

**TARNAKIN JERIN GWANON AMO GA CUNKOSON
BAKAKEN MARABAR GA BAR HAUSA**
 (“Sonority Hierarchy Constraint on Hausa Abutting Consonants”)

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1. Gabatarwa*

A cikin wannan takarda zan yi bayani ne a kan rawar ganin da Tarnaƙin Jerin Gwanon Amo ke takawa wajen jerin gwanon cunkoson baƙaken marabar gabar Hausa. Ba shakka an dafe da gano cewa Hausa ba ta da cunkoson baƙake a gaba, watau (“consonant cluster”), amma tana da cunkoson baƙake a marabar gaba, watau (“abutting consonants”). Ba fariya ba, a iya sanina, sama da shekara dari da aka fara bincike a harshen Hausa, ban taba ganin inda wani ya yi cikakken bincike a wannan fage na cunkoson baƙake a marabar gaba ba. Don haka zan iya cewa wannan shi ne bincike na karon farko a wannan fage da na ambata a sama. Kuma ina fata wannan zai bude ƙofa ga sauran masu sha’awar kara fafada bincike a wannan fagen.

Za a kasa wannan takarda kamar haka. Kashi na farko zai yi bayani ne a kan ire-iren yadda jerin baƙaken marabar gaba yake tare da ba da dalilan da ya sa ya kamata su zamo a hakan. Jerin baƙaken marabar gaba ba kawai suna haduwa ba ne kara zube sakaka, a’ a kowanne da inda ya kamata ya zo a layi. Misali, kalmar tsafka, an sami /f/ ta zo kafin /t/ a manne, watau /f.t/ amma ba inda za ka sami kalmar Hausa da harafin /t/ ya zo manne a bayan harafin /f/, watau misali ba *tsatfa ko *katfa da sauransu. Abin tambaya a nan shi ne Me ya sa /f.t/ za su iya haduwa amma /t.f/ ba za su hadu ba? A nan ne zan fito da Tarnaƙin Jerin

* Ina mika godiyata ta musamman ga shehunyan malamaina Paul Newman (Malam Sabo) da kuma Mu’azu Sani Zariya don shawarwarin da suka ba ni wajen kammala wannan takarda. Lalle kam na amfana sosai da gyare-gyaren da suka ba ni.

Gwanon Amo da kuma nuna irin rawar ganin da yake takawa wajen kansancewa ko rashin kasancewar jerin gwanon cunkoson bařake a marabar gaba wajen gina kalmomin Hausa da sarrafa kalmomin aro.

Kashi na biyu kuwa zai tattauna ne a kan yadda Hausa ke sarrafa bařin kalmomi musamman na Turanci don su dace da tsarin sautin Hausa, watau “Hausa phonological system”.

Kashi na uku kuwa zai yi tsokaci ne kan alařkar da Tarnařin Jerin Gwanon Amo da wannan takarda ta fito da shi (dangane) da sauran dokokin tsarin sautin Hausa da suka shafi wannan fage. A kashi na huđu kuwa wanda shi ne na ƙarshe zai d'an yi bayani ne a kan irin tsarmin wasalin (“epenthesis”) da ya kamata a zaba wa kalmar aro tare da hasashen irin launin tsarmin wasalin.

A ƙarshe, wannan takarda za ta rufe da jawabin kammalawa tare da ba da shawarwarin irin sauran binciken da ya kamata a ci gaba da yi don fadafa wannan fage. Haka kuma za a yi amfani da alamar lamba # don nuna farko da kuma karshen kalma, zan kuma yi amfani da alamar d'ugo watau . don nuna marabar gaba. Misali, kalmar *tsafita* za ta zama kamar haka: #*tsaf.ta#*, ka ga a nan harufan /f/ da /t/ suna manne da juna, amma a marabar gaba. Daga ƙarshe kuma alamar tambaya ? na nuna kalmar duk da cewa ba ta da ma'ana a Hausa, amma ba ta saba wa sigar tsarin sauti ko tasarifi na Hausa ba.

2. Sigar Jerin Bařaken Marabar Gaba

Babu shakka kowa ya dubi zubi da tsarin kalmomin (1a–e) ya san kalmomin Hausa ne kuma akwai su a cikin ƙamus na Hausa tare da ma'anarsu. Amma in ka dubi na (2a–e) za a ga cewa su ma zubi da tsarinsu irin kalmomin Hausa ne, sai dai kash! ba za ka same su a kowane irin ƙamus na Hausa ba kuma ba su da ma'ana, watau an sami gibii mara dalili, watau da Turanci (“accidental gap”). Daga ƙarshe in aka lura da jerin kalmomin (3a–e), za a ga cewa ba su hau zubi da tsari na kalmomin Hausa ba, kuma bugu da ƙari babu su a cikin ƙamus na Hausa ballantana ma a ba su ma'ana, wannan kuma ana ce masa (“systematic gap”).

(1a)	<i>birni</i>	(1b)	<i>talge</i>	(1c)	<i>barka</i>	(1d)	<i>fuska</i>	(1e)	<i>tsafita</i>
(2a)	? <i>marnu</i>	(2b)	? <i>gulge</i>	(2c)	? <i>zarko</i>	(2d)	? <i>saska</i>	(2e)	<i>nafto</i>
(3a)	* <i>binri</i>	(3b)	* <i>tagle</i>	(3c)	* <i>bakra</i>	(3d)	* <i>fuksa</i>	(3e)	* <i>tsatfa</i>

Wannan takarda za ta yi tsokaci a kan ire-ireni kalmomin (1) da na (3) ne kawai don amsa wannan tambaya: Me ya sa kalmomin (1) suke karbařbu amma na (3) ba karbařbu ba? A nan, kalmomin (2) ba su a cikin ƙamus na Hausa amma ba su

keta wata ḫa'ida ta tsarin sauti ko tasarifi na Hausa ba, don haka ba mu da magana a kansu domin harshen ne kawai ya sami wannan gibī na tsautsayi ba da niyya ba. Amma bambancin kalmomin (1) da na (3) lalle kam suna bukatar bayani domin rashin karfuwar kalmomi na (3) yana da dalili a sigar tsarin sauti da tasarifi na Hausa.

A nan za a ga ashe cunkoson baƙaƙen marabar gaba ba kawai sakaka suke kara zube ba, suna da nasu tsarin na bi-biyar junna. To kuma a nan ne ya kamata na gabatar da wani tarnaƙi da zai warware wannan matsala. Kamar yadda masana tsarin sauti suka bayyana, amo yana da wani jerin gwano da ya kamata ya kasance. A Hausa, tarnaƙin amon da ke gudanar da kasancewa ko rashin kasancewar jerin cunkoson baƙaƙen marabar gaba na dangana da taikeitaccen Tarnaƙin Jerin Gwanon Amo kamar yadda yake a (4) tare da yadda aka fadfa'a bayaninsa a (5)

(4) *dangin wasulla > ruwantau > 'yan hanci > takurau*

Don kara fito da wannan tarnaƙi baro-baro a fili, to ga yadda cikkaken jerin gwanon amon Hausa zai zama a lamba (5):

(5) *dangin wasulla* (wasulla > sulalau) > *ruwantau* (raa-kafe da raa-ɓuje > 'yan jirge) > *'yan hanci* (balebe > hantacciya) > *taakurau* (zozau > 'yan buga)

In aka duba da kyau za a ga jerin misalan sautuka da suka dace da wafanda ba su dace ba kamar yadda ya zo a (6) ya danganta ne da tarnaƙin da yake lamba (5). Watau, karfiabbiun kalmomin sun bi jerin gwanon tarnaƙin (5), amma kalmomin da ba su karbu ba, lalle kam za a ga sun saba wa wannan tarnaƙi da aka fito da shi a wannan takarda kamar yadda yake a (5)

- | | |
|---------------------------|-----------------|
| (6) a. zozau – 'yan buga | fuska, tsafta |
| *'yan buga – zozau | *fuksa, *tsatfa |
| b. ruwantau – zozau | tarfa, salsala |
| *zozau – ruwantau | *tafra, *tasla |
| c. 'yan hanci – zozau | gamsu, danshi |
| *zozau – 'yan hanci | *gasmu, *kafna |
| d. 'yan hanci – 'yan buga | hanta, gamba |
| *'yan buga – 'yan hanci | *katna, *habma |
| e. ruwantau – 'yan buga | kwalbaa, talge |
| *'yan buga – ruwantau | *tabla, *sagla |

Wannan ya nuna mana cewa duk lokacin da aka samu cunkoson bakaken marabar gaba, lalle kam *bakin keyar gaba* watau (“coda”), ya zama amonsa ya d'ara na *bakin goshin gaba*, watau (onset) kenan kamar yadda yake a (5). Ga wannan doka a lamba (7).

(7) Lalle ne amon *bakin keyar gaba* ya d'ara *bakin goshin gabar da suke manne da juna a marabar gaba*

Da ma tuni an fafa a baya cewa shekaru aru-aru Hausa ta hana cunkoson bakafe a cikin gaba, watau ba dama a samu cunkoson bakaken keyar gaba ko na goshin gaba a cikin gaba daya kamar yadda yake a Turanci. Ita wannan doka za a bayyana ta a takaice a lamba (8).

(8) *\$BB da kuma *BB\$

Da wadannan dokoki da aka bayyana a sama tare da dan bayanin da aka yi ya ba da hasken amsa tambayar da aka yi a baya cewa me ya sa kalmar tsafka ta ke karbabbiya a Hausa amma *tsatfa ba karbabbiya ba. Jerin gwanon *t.f* a kalmar tsatfa ya saba wa dokar tarnaki ta (5) da kuma ta (7); domin lalle *bakin /t/ ya gaza na /f/ a amo* kamar yadda yake a (5), don haka kalmar ba za ta karbu ba. Amma jerin gwanon *f.t* a kalmar tsafka ta karbu domin *bakin /f/ yana sama da na /t/ a amo*. Haka in aka duba wadannan kalmomi na (9) za a ga duk inda cunkoson bakaken marabar gaba yake, to *bakin keyar gaba* ya d'ara *bakin goshin gaba amo*, *sabanin jerin kalmomi na (10)* in da *bakin keyar gaba* ya gaza *bakin goshin gaba amo*.

(9) fus.ka, gam.su, gwan.ki, far.kaa, kal.ma, fiz.ge, sar.ki, kar.ta, bir.ge, gam.ji, gam.zaki, Tal.ba, tal.ge, kal.ma, faw.ce, kaw.na, baw.ta, am.sa, Gam.bo

(10) *fuk.sa, *ga.smu, *gwak.ni, *fak.ra, *kam.la, *fig.ze, *sak.ri, *kat.ra, *big.re, *gaj.mi, *gaz.maki, *Tab.la, *tag.le, *fac.we, *bat.wa, *Gab.mo

Yanzu kuma lokaci ya yi da a yi magana a kan *bakin /r/* da na /n/ a wannan wuri saboda 'yar rikirtarwa da suke da ita. *Bakin /n/* na zuwa kafin *bakin* da ya d'ara ta amo kamar yadda ya zo a misali na (11).

(11) a. *kanwa*, b. *kanya*

Idan za a yi la'akkari da ka'idar (5) da (7), ya kamata a ce wadannan kalmomi na (11) su zama ba karbaßbu ba domin /w/ ya ðara /n/ amo, amma ga shi ba haka ba ne. Wannan yana faruwa ne saboda ita /n/ kullum na nasa ne da bakin da ya zo gabanta, don haka a furuci ba a faðar /n/ kamar yadda take ita kafai. Wannan abu ne sananne da ba ya bukatar dogon bayani a kai.¹

3. Sarrafa Bakin Kalmomi

A wannan kashi za a yi tsokaci ne a kan yadda Hausa ke sarrafa bakin kalmomin da suka shigo mata masu cunkoson bakañe a gaña. Ga misalan kalmomin Larabci a (12) da na Turanci a (13):

(12)	<i>Larabci</i>	<i>Hausa</i>
a.	Badr	(yakin) badar
b.	qibla	kibila
c.	al'asr	la'asar
d.	Ùabru	kabari
e.	Abubakr	Abubakar

(13)	<i>Turanci</i>	<i>Hausa</i>
a.	library	laburare
b.	doctor	daftan
c.	secretary	sakatare
d.	taxis [taksi]	tasi
e.	England	Ingila

Idan aka duba wadannan misalai na (12) da (13), za a ga yadda kalmar ta zo daga harshen farko ba haka ta kasance a Hausa ba. Domin da ma sananniyar ka'ida ce a Hausa cewa in ta ari wata kalma, to lalle ne ta daidaita ta inda za ta iya hawa tsarin sauti da tasarifin harshen daram.

¹ Amma inda matsalar take a bakin /r/ ne, wanda ita ma na zuwa kafin bakin da ya ðara ta amo kamar yadda misalai na (i) suka nuna a fili. (i) a. karkarwa b. karya c. kuturwa. A nan za a ga cewa duka /r/ biyu da muke da su, watau raa-kade da raa-buje, duk sun gaza bakaken sulalau /w/ da /y/ amo, amma duk da haka kalmomin sun karbu. A fili za a ga kamar wata ce babba, amma ba haka ba ne, a tarihance jerin gwanon *n.w / n.y* da *r.w / r.y* suna hada da ðafan jinsin mace na (i)yaa ko (u)waa kamar yadda yake a misalin kare da kar-ya. Don neman karin cikakken bayani duba Newman (1979 shafi na 197-226) ko kuma Newman (2000 shafi na 213-215).

To a nan kowa ya sani tuni Hausa na amfani da tsarmin wasali, ko canza wani baķi da wani, ko share shi da dai sauran hanyoyin daidaita kalma. Abin lura a nan shi ne, kowa ya yarda Hausa na yin wađannan abubuwa ne don kaucewa cunkoson baķake na gaba da babu a Hausan. Wannan shi ne bayanin da aka saba shekaru da yawa.

In aka lura da kyau abin ya wuce nan. Misali, d'auki (13b), za a ga ko a Turancin kalmar *doctor* na da gaba biyu, to in ko haka ne, me ya sa Hausawa suka fi barinta a haka, sai da suka canza harafin /k/ ya koma /f/? Ni a nan ba wani dalili ba ne ya jawo hakan illa kalmar ta saba wa doka ta (7). Saboda me? Saboda haduwar *k.t* a manne ba ta cikin tsarin sautin Hausa domin /k/ ya gaza /t/ amo, don haka aka canza /k/ din da harafin /f/ wanda ya d'ara na /t/ amo. Inda kuma za a san wannan magana haka take shi ne, in aka sami inda baķaken biyu suka hadu a ita kalmar ta asali, kuma baķaken ba su saba ka'ida ta (7) ba, to wannan kalmar haka Hausa za ta bari, ba za ta sa wani wasali ko canza harafin ba kamar yadda ta yi a kalmar *doctor*. Kwatanta (14) da (15) don fito da misalan baro-baro:

	<i>Turanci</i>	<i>Hausa</i>
a.	computer	kwamfyuta
b.	television	talbijin
c.	plank	filanki
d.	minister	minista
e.	ice cream	askirin
(15)		
a.	governor	gwamna
b.	doctor	daftan

Abin da ake cewa a nan shi ne, a misali na (14), duk baķaken da suka hadu a kalmomin Turancin sun dace da ka'ida ta (7) don haka da suka zo Hausa ba wani canji da ake bukata. Amma a misalai na (15) da yake haduwar baķaken ta saba wa ka'ida ta (7), lalle sai sun sami d'aya daga cikin hanyoyin daidaita kamar yadda misalan (15) suka nuna. Don haka ba daidai ba ne a ce wai Hausa na raba cunkoson baķake don kawai ba ta da cunkoson baķaken a gaba kawai, a'a, har da ma koķarin kauce wa saba wađannan ka'ida da wannan takarda ta fito da ita a (7) kamar yadda ya gabata. Wataķila za a iya cewa tsarmin wasali ne kadai ya shafi maganar raba cunkoson baķake kai tsaye, amma sauran hanyoyin daidaita kalmomin aro suna da alaka mai karfi da abin da wannan takarda ta fito da shi na tarnakin jerin gwanon amo a cunkoson baķaken marabar gaba.

Daga cikin hanyoyin da Hausa take bi don kauce wa ka'idojin da wannan takarda ta fito da shi sun hada da musayar baki kamar yadda aka misalta a (15). Haka kuma akwai tsarmin wasali wanda ya kasu gida uku; akwai na farkon gaba (16), akwai kuma na tsakiyar gaba (17) sannan akwai na karshen gaba (18). Daga karshe akwai sharewa ko yar da baki wanda shi kuma ya kasu gida biyu: akwai share bañin tsakiyar gaba (19), sannan kuma akwai na karshe gaba (20).

(16) *Tsarmin wasalin farkon gaba*

	<i>Turanci</i>	<i>Hausa</i>
a.	glass	gilashi
b.	brush	burushi
c.	scale	sikeli
d.	driver	direba
e.	price	farashi

(17) *Tsarmin wasalin tsakiya*

	<i>Turanci</i>	<i>Hausa</i>
a.	headmaster	(s)hedimasta
b.	railway	reliwe
c.	signal	sigina
d.	typewriter	tafireta
e.	microphone	makurofo

(18) *Karin wasalin karshe*

	<i>Turanci</i>	<i>Hausa</i>
a.	stamp	sitamfi
b.	bench	benbi
c.	bank	banki
d.	change	canji
e.	plank	filanki

(19) *Share bañin tsakiyar gaba*

	<i>Turanci</i>	<i>Hausa</i>
a.	loud speaker	lasifika
b.	handkerchief	hankici
c.	sandpaper	samfefa
d.	grand valve	garambawul
e.	crankshaft	karanshaf

(20) *Share baki karshen gaba*

	<i>Turanci</i>	<i>Hausa</i>
a.	communist	kwaminis
b.	carrots	karas
c.	(bank) draft	diraf
d.	belt	bel
e.	yeast	yis

Babu shakka wadannan misalai suna bukatar bayani filla filla. Tuni dai an yi bayani game da misalai na (15) inda ake samun canjin baki da wani baki wanda aka nuna ana canjin ne don samo baki da ya fi baki goshin gabar da ke manne da shi amo. Kamar yadda misalai na (18) suka nuna yadda ake kara wasali a karshen kalmar aro, misalai na (16)-(17) kuwa suna magana ne a kan tsarmin wasali tsakanin cunkoson bakaken tun da Hausa ba ta da shi. Bayani kan wane irin wasali ya kamata a sa a tsakanin bakaken abu ne da yake bukatar wani bincike mai zaman kansa, wanda a yanzu ba za mu iya yi ba. Su ko misalai na (19)-(20) na magana ne game da share baki daga bakaken da suke manne da juna. To a nan ma fa share wannan baki ba kawai sakaka yake ba, shi ma da nasa tsarin. Idan aka yi la'akkari da duk misalan (19)-(20) za a ga ana share baki da ya gaza dayan amo ne, ba wai kowanne aka ga dama ake yar wa ko sharewa ba.

Daga karshe, ya kamata a fadakar game da rashin haduwar bakaken 'yan buga mabambanta ("different stops") da gwarman bakaken ("double consonants and diagraphs") a matsayin bakaken marabar gaba, kamar su yadda (21) suka nuna.

(21) *d.k.; *k.d; *k.b; *g.b; *b.d; *d.b; da *gygw, *gwgy, *shts, *tssh, *gwsh, *kyts, ds

Wannan an takaita shi kamar haka: *XY inda X da Y suna da siffar tsarin sauti ("features") iri daya.

4. Alakar Tarna'kin Jerin Gwanon Amo da Sauran Dokokin Tsarin Sautin Hausa

A wannan sashi kuma za a dan yi bayani ne a kan alakar tarna'kin jerin gwanon amon da wannan takarda ta fito da shi (5) da sauran dokokin tsarin sautin Hausa. Da farko za a fara da abin da kowa ya fi sani da Dokar Klingeheben wadda take sassauta bakaken 'yan handa su koma wasalin /u/ kamar yadda misalan (22) da (23) suka nuna.

(22) 'Yan hand'a:

- | | | | |
|----|---------|---|------------------|
| a. | talakci | = | talauci (talaka) |
| b. | hagni | = | hauni (hagu) |
| c. | zukciya | = | zuuciya (zukata) |
| d. | hakre | = | haure (hakori) |
| e. | bakna | = | bauna (bakane) |

(23) Lebawa:

- | | | | |
|----|-------------|---|-------|
| a. | Abdu | = | Audu |
| b. | kabri | = | kauri |
| c. | safka | = | sauka |
| d. | amre | = | aure |
| e. | af! | = | au! |

Abin lura a nan shi ne, wannan dadafdiyar doka ba wani abu take cewa ba illa kalmomin (22) sun saba wa dokokin na (5) da na (7) na wannan takarda, don haka lalle wafannan baķake da suka gaza na gabansu amo a sama musu wafanda suka dara na gaban amo, shi ya sa aka d'auki harafin /w/. Me ya sa aka zabi wannan baki na /w/ da ire-irensu, abu ne da shi ma yake bukatar bincike mai zaman kansa.

Haka in aka kula da wasu misalan kamar na (24), su ma sun yi daidai da na (22) da (23) wajen kauce saba wa wafannan ka'idoji na (5) da na (7).

- (24) a. *fatke = falke (= farke)
 b. *annabta (daga annabi+ta) = annafta
 c. *d'alibta (daga d'alibi+ta) = d'alifta
 d. *zubda = zufda

A nan za a ga dokar Klingenheben ba ta yi amfani ba, domin ta kasa sassauta lebawa su koma /w/ kamar yadda suka yi a (23) (Newman 2000). Watakila wani zai iya cewa wannan ya faru ne saboda lebawa a nan ba a asalin kalma suke ba, dafau ne ("affixes"). In ko haka ne, to lalle ana bukatar wata takarda mai zaman kanta don ta tabbatar da bambancin baķaken asalin kalma ("lexical consonants") da bakaken nahawu, watau ("grammatical consonants") da Turanci. Amma a wannan takarda babu wata matsala ko neman hasashe domin lebawan misalai na (24) dole su koma 'yan atishawa ("fricatives") wanda sun d'ara baķaken da ke manne da su a gaba amo. Yin haka sai ya dace da abin da muke da'awa a dokoki na (5) da na (7). Haka kuma Newman (2000) ya nuna cewa dokar Klingenheben

ta bambanta da ta dokokin ninki (“laws of reduplication”) kamar yadda misalai na (25) suka nuna.

- (25) a. *fik-fike (= fika-fiki) = fiffike
 b. *sak-saka = sassaka
 c. *bug-buga = bubbuga
 d. *daf-dafa = daddafa
 e. *lab-labe = lallabe

Wannan bambanci bai shafi wannan takarda ba, domin dai babu misalan da suka saba wa wannan da'awa da wannan takarda ta fito da shi na tarnakin jerin gwanon amo. Haka dai labarin yake da 'yan tsinin harshe ("coronals") a misalai na (26) ba sai na sake wani dogon bayani ba.

- (26) a. *mats-matsa = marmatsa
 b. *had-hada = harhada
 c. *kats-katsa = karkatsa
 d. *kas-kashe = karkashe

Daga karshe zan rufe wannan sashi da tsokaci a kan alakar wannan bincike da tasarifin Hausa. Had'a dafau masu farawa da baki na bukatar bayani ko yaya yake? Misali, in za a kara wa wata kalma harafin dafau a karshe, galiban Hausa na yar da wasalin karshe na asalin kalmar kamar yadda misalai na (27) suka nuna.

- (27) a. mota mot-oci f. kane kan-wa
 b. yaro yar-a g. dako dak-a-ta
 c. adali adal-ci h. Kano Kan-anci
 d. yaro yar-inta i. cika cik-owa
 e. saya say-e j. buwaya buway-i

Amma in aka duba misalai na (28) lamarin ya sha bamban. A nan za a ga wasu wuraren an bar wasalin asalin kalmar, wani wurin kuma an share shi. To me ya sa hakan yake faruwa? Amsa a nan ita ce, wannan yana faruwa ne saboda dacewa ko rashidacewa da ka'idoji na (5) da na (7). Dauki misalai na (28) don karin bayani.

- (28) a. karantaa + waa = karantaaawaa
 b. muuguu + waa = muuguwaa
 c. cikaa + sa = cikaasa

d.	awoo	+ naa	=	aw-naa
e.	aadalii	+ cii	=	adal-cii
f.	tayaa	+ makoo	=	tay-makoo
g.	taraa	+ koo	=	tar-koo
h.	shariifii	+ taa	=	sharif-taa
i.	saafee	+ makoo	=	*saf-makoo = sammakoo
j.	abookii	+ taa	=	*abook-taa = abow-taa (= abootaa)

A misalai na (28a)–(28c) dole a bar wasullan asalin kalmar domin in aka share su kamar yadda aka yi a (27), to kalmomin za su kasance kamar haka: *karantwa; da *mugwa da *ciksa. Harafin /t/ ya zo bayan /w/ ya saba wa dokoki na (5) da na (7) domin /w/ ya dara /t/ da na /g/ amo. Haka lamarin yake da *ciksa inda harafin /s/ ya dara na /k/ amo. To amma in aka duba misalai na (28d) da (28e) lamarin ya sake fitowa fili. A kalmomin *awoo* da *aadalii* an share wasullan domin bakaken da aka bari in sun hadu da dafau na *-na* da *-ci*, bakin karshen kalmomin sun fi na dafan amo, don haka sun dace da ka’idojinmu na (5) da na (7). Haka labarin yake a sauran misalai na (28f)–(28h). In ko aka lura da ragowar misalan (28i) da na (28j), za a ga an sami canjin /f/ zuwa /m/ da kuma canjin /k/ zuwa /w/. Wannan ya faru ne don cika ka’idar nan ta (7) wadda take cewa lalle bakin keyar gaba ya dara na goshin gaba amo, don haka *safmakoo da aboktaa suka zama ba karbaffu ba don /f/ ta gaza /m/ amo, haka ma /k/ ya gaza /t/ amo, ko kuma a ce duk /k/ da /t/ ’yan buga ne mabambanta.²

5. Zaßen Tsarmin Wasali

A wannan sashi za a yi dan kokari ne a kan irin yadda mutum zai kirdaji (“predict”) irin tsarmin wasalin da ya kamata a sa wa kalmar aro mai cunkoson bakake a gaba. Za a gina wannan kirdado a kan rikidar wahainiyar (“context colouring”) da tsarmin wasali yake yi don kokarin daidaita bakuwar kalma don ta dace da tsarin sautin Hausa. Amma tsokano rigima babba za a yi domin wannan fagen yana bukatar cikakken bincike mai zaman kansa ba sharar fage irin wanda zan yi yanzu ba.

² A ganin Paul Newman, share wasalin Karshe na tushe ko rashin share shi bai shafi wannan tarnaki ba kamar yadda nake so na nuna. Newman na ganin wannan abu ne da ya shafi tarasifi (“morphological formation”) ba tarnakin amo ba (“phonological strength”). A gaskiya maganarsa tana da kanshin gaskiya, sai dai kawai in ce wannan ya zama wani fage da yake bukatar wani bincike don tabbatar da gaskiyar lamarin ko akasin hakan.

Da farkon akwai abin da mai karatu ya kamata ya d'an sani game da shi kansa tsarmin wasali. Masana tsarin sautin harsuna sun gano cewa sigar tsarin furucin (“phonetic feature”) tsarmin wasali d'an alamtuwan baki ne (“minimally marked”), kuma yana d'aukar hoton launin da ke biye ko gaba da shi (Ito 1986, Lowenstamm and Kaye 1986). Bugu da kari kuma, masanan tsarin sautukan dai sun nuna cewa, bincike na sauran harasan duniya ya nuna cewa wasalin gaba na -i shi ne wasalin asali (“default”) aka fi zaba don ya zama tsarmin wasali. Wasu harsunan sukan zabi bakin sulalau na -y wanda yake takwaran wasalin -i ne (McCarthy & Prince 1993, Prince & Smolensky 2004).³

Wannan magana ko ta sake tabbatuwa a Hausa, domin yawancin tsarmin wasali a Hausa shi ne -i. Kuma shi wannan baki na -i ya zo ne a farkon gaba, tsakiya ne ko kuma karshen gaba.

(29) *Farkon gaba:*

a.	glass	=	gilashi
b.	stamp	=	sitam
c.	scale	=	sikeli
d.	driver	=	direba
e.	premier	=	firemiya

(30) *Tsakiyar gaba:*

a.	headmaster	=	hedimasta
b.	singlet	=	singileti
c.	ice cream	=	askirin
d.	England	=	ingila
e.	signal	=	sigina

(31) *Karshen gaba:*

a.	stamp	=	sitamfi
b.	bucket	=	bokiti
c.	garage	=	gareji
d.	clutch	=	kuloci
e.	card	=	kati

³ Tuni aka yi bayani game da bakin /r/ cewa ya zame mana togaciya, don haka misalai kamar haka ba mamaki ba don ganin /r/ ta d'ara /w/ amo ba, wanda ya kamata a ce kalmomin ba su sami karbuwa ba.

kuturu +wa ko -aa	=	kuturwaa
karee + yaa ko -aa	=	karyaa

To amma fa ba haka abin yake ko da yaushe ba, a wasu wuraren za a sami tsarmin wasalin yakan zama na -*a* ko -*u* kamar yadda misalai na (32) da (33) suka nuna a jere.

(32) *Wasalin -a*

a.	spare	=	safaya	a	<i>farkon gaba</i>
b.	price	=	farashi	a	<i>farkon gaba</i>
c.	private	=	farabiti	a	<i>farkon gaba</i>
d.	secretary	=	sakatare	a	<i>tsakiyar gaba</i>
e.	Abubakr	=	Abubakar	a	<i>tsakiyar gaba</i>
f.	Badr	=	badar	a	<i>tsakiyar gaba</i>
g.	Isra'el	=	Isira'ilā	a	<i>karshen gaba</i>

(33) *Wasalin -u*

a.	clutch	=	kuloci	u	<i>farkon gaba</i>
b.	trouser	=	turoza	u	<i>farkon gaba</i>
c.	brush	=	burushi	u	<i>farkon gaba</i>
d.	plot	=	fuloti	u	<i>farkon gaba</i>
e.	microphone	=	makurofo	u	<i>tsakiyar gaba</i>
f.	railway	=	reluwee	u	<i>tsakiyar gaba</i>

Tun da a misalai na (32) da (33) an samu wasu wasullan ban da na -**i**, to lalle kam ya kamata a ce me ya sa hakan yake faruwa. Shin wannan haka yake sakaka ko shi ma yana da nasa tsarin? A hañika, ba haka yake sakaka ba, akwai doka da ya kamata a kiyaye kafin tsarmin wasali. A nan za a fito da dokar tsarmin wasali a Hausa ta zama kamar haka (34).

(34) *Tsarmin wasali na rikidar wahainiya da launin wasalin da ke daf da cunkoson bakaken bakuwar kalmar.*

Wato abin da nake nufi a nan shi ne, in an zo za a raba cunkoson bañake na gabar bañuwar kalma, tsarmin wasalin da za a saka yana d'aukar launin wasalin da ya fi kusa da na asalin wasalin da yake cikin ita kalmar ta asali. Ka dubi misalai na (32) za ka ga lalle wasalin asalin kalmar na da tasirin wajen irin wasalin da aka tsarma. Watau, in kalmar na da wasalin -*a* ko wanda yake makamancinsa a siga a dama ko hagu na gabar da za a tsarma wasalin, to sai a sa wasalin -*a*. In ko wasalin kalmar na da -*u* ko mai makamancin sigarsa, to sai a sa wasalin irin na -*u* din kamar yadda misalai na (33) suka nuna. Wannan shi ne rikidar wahainiyar da

tsarmin wasali yake yi, domin ita wahainiya tana rikida ne da irin launin abin da ta taka ko take a kai a lokacin.

In aka yi la'akkari da sigar wadannan wasulla guda biyu, watau na asalin kalmar aron da shi tsarmin wasalin da aka sa wa ita kalmar Hausa, za a ga kam lalle akwai rikifar wahainiya tsakaninsu.⁴

6. Jawabin Na'ewa

A wannan takarda an fito da yadda sigar ba'aken marabar gabar Hausa suke bisa zubi da tsarinsu tare da nuna cewa ba haka suke kara zube ba. Kuma a takardar dai an ga alakar Tarnakin Jerin Gwanon Amo ya yi tasiri a kan wasu dokokin tsarin sautin Hausa da tasarifiinta. Wannan ya taimaka wajen rage wasu dokokin zuwa doka d'aya da aka fito da ita a (7).

Haka kuma takardar ta yi tsokaci a kan wasu matsaloli don fasada wannan bincike. Kuma an nuna wadannan matsaloli suna bukatar bincike mai zaman kansa.

Misali, an nuna me ya sa aka zafi wannan baki na /w/ da ire-irensu wajen sassauta furucin harafi kamar yadda dokar Klingenberg ta tanada abu ne da shi ma yake bukatar bincike mai zaman kansa.

An yi hasashe kan cewa wata'ila wani zai iya cewa wannan ya faru ne saboda lebawa a nan ba a asalin kalma suke ba, dafau ne. In ko haka ne, to lalle ana bukatar wata takarda mai zaman kanta don a tabbar da bambancin ba'aken asalin kalma (“lexical consonants”) da ba'aken nahawu, watau (“grammatical consonants”) da Turanci. Ko kuma a ce tarnakin jerin gwanon amo yana da tasiri ne kawai ga ba'aken asalin kalma ban da na d'afau. Kowanne mutum ya zafa, abu ne da yake bukatar hujja mai karfi.

Daga karshi kuma wannan takarda ta dan yi mtsokaci dangane da irin tsarmin wasalin da ya kamata a sa wa kalmar aro. A nan kuma an nuna cewa tsarmin wasalin na samun tasiri da irin wasalin da ke cikin ba'uwarr kalmar ta yadda yake d'aukar hoton launin wasalin ba'uwarr kalmar.

Fata a nan, wannan takarda za ta zaburda sauran masu bincike musamman a wannan fanni da aka bar shi a baya. Bugu da karshi, tun da wannan takarda ita ce kamar ta farko wadda ta fede sigar cunkoson ba'aken marabar gaba da yanayin tsarmin wasali filla filla, babu shakka kurakurai da gyare-gyare ba sai an fada ba, suna nan rututu.

⁴ Ba ni da wani dalili mai karfi da za a iya fada game da samuwar wasullan -a karshen gaba a yanzu kamar yadda misalai na (32g) da na (32h) suka nuna

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Sonority Hierarchy Constraint on Hausa Abutting Consonants (English Summary)

Hausa does not have true consonant clusters (i.e., sequences of two or more consonants functioning as syllable onsets or codas). It does, however, have abutting consonants where the consonantal coda of one syllable is followed by the onset of the next. Words borrowed into Hausa are generally modified to fit into the language's pre-existing phonological system. For example, elimination of clusters in the source word usually involves some adjustments such as epenthetic insertion and segmental replacements or deletion. In section 1 of the paper, I show that abutting consonants sequencing in Hausa is severely and systematically limited by a Hausa Sonority Hierarchy namely, *Vocoids* (vowels > glides) >

liquids (lateral and flap/trill)) > *nasals* > *obstruents* (fricatives > stops). Based on this hierarchy one can state a general sonority constraint rule for Hausa that “Codas must be higher in *sonority* than adjacent abutting Onsets.”

Section 2 sets out the strategies employed to eliminate consonant clusters found in borrowed words, mainly from English. These strategies may apply in syllable-initial, syllable-medial, or syllable-final position.

Section 3 deals with the interaction of the Sonority Constraint with other Hausa phonological rules. In particular, Klingenheben’s Law, the Law of Codas in Reduplication, and the treatment of codas in morphological processes are discussed.

Finally, section 4 attempts to predict the choice of the epenthetic vowel used to avoid unwanted clusters in loanwords based on the contextual coloring of the neighboring vowel.

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