

CONSONANT CLUSTER IN BAGHDADI ARABIC PHONOLOGY

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Abstract

This paper examines the consonant cluster in Baghdadi Arabic. The Consonant cluster (CC) refers to a sequence of two or three consonant sounds in single word. Vocalization of Baghdadi Arabic reveals of two or three consonants sequences in a word. The consonant clusters (CC) in Baghdadi Arabic are either initial or medial. Most CC in Baghdadi Arabic is likely to occur as initial clusters except for a few sounds. The data of this study is based on the qualitative method which collects views, opinions, materials and earlier studies on CC in Baghdadi Arabic. First, an introduction is given concerning the subject followed by a framework and a snap overview. Consonant cluster is elaborated on in the word-level in which consonant cluster is surveyed according to sequences or phonemes. Also, other areas of Consonant cluster formations such as plurals, ellipsis, borrowing, and diminutive are discussed. The paper reaches certain findings and conclusion.

KEYWORDS: Baghdadi Arabic, Consonant Clusters, Sound Sequences, Standard Arabic, Syllables.

1. Introduction:

Consonant cluster, CC, is any sequence of adjacent consonants occurring initially or finally in a syllable, such as *br-* in *break* and *-st* in *vest* '(Crystal, 1992:66) and (Wikipedia, 2019:10). Baghdadi Arabic, BA generally reveal CC. This chapter explores this area of BA as it is used in urban dialect in Central Iraq. The CC in BA examined here is initial and medial; two consonants *pre-medial* plus *initial* in initial position and two consonants *pre-medial* plus *medial* in medial position.

2. Background and Framework

Standard Arabic, SA, does not exhibit initial or medial CC's. It shows final CC's especially in monosyllabic word such as *rasm* (drawing), *ism* (name), *ḥarb* (war), etc. This is because SA is VCV or CVC (Abdul-Sada, 2011 as cited in Rahim, 1980: 12., Rose, 2000:15, Kiparsky, 2005:32, and Erwin, 2004:21). In any case, medial CC's are likely to happen in words which are not monosyllabic i.e. when there is more than one syllable in the word, as in words like *khamsa* (five), and *māsrāḥiyā* (play; drama).

Unlike the SA, BA shows occurrence of CC's, particularly in initial and medial positions. Except from the medial CC's which are already present in words in SA as they exist post-lexically in words whether they are in SA or BA, initial CC's are initiated by factors as the rapid speech, the lexical form of the word, and to less extent the syllabicity of that word. Hence, for instance, the word *huna* (here) in SA is pronounced in most of the times as *hna* in BA.

3. Cluster Allocation at the Word-Level

Due to the importance of CC's, particularly initial CC's, CC's will be considered primarily at individual words rather at the grammatical behaviors in which these words are used. CC's are discussed according to their positions in the word. Phonemes are co-grouped on the basis of their sameness as to both manner and place of pronunciation. Ten phonemes groupings of the cluster distribution that will be examined, they are:

i. /s/, /ś/ and /z/

ii. /θ/, /ð/ and /ḏ/

iii. /ā/ and /h/

iv. /ǧ/ and /kh/

v. /b/, /t/, /d/, /ṭ/ and /q/

vi. /k/ and /g/

vii. /f/, /š/ and /h/

viii. /j/ and /č/

ix. /m/ and /n/

x. /r/ and /w/

i. /s/, /ś/ and /z/

These phonemes are alveolar in place of verbalization and fricative in manner of pronunciation. In fact both /z/ and /s/ voiced, while /ʒ/ is voiceless. /ʒ/ differs from the other two phonemes in that it is pronounce with the back of the tongue near the soft palate i.e. velarized.

Table 1: *Phonemes of the Cluster Distribution*

Phonemes	Initial Position	Medial Position
/s/	followed by the following sounds: /n/, /f/, /y/, /b/, /l/, /k/, /p/, /m/, and /h/; For example: <i>snoon</i> (teeth), <i>sneen</i> (years), <i>sfānij</i> (sponge), <i>syoof</i> (swords), <i>sbēnağ</i> (spinach), <i>slaħ</i> (weapon), <i>skafee</i> (shoe-maker; shoe-repairer), <i>sbanə</i> (spanner), <i>sbuâtēâēš</i> (seventeen), <i>spagit-tee</i> (spaghetti). (Al-Khalesi, 2004:96).	is preceded in medial position by /m/, /b/, /w/, /k/, /h/, /t/ and /j/ ; therefore <i>bismar</i> (nail), <i>māsbāħ</i> (swimming pool), <i>āswād</i> (black), <i>āsmār</i> (brown-faced), <i>yiskit</i> (to be silent), <i>yishār</i> (to stay late), <i>yistiħee</i> (to be shy), <i>yisjid</i> (to prostrate(in prayer) , <i>yismān</i> (to be fat), (Woodhead and Beene,1967:123).
/ʒ/	preceded by /b/, /kh/, /m/, /y/, /t/, /ħ/ and /ğ/ in initial position ; <i>šboor</i> (pl. little fish), <i>škhoonə</i> (fever), <i>škham</i> (soot), <i>šmat</i> (eating-carpet) , <i>šmakh</i> (big head, brain), <i>šyakh</i> (skewers), <i>štoolə</i> (buckets), <i>šhoon</i> (dishes), and <i>šğar</i> (pl. little; small),(Abdul-Sada, 2011 as cited Erwin,2004:77).	is followed by /m/, /n/, /f/, /t /, /ā /, /b/, /l/ and /r/; as in <i>māsmootə</i> (dried little fish as a food), <i>āšnam</i> (pagans, statues), <i>āšfār</i> (yellow), <i>bāstiyə</i> (small roofless kiosk-like trading table) , <i>istə</i> (master, foreman), <i>yisāəd</i> (to go up), <i>išbiā</i> (finger), <i>āšlee</i> (original), <i>yisbur</i> (to be patient) and <i>māsrəf</i> (bank), (Al-Khalesi,2001:119).
/z/	followed by /n/ ,/b/ ,/l/ ,/w/, /y/, /ğ/ and /r/ in initial position; <i>znad</i> (trigger ;personal	followed by /r/ as in <i>əzrəg</i> (blue), (Woodhead and Beene, 1967:18)

	name), <i>zbalə</i> (trash) , <i>zlimə</i> (man) , <i>zlabyə</i> (pancakes) , <i>zwēn</i> (diminutively good) , <i>zyan</i> (haircut), <i>zğeiroom</i> (little ; small), <i>zwaâ</i> (vomiting) , <i>zroof</i> (holes), <i>zrišk</i> (currant { in Baghdad dialect}), (Van Ess, 1961:74).	
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ii. /θ/, /ð/ and /ð̣/

These phonemes are fricative in articulation, and interdental (i.e. are produced by placing the tip of the tongue between the upper and lower front teeth) in place of articulation. /ð/ and /ð̣/ are voiced, whereas /θ/ is voiceless. Like /ṣ/, /ð̣/ is a velarized phoneme.

Table 2: Phonemes /θ/, /ð/ and /ð̣/

Phonemes	Initial Position	Medial Position
/θ/	Is followed by /m/, /n/, /l/,/g/ , /kh/ and /w/ as in the following examples: <i>θmanyə</i> (eight), <i>θnēn</i> (two), <i>θlēθiyə</i> (three-quarter of brick), <i>θmuntāāš</i> (eighteen), <i>θgał</i> (pl.heavy), <i>θkhan</i> (pl.thick) , <i>θwēnee</i> (personal name) , (Woodhead and Beene,1967:88).	followed by /l/, /q/ and /r/ as in <i>məθloom</i> (cleft), <i>miθqal</i> (weight(of gold) and <i>yiθrim</i> (to mince), (Van Ess, 1961:110).
/ð/	Preceded by /y/ ; <i>ðyabə</i> (wolves), <i>ðyool</i> (tails), (Clarity et al.,2003:107).	followed by /b/ and /k/ as in <i>yiðbəħ</i> (to slaughter), <i>yiðbəl</i> (to wither), and <i>yiðkir</i> (to remember), (Rahim and Farjo,1985:280).

/ḍ/	/l/,/b/,/kh/ precedes /ḍ/ , as in <i>ḍlooā</i> (ribs), <i>ḍbaā</i> (hyenas), <i>ḍkhan</i> (pl. thick),(Al-Khalesi,2001:44).	followed by /l/ as in <i>meḍloom</i> (oppressed), (ibid.).
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iii. /â/ and /ħ/

/â/ and /ħ/ are pharyngeal fricatives; the first is voiced and the second is voiceless.

Table 3: Phonemes /â/ and /ħ/

Phonemes	Initial Position	Medial Position
/â/	/â/ is followed by /n/, /z/,/ l/,/y/, /r/,/ḍ/, and/d/. For example , <i>ânad</i> (persistence; personal name), <i>âzaz</i> (pl.dear), <i>âlooč</i> (chewing gums), <i>âyoon</i> (eyes), <i>âyar</i> (measure;weight), <i>âraḍ</i> (pl.wide), <i>âdam</i> (bones), <i>âdam</i> (death punishment), <i>âroog</i> (wood grain; fried meat) and <i>âgał</i> (headband), (Abdul-Sada, 2011 as cited Hassan ,1981:44).	followed by /d/,/j/, /z/,/q/, /š/,/r/, /w/ and /g/ , as in <i>mââdan</i> (mineral), <i>mââjoon</i> (paste), <i>yiâzil</i> (to depose ;to remove) , <i>yiâqid</i> (to tie; to knot), <i>yiâšir</i> (to squeeze), <i>yiâruf</i> (to know), <i>yiâwee</i> (to bark {dog}), <i>yiâgid</i> (to knit), <i>yiâjin</i> (to paste; to kneed),(Jastrow, 1978:85).
/ħ/	/ħ/ is followed by /š/ ,/s/, /l/, /ḍ/,/č/, /z/,/r/ and /θ/, eg: <i>ħśan</i> (horse), <i>ħsan</i> (generosity ; personal name), <i>ħsēn</i> (personal name), <i>ħloog</i> (mouths) , <i>ħḍēree</i> (sort of waterbird), <i>ħčayə</i> (word; talk) , <i>ħzam</i> (belt), <i>ħroorə</i> (heat) and <i>ħθalə</i> (food leftovers: no-body),(Abdul-Sada, 2011 as cited Van Ess, 1961: 44).	followed by /l/ ,/b/,/f/,/s/,/š/,/r/,/m/,/č/ and /ḍ/ as in <i>yiħlib</i> (to milk), <i>yiħbis</i> (to imprison), <i>yiħfur</i> (to dig), <i>yiħsib</i> (to count) , <i>yiħsid</i> (to envy), <i>yiħrig</i> (to burn), <i>yiħčee</i> (to talk), <i>yiħmee</i> (to protect) , <i>əħmər</i> (red), <i>yiħḍər</i> (to be present;to attend),(Woodhead and Beene, 1967:60).

iv. /ǰ/ and /kh/

The phonemes /ǰ/ and /kh/ are velar fricatives i.e. pronounced with the back of the tongue against the soft palate (or “velum”) (Wikipedia 2019:10). /ǰ/ is voiced and /kh/ is voiceless.

Table 4: Phonemes /ǰ/ and /kh/

Phonemes	Initial Position	Medial Position
/ǰ/	/ǰ/ is followed by /t/ and /l/ as in <i>ǰrab</i> (crow), and <i>ǰlaf</i> (cover), (Al-Khalesi, 2001:32).	followed by /n/ as in <i>miǰnatees</i> (magnate),(Van Ess,1961:37).
/kh/	/kh/ is followed by /y/,/d/,/w/,/m/ and /t/ , as in <i>khyar</i> (cucumber) , <i>khlood</i> (cheeks), <i>khwan</i> (brothers), <i>kmustââš</i> (fifteen), <i>khtiyar</i> (choice; selection) and <i>khyat</i> (sewing) (Clarity et. al.2003:186).	/kh/ is preceded by /ð/, /s/,/j/,/b/,/t/,/l/, as in <i>akhðar</i> (green) , <i>yikhsar</i> (to lose), <i>yikhjæl</i> (to be shy) , <i>yikhbus</i> (to make chaos), <i>yikhbuž</i> (to bake), <i>yikhimir</i> (to be leavened) and <i>yikhliṭ</i> (to mix),(Erwin, 2004: 107).

v. /b/, /t/, /d/, /t̪/ and /q/

The phonemes /b/, /t/, /d/, /t̪/ and /q/ are called plosives. Plosives or stop-consonants are consonants in which the vocal tract is blocked so that all airflow ceases. /t/ and /d/ are alveolar sounds. This implies that they are pronounced with the tip of the tongue.

/b/ is bilabial. Bilabial consonants are a type of sound in the group of labial consonants that are made with both lips (bilabial) and by partially stopping the air coming from the mouth when the sound is pronounced (consonant) (Wikipedia 2019:10)

/q/ is articulated with the back of the tongue against or near the uvula that is further back in the mouth than velar consonants. (Wikipedia 2019:10)

Lastly, /t/ interdental (in ii above)

Table 5: /t/

Phonemes	Initial Position	Medial Position
/b/	followed by /t /,/z/ ,/t/, /l/,/š/, /h/,/r/ and /ś/ , as in <i>btoon</i> (stomachs; abdomens), <i>bzeem</i> (buckle), <i>bladee</i> (native ; original), <i>bšarə</i> (good news), <i>btisamə</i> (smile), <i>bhar</i> (spice), <i>breesam</i> (silk) , <i>ibu brēs</i> (wall gecko) and <i>bśat</i> (rug) , (Abu-Haidar,1991:75).	/b/ is followed by /l/,/y/,/r/,/n/,/t/and /s/. Thus, <i>yiblāa</i> (to swallow), <i>abyəd</i> (white), <i>məbroosh</i> (mashed), <i>yibnee</i> (to build), <i>mubred</i> (fine), <i>yibtir</i> (to dislocate), <i>bibsee</i> (pepsi) and <i>bsirāa</i> (quickly),(Al-Khalesi, 2001:57).
/t/	Preceded by /r/,/l/ and /f/,as in <i>trab</i> (dust ; sand), <i>tlaθə</i> (three), <i>trak</i> (sportive shirt), <i>tlool</i> (hills), <i>tləttāāš</i> (thirteen), <i>tfal</i> (spitting), (Al-Khalesi,2004:28).	/t/is followed by /r/ as in <i>yitrik</i> (to leave; to let), (Mansour, 1991:26).
/d/	Preceded /r/, /m/, /h/ and /n/. For example, <i>drēčil</i> (tractor), <i>dmooa</i> (tears), <i>dhok</i> (place name), <i>dnan</i> (dirty stains), <i>dnaneer</i> (Dinars), (Clarity et al., 2003:46).	Followed by /r/,/f/ and /w/,as in <i>yidris</i> (to study), <i>yidree</i> (to know), <i>yidfāa</i> (to push; to pay), <i>yidwee</i> (to be ignited) , <i>yidfur</i> (to hit), <i>mādrasə</i> (school), (Aziz,1974:166-167).
/t /	/w/ ,/r/,/n/ and /b/ comes after /t / . Like in, <i>twareej</i> (place name), <i>trag</i> (slap), <i>twał</i> (pl.tall;high), <i>tnāāš</i> (twelve), <i>tbarə</i> (axes), <i>tnoon</i>	/t/ is followed by /r/,/l/,/b/ ,/w/ ,/f/ and /m/, as in <i>yitrid</i> (to fire,dismiss), <i>yitlib</i> (to seek), <i>yitbakh</i> (to cook), <i>yitwee</i> (to roll),

	(tons),(Erwin, 2004b:28).	<i>yitlâ</i> (to go out) , <i>yitfir</i> (to jump), <i>yitmās</i> (to stick),(Rahim and Farjo,1985:270).
/q/	Followed by /m/, /l/, /r/ and /s/. Hence, <i>qmaš</i> (fabric), <i>qlamā</i> (pens; pencils), <i>qrood</i> (monkeys), <i>qsoor</i> (palaces), (Mansour, 1991:68).	followed by /f/,/s/,/r/,/l/,/n/,/b/ and /č/ as in <i>yiqful</i> (to lock), <i>yiqsuf</i> (to strike(in battle), <i>taqreer</i> (report), <i>taqleem</i> (cutting; clipping), <i>yiqnus</i> (to target), <i>yiqbād</i> (to receive), <i>yiqbāl</i> (to accept) and <i>əqčəm</i> (a small lorry)(Clarity et al., 2003:84).

vi. /k/ and /g/

These phonemes /k/ and /g/ are velar plosives; /k/ is voiceless and /g/ is voiced.

Table 6: Phonemes /k/ and /g/

Phonemes	Initial Position	Medial Position
/k/	followed by /r/,/š/,/w/,/b/,/l/,/r/ and /m/,as in <i>krāfus</i> (celery), <i>kšaš</i> (hay), <i>kwēt</i> (kuwait), <i>kbar</i> (pl. big ; large), <i>klēčə</i> (cookie), <i>klētə</i> (headwear), <i>kramiyə</i> (tip;bonus), <i>kraâ</i> (feet/ legs of cow or sheep as food), <i>kmēt</i> (place name) , (Al-Khalesi, 2004 : 97)	/k/ is comes before by /s/,/r/ and /w/ ; thus, <i>miksarə</i> (can opener), <i>šukrən</i> (thank you), and <i>yikwee</i> (to iron) (Hassan ,1981:30).
/g/	/g/ is followed by /m/,/r/,/l/,/r/ and /d/, as in <i>gmat</i> (swaddle), <i>grab</i> (sheath), <i>gladə</i>	Followed by /â/,/d/ and /r/.Thus <i>yigâid</i> (to sit), <i>yigdər</i> (to be

	(necklace), <i>groom</i> (horns), <i>głob</i> (lamp) , <i>gwamə</i> (tribal retribution) , <i>gdoor =jdoor</i> (cooking pots) (Woodhead and Beene, 1967:64).	able), <i>yigtim</i> (to clip), <i>âagroog</i> (frog), <i>nigrə</i> (hole),(Jastrow, 1978:33).
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vii. /f/, /š/ and /h/

The Phonemes /f/, /š/ and /h/ are v- fricatives; /f/ is a voiceless labio-dental, this implies that it is articulated with the lower lip and upper teeth. /š/ is palato-alveolar and /h/ is glottal (uses glottis as primary articulation).

Table 6: Phonemes /f/, /š/ and /h/

Phonemes	Initial Position	Medial Position
/f/	/f/ is followed by /l/,/r/, /s/,/y/ and /t / , as in <i>floos</i> (money) , <i>fšooś</i> (little pieces), <i>flan</i> (somebody; someone), <i>fleet</i> (insecticidal sprayer) , <i>frag</i> (missing) , <i>fraš</i> (bed), <i>frookh</i> (male offspring(human and non-human) , <i>fšēfis</i> (turkey) , <i>ftir</i> (mushroom), <i>fyooee</i> (pl. shades) and <i>fyale</i> (elephants), (Van Ess,1961:74).	Followed by /y/, /l/ and /r/. Henceforth, <i>bofyə</i> (buffet), <i>həflə</i> (party) , <i>mufrəd</i> (retail sale), (Rahim and Farjo , 1985:267).
/š/	followed by /â/,/m/,/ w/,/r/,/k/,/kh/,/l/ and /n/, as in <i>šâeer</i> (barley) , <i>šmooâ</i> (candles), <i>šwei-yə</i> (little), <i>šraâ</i> (sail), <i>škool</i> (different people) , <i>škheer</i> (snort), <i>šwakit</i> (when), <i>šlon</i> (how), <i>šnaw</i> (ups-and-downs), (Al-Khalesi,2001:81).	Followed by /l/,/w/,/r/ ,/b/,/kh/ ,/k/,/h/, /h/, /t/ and /t/. Hence , <i>nəšlə</i> (flu), <i>sišwar</i> (hair-dryer), <i>âišreen</i> (twenty), <i>yišbââ</i> (to be sufficient (of food), <i>yiškir</i> (to thank), <i>yišhəd</i> (to witness; to

		testify), <i>yišhæt</i> (to while eating), <i>yištibih</i> (to suspect), <i>yišrəb</i> (to drink), <i>yišwee</i> (to grill), and <i>yištib</i> (to delete),(Abu-Haidar , 1991:55).
/h/	followed by /n/,/w/,/d/ and /l/, as in <i>hna</i> (there), <i>hwayə</i> (more), <i>hna</i> (here), <i>hdəâš</i> (eleven), <i>hdoom</i> (clothes), and <i>hlal</i> (crescent ; personal name) ,(Erwin,2004:69).	/h/ is followed by /w/,/ð/,/d/,/t/ and /č/.Hence, <i>gəhwə</i> (coffee;coffee shop) <i>yihðee</i> (to hallucinate), <i>yihdim</i> (to destroy), <i>yihəm</i> (to care),and <i>yihčee</i> (to speak), (Hassan, 2002:82).

viii. /j/ and /č/

/j/ and /č/ are post-alveolar affricates; the first is voiced and the second is voiceless.

Table 7: Phonemes /j/ and /č/

Phonemes	Initial Position	Medial Position
/j/	/j/ is followed by /l/,/ w/,/n/,/y/, /n/ and /r/ , as in <i>jilad</i> (book cover) , <i>jwareeb</i> (socks) , <i>jwareen</i> (neighbours) , <i>jnood</i> (troops), <i>jyoob</i> (pockets), <i>jdoor</i> (cooking pots), <i>jnazə</i> (funeral), <i>jrood</i> (worn clothes), <i>jrooh</i> (wounds), (Woodhead and Beene,1967:86).	Followed by /r/, /m/ and /b/,thus <i>yijrəh</i> (to wound), <i>yijməd</i> (to be frozen), <i>yijbur</i> (to reconcile: to plaster: to oblige), (Jastrow , 1978:82).

/č/	Preceded by /m/,/l/,/f/ and /y/,as in <i>čmağ</i> (yashmak (headcover), <i>člab</i> (dogs), <i>foof</i> (gloves), <i>čwalat</i> (personal belongings), <i>čyoos</i> (bags), <i>čmalə</i> (in addition; moreover) , (Clarity et al. ,2003:43).	/č/ is followed by /f/ and /w/, hence, <i>yičfee</i> (to spill (a liquid or food), and <i>yičwee</i> (to cauterize), (Al-Khalesi, 2004:55).
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ix. /m/ and /n/

Both /m/ and /n/ are voiceless nasals; /m/ is bilabial, while /n/ is alveolar.

Table 8: Phonemes /m/ and /n/

Phonemes	Initial Position	Medial Position
/m/	/r/,/g/,/kh/,/â/,/š/,/k/,/l/,/b/,/n/,/t/,/č/ and /ğ/ precedes /m/ ,as in <i>mrad</i> (wish,desire), <i>mgəd-dee= mjəd-dee</i> (beggar), <i>mkhad</i> (pillows) , <i>mâanid</i> (persistent), <i>mšētir</i> (well-positioned) <i>mkəs-sib</i> (crusty), <i>mlooħə</i> (salinity), <i>mrayə</i> (mirror), <i>mbarək</i> (congratulation), <i>mnawəščee</i> (builder's helper) , <i>mtiħan</i> (exam), <i>mtiyaz</i> (previlige), <i>mčaree</i> (muleteer; donkey-driver), <i>mbel-lel</i> (wet), and <i>mğərbəł</i> (mixed), (Aziz,1974:167).	/m/ is followed by /l/, /s/ and /š/. for example includes, <i>əmləħ</i> (gray), <i>yimsəħ</i> (to wipe) , <i>təmleek</i> (possession), <i>yimšee</i> (to walk) ,(Mansour, 1991:52).
/n/	followed by /s/, /kh/,/d/,/š/,/z/ and /j/, as in <i>nsabə</i> (relatives), <i>nkhəłə</i> (bran), <i>ndərdiš</i> (we chat), <i>nšəł-lə</i> (God willing) , <i>nzool</i> (damn), <i>njawub</i> (we answer)	/n/ is followed by /t/,/b/,/z/,/j/ and /š/. Hence, <i>yintee</i> (to give) , <i>yinbiš</i> (to exhume) , <i>yintəħ</i> (to hit(by head), <i>yinzil</i> (to go down), <i>yinsəħ</i>

	(Woodhead and Beene, 1967:103).	(to advise), <i>sinjab</i> (squirrel),(Woodhead and Beene, 1967:97).
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x. /r/ and /w/

The phonemes /r/ and /w/ are approximants. Approximants are speech sounds that involve the articulators approaching each other but not narrowly enough nor with enough articulatory precision^[21] to create turbulent airflow. Therefore, approximants fall between fricatives, which do produce a turbulent airstream, and vowels, which produce no turbulence. (Wikipedia 2019:10).

/r/ is voiced post-alveolar and /w/ is voiceless bilabial.

Table 9: Phonemes /r/ /w/

Phonemes	Initial Position	Medial Position
/r/	/r/ is followed by /g/,/b/,/f/,/m/, /k/ and /y/, as in <i>rgab</i> (necks), <i>rbat</i> (necktie), <i>rfoof</i> (shelves), <i>rmooš</i> (eyelashes), <i>rkab</i> (stirrup), <i>ryajeel</i> (men),(Hassan ,1981:72).	/r/ is followed by /m/,/g/,/s/,/j/,/f/,/s/,/b/,/k/,/h/ and /ǧ/. for example, <i>tirmiz</i> (thermos: air-tight container) , <i>hirmis</i> (little bugs), <i>sirgee</i> (door hinge) , <i>khirde</i> (money change), <i>kursee</i> (chair) , <i>yirjâ</i> (to return), <i>yirmee</i> (to shoot), <i>yirfâ</i> (to lift), <i>yirsim</i> (to draw {a picture}), <i>yirbâh</i> (to win;to gain), <i>yirkab</i> (to ride), <i>mârhâm</i> (ointment) and <i>burǧuġ</i> (bulgur),Mansour,1991:130)

/w/	Followed by /ħ/, /d/, /l/, /š/ , as in <i>wheidə</i> (woman), <i>wdaâtək</i> (by your life {swearing}), <i>wlēd</i> (little boy), <i>wšeeâə</i> (skein; of string) and <i>wšalə</i> (trivial amount of juice or water)(Abu-Haidar, 1991:62).	
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/w/ has no medial position.

xi. /l/

Table 10: Phonemes /l/ is voiceless alveolar lateral. It has two realizations; light /l/ and dark /l/.

Phoneme	Initial Position	Medial Position
/l/	/l/ is followed /s/ and /ħ/, as in <i>lsan</i> (tongue) and <i>lhaf</i> (blanket), (Al-Khalesi, 2004:64).	followed by /w/, /z/, /â/, /b/, /g/, /č/, /d/, /s/, /m/, /w/ and /h/. Thus, <i>yilwee</i> (to twist), <i>yilzəm</i> (to hold), <i>yilâəb</i> (to play), <i>yilbəs</i> (to wear), <i>yilguf</i> (to catch), <i>yilčim</i> (to scratch), <i>yildəğ</i> (to bite), <i>yilsâə</i> (to bite), <i>yilmâə</i> (to shine) , <i>əlwan</i> (colours), <i>yilhəθ</i> (to pant), <i>yilgə</i> (to find), <i>məlčoom</i> (cauterized), (Erwin, 2004:55).

4. Other Areas Of Cc's Formation in Baghdadi Arabic

4.1 Diminutives

The diminutive is a form used to refer to a smaller or diminishing form of certain nouns and adjectives. More specifically, diminutive is a word that has been modified to convey a slighter degree of its root meaning, to convey the smallness of the object or quality named. Diminutives

are another area in which CC's are formed. Some words in SA are made diminutive in BA and these results in initial CC's, as for instance:

Table 11: words in SA are made diminutive in BA

BA	SA
<i>Msēčeen</i>	<i>Miskeen (poor)</i>
<i>bnei-yə</i>	bint (girl)
<i>Skootee</i>	<i>sakit (silent)</i>
<i>Hšēnee</i>	<i>hšan (fox)</i>
<i>mrei-yə</i>	<i>imrəʔə (woman)</i>

(Al-Khalesi, 2001:78)

4.2 Ellipsis

Occasionally CC's are formed due to the removal of a sound in a word. The sounds removed are either the initial or the medial ones and therefore an initial CC is likely to occur. The first type is the removal of initial sound, short vowel /i/. Such removal is motivated by swift speech in words with lexically medial CC's, which thus results in initial CC's. Some examples for the occurrence includes: *braheem*, *smaâeel*, *štinaâee* (artificial; industrial), *sbooâ*(week), *htizaz* (vibration), *stiqbal* (reception: living room), *zdiham*(crowd), *stiâlamat*(information office), *stinsakh* (copying), *stiâdad* (readiness), *rtibat* (link) , *rtifaâ* (height), *nkisar* (regression), *ntihaʔ* (finish; expiration) , *ltiwaʔ* (twisting), *nhibas* (locking; retention), *ndilaâ* (outbreak), *ntišar* (spread). (Al-Khalesi, 2001:67).

The second type is the removal of the medial vowel in words from SA. The medial sound is often the vowel /u/. Consequently, words like *tured* (you/ she want), *tusafir* (you/she travels) and *tuqabil* (you/ she meets) in SA become *treed*, *tsafir* and *tqabil* in SIA (Woodhead and Beene, 1967:34).

4.3 First Names

Many first names in BA begin with initial CC's. Such CC is created due to the elision of the medial vowels in these names, that is known as *syncope*, as in *ânad*, *gzar*, *jwad*, *swadee*, *âlêwee*, *sbahee*, *šhab*, *znad*, *mzaħim*, *sâood*, *trad*, *ħsan* and *ħsēn* (Al-Khalesi, 2004:112-113).

4.4 Borrowings

Some words that are borrowed from other languages bear CC's. These words generally keep hold of the same pronunciation when they are used in BA. Most borrowings from English language include initial CC's and they carry one of these phonemes as the pre-initial consonant ; /b/,/p/,/f/,/s/,/t/, /k/,/g/, and /š/, whereas the initial consonant is often /r/,/l/,/b/, /t/ or /l/./b/ as in *bloz* (blouse), *blok* (block), *blayis* (pliers), *bronz*(bronze) and *brēk* (brake) (Woodhead and Beene, 1967:26). /p/ as in *prēmiz* (primus stove), (Al-Khalesi, 2004:43). /s/ as in *srinjə* (syringe), *sbortee* (sportive; lively), *stad* (stadium), *sbanə* (spanner) and *stəndər* (standard), (Clarity et al, 2003: 45). /k/ as in *krēn* (crane), *kreem* (cream), *klinis* (kleenex), *klibis* (staples;clips), *klēčə* (stuffed cake)(4) and *kláč* (clutch),(Erwin,2004: 66). /t/ as in *trēlə* (trailer), *triktər* (tractor), and *tray*(trial; attempt),(Van Ess, 1961:46). /g/ as in *głás* (glass) and *grees*(grease).(ibid.). /f/ as in *frēzər* (freezer), *flawənzə* (flu), *flaween* (flying wheel), and *flənjə* (flange), (Abu-Haidar,1991:85). /š/ as in *štaygər* (sticking tiles) (Mohammed et al 2011 as cited: Woodhead and Beene, 1967:75).

4.5 Plurals

Most words in BA are characterized by an initial CC when these words are in plural. No such CC is produced when these words are used singular. Many plurals in BA have shown to have an initial CC's. The sound sequence of these words ranges from CCVC and CCVCV to CCVCVC, hence *rdan* (sleeves), *blam* (boats), *đyabə* (wolves), *głob* (hearts), *âyal* (family members), *gboor* (tombs), *črookh* (wheels), *ğyoom* (clouds), *gšoor* (fruit skin), *tyoor* (birds), *qfalə* (locks), *šwarib* (moustaches), *sneen*(years), *jbal* (mountains), *jfoon* (eyelids), *zrar* (buttons), *mšat* (combs), *âoog* (branches), *zloof* (sideburns), *syoof* (swords), *mtoon* (shoulders), *dmooā* (tears), *krakə* (shovels), *mšatə* (combs), *btoon* (stomachs; abdomens), *khšoom* (noses), *bšooš* (geese), *dboobə* (bears), *khwan* (brothers), *ryajeel* (men), *blamə* (boats), *snoon* (teeth), *šhoor* (months), *qsoor* (palaces), *btalə* (bottles), *kwabə* (cups) (Mohammed et al 2011 as cited: Woodhead and Beene,1967:88-89)

5. Findings

1. The study finds that the articulation of most words, with CC's initial or medial, proceed through three main structures, according to which an initial or medial CC's are known or not, when these words are pronounced in both SA and BA.
2. Because three-consonant cluster is not present in BA, Iraqi English Foreign Language (EFL) learners split up this cluster in English words starting with three consonants. The said learners insert a vowel (epenthesis) separating the first consonant from the other two ones. Therefore, words like *fleet*, *spring* and *prudent* are pronounced as *fileet*, *sipring* and *pirudent*.
3. In addition, some EFL learners come upon difficulty in producing CC's correctly as they slot in an initial vowel (prothesis) at the beginning of words with two consonants in the pronunciation of these words, hence, words such as *tie*, *special* and *chat* are pronounced as *itie*, *ispecial* and *ichat*.
4. BA speakers split up final and medial CC's when articulating words from SA by inserting a vowel (epenthesis) usually a short one at the end of these words ; *ism* → *isim* (name); *qabl* → *qabil* (before); *šâb* → *šâub* (difficult).

In summary, the study indicates that Iraqi BA EFL learners in general face a difficulty in producing CC's in the pronunciation of English words, especially those words which begin with initial CC's and this issue must be taken cognizance of when teaching Iraqi EFL learners.

6. Conclusion

1. CC's occur only in initial and medial position(s) of the word.
2. CC's in BA consists of two consonant sounds. There are no three consonant clusters at the lexical form of the single word. Three consonant cluster is sometimes formed through the grammatical performance of the word, as with words with lexically initial CC when the definite article *il* (the) is prefixed to these words, hence *ħzam*(belt)→ *ilħzam* (the belt), and *qlam* (pencils) → *ilqlam* (the pencils).

3. In borrowings, BA speakers either keep the same native pronunciation or they introduce an epenthetic vowel; *stikan* = *istikan* /stika:n/ (teacup), *stērin* = *stērin* /stI:riŋ/ (steering).
4. Initial and medial CC's does not exist in SA. In SA, there is final CC's only, predominantly in monosyllabic words. E.g. *jism* (body), *qəlb* (heart), and *ḥərf* (letter).
7. Words in BA frequently consist of single CC and a concurrent (initial and medial) CC is a rarity. Initial and medial CC are found in words like *skəmlee* (chair), *zrišk* (currant), *zlabyə* (pancakes), *brēāsee* (wall gecko) and *msəlfən* (covered). Such words are CCVCC, CCVCCV or CCVCCVC as far as sound sequence is concerned.

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