	paʔra (S1–2, 5–6)	paQra	parra (S1–2, 5–6)
56	jaQkai 'trouble'	jakkai	jVQCVV	やっかい 厄介	ikaQja	ikajja (S1) ikaQja (S2, 5–6)	ikaQja	ikajja (S1–2, 5–6)
57	tekami 'letter'	tegami	CVCVCV	てがみ 手紙	migate	migate (S1–2, 5–6)	migate	migate (S1–2, 5–6)
58	aQke 'stunning'	akke	VQCV	あっけ 呆気	keQa	keʔa (S1–2, 5–6)	keQa	keʔa (S1–2, 5–6)

	underlying	*surface*	*pattern*	*orthography*	*transcriber 1*		*transcriber 2*	
					phonemic	*phonetic*	*phonemic*	*phonetic*
59	kegeN 'suspicious'	kegeɴ	CVCVN	けげん 怪訝	Ngeke	ŋ̊geke (S1–2, 5) n̥eke (S6)	Ngeke	ŋ̊geke (S2) ŋgeke (S1, 5–6)
60	hokuro 'mole'	hokuro	CVCVCV	ほくろ	rokuho	rokuho (S1–2, 5–6)	rokuho	rokuho (S1–2, 5–6)
61	kikaN 'affiliation'	kikaɴ	CVCVN	きかん 機関	Nkaki	ɴkaki *or* uɴkaki (S1) n̥kaki (S2) (S5–6 *quality of initial nasal unclear*)	Nkaki	ŋkaki (S1, 5–6) mkaki (S2)
62	tobta 'flew'	tonda	CVNCV	とんだ 飛んだ	daNto	daɴto (S1–2, 6) danto (S5)	daNto	danto (S1–2, 5–6)
63	saQkaku 'illusion'	sakkaku	CVQCVCV	さっかく 錯覚	kukaQsa	kukassa (S1–2, 5–6)	kukaQsa	kukassa (S1–2, 5–6)
64	haisou 'delivery'	haisoo	CVCVCVR	はいそう 配送	usoiha	usoiha (S1–2, 5–6)	usoiha	usoiha (S1–2, 5–6)