In chapter 3 we saw how single consonants are made, and sometimes how a sequence of two consonants should be said (e.g. /pr, kr, tr/p. 62), how a sequence of two consonants where two or three or four or even but there are many other cases where two other. Some examples are: more consonants follow one after the other. Some examples are: ski:m scheme, kri:m cream, skri:m scream, neks necks, nekst next, ski:m scheme, kri:m cream, skri:m scream) have many consonants.

sequences, and speakers of these languages will not have any difficulty sequences, and speakers of the English ones. But other languages do not in pronouncing most of the English ones. But other languages do not have sequences of consonants at all, or only very few and very short ones (e.g. Mandarin, Cantonese, Vietnamese, Swahili, Yoruba, Tamil), and speakers of these languages (in which two consonants are usually separated by a vowel) may have difficulty in stringing together two, three or four consonants with no vowel between them. This chapter is to help you, if you have this kind of difficulty.

4.1 Initial sequences

At the beginning of English words there may be either two or three consonants in sequence.

Sequences of two consonants initially

These are of two main kinds:

1 /s/followed by one of /p, t, k, f, m, n, l, w, j/, e.g. in spy, stay, sky, sphere, small, snow, sleep, swear, suit.

2 One of /p, t, k, b, d, g, f, A, J, v, m, n, h/ followed by one of /l, r, w, j|. Not all of these sequences are found (e.g. /pw, dl/ do not occur). The full list is:

/p/ followed by /l, r, j/ play, pray, pure
/t/ /r, w, j/ try, twice, tune
/k/ /l, r, w, j/ climb, cry, quite, cure

Initial sequences /l, r, j/ blow, bread, beauty |b| |d| |g| |f| |b| |s| dress, dwell (rare), duty /r, w, j/ /I, r/ glass, green /I, r, j/ fly, from, few throw, thwart (rare) /r, w/ 10/ shrick view 14/ /1/ music /m/ /1/ new /n/ huge /h/

Start with /sp/: say a long /s/, then gradually close the lips for /p/ until they stop the /s-/sound. Keep the /s/ going right up to the moment after the lips are closed, and you will not put a vowel between the two consonants. Be careful to start with a long /s/ and do not put a vowel before it. Do this many times until you are sure that there is no vowel sound either before the /s/ or after it. Now add the vowel in words such as:

spar spy spa: spur spie spear spee spare
Do not say espar or separ. Start with /s/ and halt it by closing the lips.

/st/ and /sk/ are begun by making a long /s/ and halting it by raising the tongue-tip (for /st/) or tongue-back (for /sk/) to cut off the friction. Try:

ster stay star store stra steer skar skv skar scar skor skor skea scare

Do not say əster or səter, etc.

In /sf/ (which is rare) the long /s/ is ended by the lower lip moving up to the upper teeth for /f/:

sfiə sphere sferikəl spherical

In /sm/, the /s/ is continued until the lips meet for /m/, and in /sn, sl/, until the tongue-tip touches the alveolar ridge. (Those of you who have trouble with /l/ and /r/ must be careful not to pronounce sri:p for sli:p sleep (see p. 61).)

smail smile smoke smel smell smear snæk snæk snæk snæk slæk slæk slæk slæk slæk slæk slæk

In /sw/ the lips become rounded during the /s/ (be careful not to In /sw/ the lips become 15 the /i:/, which is the beginning of the /i/pronounce /sv/) and in /sj/ the /i:/, which is the beginning of the /i/pronounce /sv/) and in /sj/ the /s/, so that in both cases the glide in pronounce /sv/) and in /s/, so that in both cases the glide starts as glide, is reached during the /s/, so that in both cases the glide starts as soon as /s/ ends. Try: swu:p swoop swon swan

swei sway pəsju: pursue əsju:m assume switt sweet sju: suc sju:t suit

In the second group of sequences, the second consonant is most often In the second group of the first one is being pronounced. For example, in /pr/ formed whilst the life or /pl/ the tongue is placed in the exact position for /r/ or /l/ whilst the or /pi/ the tong de by he /p/, so that as soon as they are open the /r/ or lips are still closed for the /p/, so that as soon as they are open the /r/ or /// is heard. In the following examples start with a long first consonant, and during it place the tongue (and for /w/ the lips) in position for the second consonant; then, and only then, release the first consonant: trai

pjua pure try prei pray ples play climb krai CIY klaim tjuin tune twais twice blow bred bread blau kjua cure kwart quite dwell dju:tr duty dwel dres dress bju:ti beauty fly from from flai gri:n green gla:s glass mju:zik music nju: new vju: view few fju:

In /θr/ and /ʃr/ the second consonant cannot be prepared during the first. Be sure first of all that you can pronounce each one separately; say one, then the other, several times. Then smoothly and continuously make the tongue glide from one to the other so that there is no sudden change between them; try the following, very slowly at first, then gradually quicker:

Oru: threw Ored thread Ori: three Orau throw fru:d shrewd [ril shrill fred shred [ri:k shriek

Sequences of three consonants initially

These are /spr, str, skr, spj, stj, skj, spl, skw/ and are a combination of the /sp/ type of sequence and the /pr/ type. The /s/ at the beginning is cut off by the following stop, and during the stop the following consonant is fully prepared. Try the following examples very slowly at first; cut off the /s/ by the tongue or lips and, whilst holding this stop, get the third consonant ready, then release the stop straight into the third consonant:

0.00

spread spred straight streit screw skru: spiuarras spurious

stju:pid stupid skiua skewer splendid splendid skwea square

The sequence /spj/ is rare.

Final sequences

Sequences of consonants at the ends of words are more varied than at the beginning mainly because /s/ or /z/ have to be added to most nouns to give their plural forms, as in kæts cats, dogz dogs, fækts facts, fi:ldz fields, etc., and /t/ or /d/ have to be added to most verbs to form their past tense, as in wist wished, reizd raised, riskt risked, plandad plunged, etc. Also /0/ is used to form nouns like strength and bred breadth and numerals like fifth (and all these can have plurals strenθs, bredθs, fifθs!).

Stop+stop

When one stop consonant is immediately followed by another, as in kept kept and ækt act, the closure of the speech organs for the second consonant is made whilst the closure for the first consonant is still in position. In the sequence /pt/ this is what happens: the lips are closed

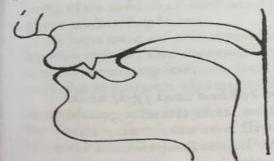


Fig. 25 Double closure in |pt/

for /p/ and air is compressed as usual by pressure from the lungs; then, with the lips still closed, the tongue-tip is placed on the alveolar ridge ready for /t/, so that there are two closures, see Figure 25. Then, and only then, the lips are opened, but there is no explosion of air because the tongue closure prevents the compressed air from bursting out of

the mouth; finally, the tongue-tip leaves the alveolar ridge and air the mouth; finally, the tongue are explosion for the two explodes out of the mouth. So there is only one explosion for the two stops; the first stop is incomplete.

ops; the first stop is filed. First the sequence /kt/. First the Figure 26 shows a similar position for the sequence /kt/. First the back of the tongue makes the closure for /k/, then the tip of the tongue back of the tongue is lowered back of the tongue makes the closure for /t/, then the back of the tongue is lowered withmakes the closure for /-/, and finally the tongue-tip is lowered and air out causing an explosion, and finally the tongue-tip is lowered and air

Start with kept. First say kep and hold the air back with the lips, don't open them. Now put the tongue-tip in position for /t/ (lips still explodes out. don t open the lips and be sure that no air comes out, and then closed). Now open the lips and be sure that no air comes out, and then lower the tongue-tip and allow the air out. Do this several times and be sure that the lips are firmly closed (we do not say ket) and that the tongue-tip is ready to hold back the breath before you open the lips. Then do the same with ækt, and be sure that although /k/ is properly formed, its ending is, as it were swallowed, so that there is no explosion until the /t/ is released.

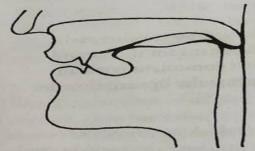


Fig. 26 Double closure in /kt/

Now do exactly the same for /bd/ as in rabd robbed and /gd/ as in drægd dragged. Again there is only one explosion, this time a gentle one for the /d/. If you do make two explosions it will not cause any misunderstanding, but it will sound un-English. What is important is to be sure that the first consonant is properly formed before you take up the position for the second. If you say rod instead of robd or dræd instead of drægd, you will be misunderstood.

This 'missing explosion' happens whenever one stop consonant (except /ts/ and /d3/) is followed immediately by another (including /ts/ and /d3/), not only at the end of words but also in the middle of words, as in ækta actor, or between words, as in red kaut red coat. Here are some examples for practice:

slept rAbd top dog raip təma:təu greit keə kwait gud blækba:d klAb tai bob gudwin bæd kəuld aid gəu pigteil lekt sə big d3əuk	slept rubbed top dog ripe tomato great care quite good blackbird club tie Bob Goodwin bad cold I'd go pigtail lecture big joke	dragd	red purse goodbye bagpipes big boy object (n.)
---	--	-------	--

When /p/ is followed by /p/, or /t/ by /t/, and so on, there is again only one explosion, but the closure is held for double the usual time. Examples:

slip pa:st luk keəfəli	look carefully	bob bests	what time? Bob Bates
mæd dog	mad dog	big ga:l	big giri

For /ts/ and /d3/ the friction part of the sound is never missing, so in wits tse which chair? and laid3 d3Ag large jug the /ts/ and /d3/ are complete in both places.

When one of the strong/weak pair /p, b/ or /t, d/ or /k, g/ is followed by the other, for example in wpt der what day or big kerk big cake, the is only one explosion, but the closure is held for double the usual time and the strength changes during this time. Other examples are:

hip boun hip bone bed taim bed-time blæk gout black goat

If three stop consonants come together, as in strikt pearant strict parent, there is still only one explosion, that of the third consonant. What usually happens is that the first consonant is formed and held for longer than usual, the second consonant disappears altogether, and the third is formed and exploded normally. We might write strict parent as strik: pearant, where /k:/ represents an unexploded /k/ held for longer than usual. Other examples are:

hi: lægd bihaind	
kələkt peniz	they robbed cars

/pt/ and /kt/ can be followed immediately by /s/ in words like əksepts accepts and fækts facts. In these sequences /p/ and /k/ are not exploded but the /t/ explodes straight into the /s/. Be sure to form the first stop firmly. Other examples are:

Intarapts	interrupts
kontækts	contacts
rıækts	reacts

protekts protects

Stop+nasal

When /t/ or /d/ are followed by a syllabic /n/, as in bath button and ga:dn garden, the explosion of the stop takes place through the nose. This nasal explosion happens in this way: the vocal organs form /t/ or /d/ in the usual way, with the soft palate raised to shut off the nasal cavity and the tongue-tip on the alveolar ridge, but instead of taking the tongue-tip away from the alveolar ridge to give the explosion we leave it in the same position and lower the soft palate, so that the breath explodes out of the nose rather than out of the mouth. Figure 27 shows

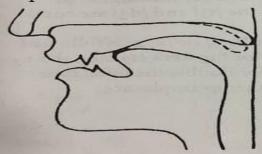


Fig. 27 Nasal explosion in /tn/

that this is the simplest way of passing from /t/ or /d/ to /n/, since the tongue position is the same for all three consonants and the only difference is in the raised or lowered position of the soft palate.

Make a /t/-sound and hold the breath in the mouth, don't let it out; then send all the breath out sharply through the nose (just as in the

exercise described on p. 16) whilst still holding the tongue-tip firmly against the alveolar ridge. Do this several times without allowing the tongue-tip to move at all and feel the air bursting out behind the soft palate. Now start the voice vibrating for /n/ as the soft palate lowers and again do this several times without moving the tongue-tip. Now do the same thing for /dn/, with the voice vibrating through both /d/ and /n/ but the tongue-tip firmly on the alveolar ridge all the time. The effect in both /tn/ and /dn/ is to make the explosion of the stop much less clear than when it bursts out of the mouth; if you do make the explosion by taking the tongue-tip away from the alveolar ridge or if you put the vowel /ə/ between the /t/ or /d/ a id the /n/ it will sound rather strange to English ears, but you will not be misunderstood. Try these other similar words:

ritn written
hidn hidden
ss:tn certain
pa:dn pardon

britn Britain ba:dn burden fraitn frighten wudn wooden

Both /tn/ and /dn/ may be followed by /s/ or /z/ or /t/ or /d/, in words like importance, ks:tnz curtains, important important and fraitnd frightened. When the third consonant is /t/ or /d/ the tongue does not move at all - the soft palate is simply raised again to make the stop complace. For /s/ or /z/ the tongue-tip is lowered very slightly from the alweolar ridge to make the necessary friction. Try the following:

pritns pittance pardoned wodat wouldn't gardens ridns riddance bathz buttons [p:tnd shortened

In words where the /n/ is not syllabic, such as braitnis brightness and gudnis goodness, the explosion is also nasal, and this is also true when the stop is found at the end of one word and the /n/ at the beginning of the next, as in leit nait late night and bæd nju:z bad news. Try the following examples, and be sure that the tongue-tip stays firmly on the alveolar ridge through both /t/ and /n/:

waithis whiteness
sædnis sadness
et nait at night
god nait good night

withis witness kidni kidney what nekst what next? red nose

pa:tna partner sta:t nau start now laudnis loudness bred naif bread knife

Nasal explosion also happens when /m/ follows /t/ or /d/: the soft palate is lowered whilst the tongue-tip is firmly on the alveolar ridge and the lips are then quickly closed for /m/. It is usually more difficult in this case to keep the tongue-tip position until after the breath has exploded through the nose, so you must take care to hold it there. Try the following:

Atmoust utmost

iksaitmont excitement

admit

abit mo:

a bit more

eit men

a good many

atmosphere
admire
admire
oddinent
wait mais white mice
sæd mju:zik sad music
bro:d maindid broad-minded

When you can do this well, you will not find much difficulty with /p, b, k, g/ followed by /m/ or /n/, in words like heipni halfpenny or siknis sickness, or in phrases like teik main take mine or big mæn big man, where the explosion is also nasal. The secret is to hold the stop until the breath has exploded through the nose and only then to change the tongue or lip position for the nasal (if any change is needed). Try the following:

000

raipnis ripeness
aknowledge
stop nau stop now
da:k nait dark night
klab nautis club notice
big mauθ big mouth

frægment fragment help mi: help me terk marn take mine big neuz big nose

/t/or/d/+/I/

/t/ and /d/ are made with the tongue-tip on the alveolar ridge and the sides of the tongue firmly touching the sides of the palate; /l/ is made with the tongue-tip touching the alveolar ridge, but the sides of the tongue away from the sides of the palate so that the breath passes out laterally. The simplest way to go from /t/ or /d/ to /l/ is to leave the what we do. It is called lateral explosion.

Make the closure for /d/ and hold it; then immediately change to /l/

but be sure that the tongue-tip does not leave the alveolar ridge even for a moment. If you find this difficult try biting the tip of your tongue so that it cannot move and then changing to /l/, until you have got the feeling of the breath exploding over the lowered sides of the tongue; then try it with the tongue-tip in its normal position. Do this several times, and then try the same action for /tl/. When, you are satisfied that the tongue-tip does not move, try the following:

mid middle mad muddle bæt battle little

The plural ending /z/ and the past tense ending /d/ can be added to /t!/ and /d!/. For /t!d/ and /d!d/, as in bot!d bottled and mad!d muddled, the tongue-tip does not move at all; the sides are lowered for /!/ and raised again for /d/. For /t!z/ and /d!z/, as in bot!z bottles and ni:d!z needles, the tongue-tip is lowered slightly from the alveolar ridge to give the necessary friction at the same time as the sides are raised to touch the sides of the palate, which they must do for /z/. Try the f'llowing:

hadled huddled k3:dld curdled pedlz models pedlz pedals motiled titled bætlz battles

In all the examples above /|/ is syllabic (see p. 56), but in words such as sædli sadly and 00:tlis thoughtless and in phrases like bæd lait bad light and streit lain straight line, where the /l/ is not syllabic, the explosion takes place in the same way, with the tongue-tip kept firmly on the alveolar ridge. Try the following:

bædli badly
ha:tlis heartless
at la:st at last
red lait red light

ni:dlis needless
leitli lately

Joit laif short life
gud lak good luck

Notice, by the way, that in changing from /n/ to /l/ in words like tsen! channel and mænli manly and in phrases like gri:n li:f green leaf, the tongue-tip also stays on the alveolar ridge whilst the sides of the tongue are lowered. Try the following:

pæn! panel

tan left turn left

tan les one less

CAMED

Try also the following:

pæn|z panels

tʃæn|d channeled

taniz tunnels

Consonant +/s, z, t, d/

Because of the way in which regular plurals are formed in English there are very many sequences of a consonant followed by /s/ or /z/, for example Irps lips, ba:dz birds, snerks snakes, henz hens. And because of the way in which regular past tenses are formed there are also very many sequences of a consonant followed by /t/ or /d/, for example, kist kissed, lave loved, la:ft laughed, ju:zd used.

When you make these sequences, be sure always to form the first consonant firmly and then to put the tongue into position for the /s/or /z/ or the /t/ or /d/ whilst you are still continuing the first consonant. For example, in kaps cups the lips are closed firmly for /p/ and then behind them the tongue-tip is placed in position for /s/, so that when the lips are opened for the release of /p/ the /s/ is heard immediately. The sounds flow into each other; there must never be an interval or hesitation or vowel between them. Try the following:

KAPS cups wiiks weeks dzobz jobs dæmz dams egz eggs SDDZ songs la:ft laughed WDIt washed pru:vd proved si:md seemed gerzd gazed bæŋd banged

kæts cats laifs laughs gudz goods ts:nz turns draivz drives welz wells mist missed WDtft watched bri:ðd breathed bnue owned d3Ad3d judged fild filled

Seven of these sequences /ps, ks, nz, ft, st, nd, ld/ occur in words which are not plurals or past forms; these sequences may then have yet another consonant added to them to form plurals and past forms, for example fikst fixed or gests guests. For these the tongue-tip must be either raised to make contact with the alveolar ridge to make /t/ or /d/, or it must be lowered slightly from the alveolar ridge to make the friction of /s/ or /z/. Be sure that the first two consonants are firmly but smoothly formed before adding the third. Try the following:

GARD)

0

læpst lapsed bronzed bronzed tækst taxed lifts lifts rests rests bendz bends

The sequence /ksts/ occurs in the word teksts texts; the last /s/ is again added by lowering the tongue slightly from the /t/ position to give the /s/ friction.

Also, the more common word siksθ sixth has /θ/ added to /ks/. This needs a smooth but definite movement of the tongue-tip from its position close to the alveolar ridge to a position close to the upper teeth; this will not be difficult if you have mastered the exercises on pp. 33-4.

Consonant + /0/

OM)

The consonants /t, d, n, I/ are followed by /θ/ in the words ertθ eighth, bredθ breadth, tenθ tenth and helθ health. Normally /t, d, n/ and /l/ are made with the tongue-tip on the alveolar ridge, but when followed by /θ/ they are made with the tongue-tip touching the back of the upper teeth. It is then pulled away slightly to give the dental friction of /θ/.

In the words fifth fifth and length the tongue-tip is placed in position for /0/ during the previous consonant, so that again there is no gap between them. There are only a few other words like these—width, handradth hundredth, nainth ninth, thirteenth, etc., well wealth, strength strength. Practise these and those given above until you can go smoothly from the first consonant to the /0/.

All of these words may then have a plural /s/ added, giving ent0s eighths, bred0s breadths, etc. The added /s/ should not be difficult if you have mastered the exercises on p. 34. The secret is a smooth but definite movement of the tongue-tip from the dental position of /0/ to the alveolar position of /s/. Practise the plurals of all the words given above.

Notice also the word twelf θ twelfth, where $|f\theta|$ has |I| before it. Make sure that the |I| is properly formed, and then during the |I| raise the lower lip up to the upper teeth for |f| and then go on to $|\theta|$. This word also has the plural form twelf θ s. Once again move the tongue-tip smoothly but firmly from the $|\theta|$ to the |s| position.

/1/ + consonant

Various consonants may follow /l/; we have already dealt with /lz/, /lθ/a₁-d/ld/ on p. 74 and the remainder are not very difficult if you have

mastered /I/ by itself. Before any consonant the /I/ will be dark (see p. 55) and the following consonant is formed whilst the /I/ is being pronounced. Try the following:

help help folt fault milk milk shelf els else wels Welsh selve bald3 bulge film film

Plural and past forms lengthen some of these sequences as before. Try:

milkt milked felvz shelves baldad bulged filmz films

Nasal + consonant

On earlier pages we have dealt with nasal consonants followed by /z/, /d/ and /θ/. Other sequences in which a nasal consonant is followed by another consonant are found in words like sens sense, pant punch, rivend3 revenge, wont want, d3amp jump, θæŋk thank. In all these cases the vocal organs are in exactly or almost exactly the same position for the nasal as for the second consonant; in sens the tongue-tip is lowered slightly at the same time as the soft palate is raised to give the /s/ friction; in all the other cases the tongue and lips remain in the same position in passing from the nasal to the following consonant. Be sure that the nasal consonant is firmly formed and not replaced by nasalizing the previous vowel (see p. 50).

In the word trainment triumph the /m/-sound may be formed with the lower lip against the upper teeth, rather than with the two lips, but it is not necessary to do this unless you find it helpful.

There are plural or past forms of all the examples given above, e.g. senst sensed, pantst punched, rivendzd revenged, wonts wants, dzampt jumped, dzamps jumps, 0ænkt thanked, 0ænks thanks, traioms triumphs. Remember that with /pt/ and /kt/ the first stop is not exploded (see the consonants.

Longer consonant sequences

In phrases one word may end with a consonant sequence and the next word may begin with one, so that longer sequences such as /ŋkskl/ 5 quite commonly occur, for example in ðə bæŋks kləuzd the bank's closed. As always there is a smooth passage from each consonant to the

-

next, with no gap. If you have mastered the initial and final sequences, the only difficulty will be to pass smoothly from the last consonant of the final sequence to the first of the initial sequence, with no vowel or interval between. This is done, as before, by putting the vocal organs in position for the following consonant during the previous one. The examples below will give you practice in sequences of increasing length.

Three consonants

perhaps not pahæps not best man best mæn help mi: help me fix this fiks dis tfeinz wan change one thank you θæŋk ju: tall tree wotf krikit watch cricket to: | tri: laud krai loud cry nice tune nais tju:n peidz twenti page twenty long skirt lon skatt

Four consonants

twelfth night twelf8 nait next Sunday hi: θæŋkt ðəm he thanked them nekst sandi 0.000 bottled wine that's true botld wain ðæts tru: vast scale fifth floor va:st skerl fift flo: streind3 dri:m strange dream long street lon stri:t small square good student smo: I skwea gud stju:dnt big splash big splæs

Five consonants

0.000

OLEO

prompt start prompt start plants shrivel milk's free pla:nts [riv] milks fri: mikst swi:ts mixed sweets ækt stju:pidli act stupidly öæts splendid that's splendid bent spring bent sprin bent screw bent skru:

Six consonants

hind3d skri:n hinged screen ar helpt stjuat I helped Stuart next Spring Twelfth Street nekst sprin hi: θιηks streit he thinks straight twelf0 stri:t a fenced square ə fenst skweə

Seven consonants

the text's stupid Ji: tempts streind 3 = z she tempts strangers CAMED

Exercises

- I Does your language have sequences of two, three, four or more Does your language have sequences which are similar to English sequences; consonants? If so, list the ones which are similar to English sequences; consonants? If so, list the offer equences? Practise again the 2 Does your language have stop + stop sequences? Practise again the
- examples on p. 69.

 Be sure that you can distinguish the following: spy, espy; state,

 sport; succumb, scum; pol;
- Be sure that you can discussed in the sure that you estate; scape, escape, blow; strange, estrange; ascribe, scribe; terrain, train; below, blow; strange, estrange; ascribe, scribe; terrain, train; belou, stewed; ticket, ticked; wrapped, rapid, esquire, squire; astute, stewed; ticket, ticked; wrapped, rapid,
- wrap it.
 4 Does your language have nasal explosion (p. 70) or lateral explosion (p. 72)? Practise those examples again.
- 5 Practise again all the other examples in this chapter, being very careful to follow the instructions given. Finish with the longer sequences on p. 77.