

ZIPWORDS – AKA ALTERNADES

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In *Language on Vacation*, Dmitri Borgmann introduced the subject of “alternades”. He gave four 9-letter examples: CALLIOPES, CHAINLETS, FLEETNESS and TRUANCIES. What makes these four words alternades is that their letters can be read in a zigzag fashion, with alternate letters spelling out genuine words or names. Thus:

C L I P S	C A N E S	F E T E S	T U N I S
A L O E	H I L T	L E N S	R A C E

Borgmann also provided another name for alternades – “drop-letter charades”. He pointed out that there are very few first-rate 9-letter examples, and still fewer ones of greater length. He offered these 10- and 11-letter examples – SPEARHEADS, COURTLIEST and TRIENNIALLY:

S E R E D	C U T I S	T I N I L Y
P A H A S	O R L E T	R E N A L

Borgmann went on to explain that instead of reading each second letter of a word, there is the option of reading each third one, to create what is called a “trinade”. Some of Borgmann’s 9-letter examples are: ABOMINATE (AMA, BIT, ONE), DECORATED (DOT, ERE, CAD), SEPARATED (SAT, ERE, PAD) and SIMILARLY (SIR, ILL, MAY). He said that 12-letter specimens are much harder to find, and offered MANIPULATORS (MILO, APAR, NUTS) and PUTATIVENESS (PAVE, UTES, TINS).

According to the National Puzzlers League, the alternade was introduced by L’Allegro just over 100 years ago in the June 1917 edition of *The Eastern Puzzler*. L’Allegro was the nom (puzzling name) used by Joseph McClintock Garrison, from Pittsburgh. His very first alternade was the relatively modest 8-letter SCHOOLED (SHOE, COLD).

Wikipedia has an entry for “alternade”, and offers some additional 11-letter examples: CARPETWEEDS (CREWES, APTED), CURTAINLESS (CRANES, UTILS) and SPALLATIONS (SALTOS, PLAIN) – as obscure as some of the words may be, they are all in *Webster’s Third*.

In this article, I am going to improve substantially on the alternades offered by Borgmann and Wikipedia. Recently, I have been investigating alternades further, with considerable input from my good Scrabble friends David Sutton (of Woodcote, Oxfordshire, England) and Chris Hawkins (of Eye, Cambridgeshire, England). Chris posted a query on Facebook asking for examples of words where alternate letters spelled out shorter words; Chris was unaware of the century-long history of alternades. As my other Scrabble friend David Sutton and I became involved, we started to use a different terminology with which to discuss alternades. We have replaced “alternades” with “zippable words” (shortened to “zipwords”) where a zipword is defined as a word from which one can take letters at prescribed intervals, for a given interval, and concatenate them to produce a set of valid component words. We have called the interval the

“ply”. Thus, referring back to the very first alternade, SCHOOLED is a 2-ply zippable word. This updated terminology will make it easier to refer to improved examples of alternades.

David Sutton’s role in our zipwords project was to carry out computerised searches of *Collins Official Scrabble Words* (2015 edition). As a result, he managed to find over 3500 2-ply zipwords having 4 to 11 letters. The majority of these 3500+ are of lengths 4 to 7 letters. But the longer ones, 8 and more letters, are those of most interest to the logologist. Here are 25 examples from his collection of 230 2-ply 8-letter zipwords:

bluetits	butt	leis	pleonasm	pens	loam
countess	cuts	ones	psalmist	pams	slit
encarpus	ecru	naps	rainouts	riot	anus
fiascoes	face	isos	shoalier	sole	hair
furrings	frig	urns	soybeans	syen	obas
grounded	gone	rudd	stewpots	sept	twos
gardees	gade	ures	teosinte	toit	esne
hairnets	hint	ares	theorems	term	hoes
isleless	ills	sees	triadist	tids	rait
mounseer	muse	oner	triolets	tilt	roes
obviable	oval	bibe	tweeness	tens	wees
oghamist	ohms	gait	weirdoes	wide	eros
personae	proa	esne			

As the length of zipwords increases, the number of 2-ply zipwords decreases substantially. David has unearthed 40 2-ply 9-letter zipwords. Here are all 40:

agrarians	arras	gain	peartness	pates	erns
ambiances	abacs	mine	plainness	panes	lins
ampassies	apsis	mase	priestess	pises	rets
arrestees	arses	rete	rheumiest	remet	huis
ballooned	blond	aloe	sapiences	specs	aine
bluebeats	bubas	leet	saprobial	spoil	arba
calliopes	clips	aloe	seapieces	saics	epee
chainlets	canes	hilt	seigneurs	sinus	eger
choosiest	coset	hois	sheerness	seres	hens
collapses	class	olpe	smoochers	soces	mohr
deergrass	degas	errs	speedless	sedes	pels
fleetness	fetes	lens	sphairées	shies	pare
forwastes	frats	owse	spurnings	sunns	prig
furriness	fries	urns	staidness	sades	tins
gainliest	gilet	anis	stainless	sanes	tils
greeniest	genet	reis	sternites	sents	trie
greenness	genes	rens	sweirness	seres	wins

insensate	isnae	nest	teosintes	toits	esne
maintains	mitis	anan	threeness	trees	hens
mounseers	muses	oner	weirdness	wides	erns

David has unearthed 7 2-ply 10-letter zipwords; here are all of them:

barberries	brere	abris
barretries	brere	artis
carpetweed *	crewe	apted
heartseeds	hated	erses
parrottries	prore	artis
peopleless	polls	epees
spallation *	salto	plain

Here are all 4 of the 2-ply 11-letter zipwords which David has found:

carpetweeds *	crewes	apted
spallations *	saltos	plain
stoicalness	socles	tians
triennially *	tinily	renal

Asterisked (*) items have been mentioned earlier in this article, and aren't new to the world of logology. Even so, the unasterisked items are remarkable additions to the very limited collection of 10- and 11-letter examples. David has found no 2-ply zipwords longer than 11 letters.

As mentioned above, Borgmann provided some 9- and 12-letter examples of trinades. Using the new technology, trinades have become 3-ply zipwords. David Sutton has managed to find a total of 695 3-ply 9-letter zipwords. Here are 20 examples:

archaisms	ahs	ram	cis
baseliner	ben	ale	sir
copulated	cut	ole	pad
esuriency	ern	sic	uey
facetimed	fem	ate	cid
garageman	gam	aga	ren
homelands	hen	old	mas
jugulates	jut	ule	gas
kawakawas	kaw	aka	was
lunitidal	lid	uta	nil
majorette	mot	art	jee
nanoworld	nor	awl	nod
offloaded	old	foe	fad
peasantry	pst	ear	any

resoluble	rob	ell	sue
satanical	sac	ana	til
televised	tes	eve	lid
vasovagal	vog	ava	sal
washrooms	who	arm	sos
zopilotes	zit	ole	pos

David has managed to unearth 171 3-ply 10-letter words. Each of these breaks down to one 4-letter word and two 3-letter words. Here are 20 examples:

arabicized	abid	riz	ace
benevolent	belt	eve	non
catamarans	cars	ama	tan
denaturant	dart	eta	nun
ejaculated	ecad	jut	ale
forebodies	feds	obi	roe
gelatinate	gane	eta	lit
halogenate	hone	aga	let
isomerized	imid	sez	ore
legitimate	lime	eta	git
memorisers	moss	ere	mir
notepapers	neps	ope	tar
overeaters	orts	vee	ear
philosophy	ploy	hop	ish
rereleased	read	els	ree
saccharify	scry	ahi	caf
temulently	tuny	elt	mel
titanesses	tass	ins	tee
uraninites	unis	rit	ane
wateriness	wens	are	tis

David has discovered 58 3-ply 11-letter words. Each breaks down to two 4-letter words and one 3-letter word. Here are 20 examples:

amobarbital	abba	mail	ort
baronetical	bota	anil	rec
cinematized	cete	imid	nas
deregulated	dele	egad	rut
fumatoriums	farm	utis	mou
gamogeneses	gone	ages	mes
hamamelises	hale	amis	mes
imprisoning	iron	ming	psi

laminarises	lire	anis	mas
meganewtons	mawn	ents	geo
mineralists	melt	iris	nas
paroxetines	pote	axis	ren
popularised	pure	olid	pas
radicalised	rile	acid	das
reticulated	rile	ecad	tut
revegetated	rete	egad	vet
seriousness	siss	eons	rue
telekineses	tene	ekes	lis
vitaminised	vane	imid	tis
vomeronasal	vena	oral	mos

David has identified 17 3-ply 12-letter words. Each breaks down to three 4-letter words. That all three constituent words are the same length is more aesthetically pleasing than the 3-ply 10- and 11-letter words. Here are all 17 examples:

agamogeneses	ames	gone	ages
amobarbitals	abba	mail	orts
curativeness	cave	utes	rins
definiteness	dite	enes	fins
derisiveness	dive	eses	rins
disinherison	dies	intro	shin
facilenesses	fins	alee	cess
fugitiveness	five	utes	gins
literariness	lere	iris	tans
locomobility	lobi	omit	coly
malapertness	mare	apts	lens
manageresses	mars	agee	ness
metapolitics	mali	epic	tots
moderateness	mete	ores	dans
nugatoriness	nare	utis	gons
retiringness	rine	ergs	tins
separateness	sate	eres	pans

Onwards and upwards. David has found four 3-ply 13-letter words, each consisting of one 5-letter word and two 4-letter words. They are:

melanogeneses	mages	enes	lone
novocentenary	nonny	octa	veer
tumorigeneses	toges	ures	mine
tumorigenesis	toges	ures	mini

David has found a solitary 3-ply 14-letter word, consisting of two 5-letter words and one 4-letter word. It is:

benevolentness belts evens none

David was unable to find any 3-ply 15-letter words, which is a shame, as any such words would be composed of three 5-letter words, which has an appealing aesthetic to it.

How about 4-ply zipwords? *Language on Vacation* calls these "quadades" or "quaternades", and offers just two of these: PANTALOONERY (PAN, ALE, NOR, TOY) and SUBTERRANEAN (SEN, URE, BRA, TAN). However, David Sutton has found 39 4-ply 12-letter words. The full set is:

adulterating	att	dei	urn	lag	overdeviated	oda	vet	eve	rid
adulterising	ats	dei	urn	lig	pantalooney*	pan	ale	nor	toy
ameliorating	ait	moi	ern	lag	paraldehydes	ply	add	ree	ahs
ameliorators	ait	moo	err	las	passemesure	pes	amu	ser	sae
amelioratory	ait	moo	err	lay	pathobiology	pol	abo	tig	hoy
carrageenans	can	aga	ren	res	reflationary	ran	eta	fir	loy
continuator	cit	ono	nur	tas	rootednesses	res	ods	one	tes
defaecations	dei	eco	fan	ats	smithereened	she	men	ire	ted
defeudalised	dui	eds	fae	eld	speleologist	seg	poi	els	lot
defeudalises	dui	eds	fae	els	spheroidises	sri	pos	hie	eds
deflationary	dan	eta	fir	loy	spheroidizes	sri	poz	hie	eds
etherealness	ern	tee	has	els	subauditions	sui	udo	bin	ats
gradualities	gut	rai	ale	dis	subterranean*	sen	ure	bra	tan
heatednesses	hes	eds	ane	tes	superfusions	sri	ufo	pun	ess
heavenliness	hen	ene	als	vis	superpraises	sri	ups	pre	eas
labouredness	lun	are	bes	ods	superrefines	sri	urn	pee	efs
leopardesses	las	ers	ode	pes	trophobiotic	tho	rot	obi	pic
longicaudate	lid	oca	nat	gue	unadmonished	ums	noh	ane	did
lophophorate	lor	opa	pht	hoe	uninterested	uts	net	ire	ned
motherhouses	meu	ors	the	hos					

Longer 4-ply examples exist. At the 13-letter level, the constituent words would be one 4-letter word and three 3-letter words. David managed to locate just eight of these:

baccalaureate	bare	ale	caa	cut
bacteriolyses	bels	ary	cis	toe
emotionalised	eild	moi	ons	tae
perditionable	pine	eta	rib	dol
savourinesses	sues	ars	vis	one
speleologists	segs	poi	els	lot
subterraneans	sens	ure	bra	tan
subterraneous	sens	ure	bro	tau

And 4-ply 14-letter words can also be found. David found just 5 of these:

baccalaureates	bare	ales	caa	cut
etherealnesses	erne	tees	has	els
labourednesses	lune	ares	bes	ods
pansexualities	pele	axis	nut	sai
pathobiologies	pole	abos	tig	hoi

David didn't manage to find any 4-ply zipwords longer than 14 letters.

Even 5-ply words are possible. David found 155 5-ply 10-letter zipwords, each composed of five 2-letter words. Here are some of them:

aborigines	ag	bi	on	re	is
aluminised	an	li	us	me	id
apostrophe	ar	po	op	sh	te
balneation	ba	at	li	no	en
bituminate	bi	in	ta	ut	me
deliberate	de	er	la	it	be
elaborator	er	la	at	bo	or
expatriate	er	xi	pa	at	te
harpooneer	ho	an	re	pe	or
kinetosome	ko	is	no	em	te
lepidolite	lo	el	pi	it	de
mazarinade	mi	an	za	ad	re
metafemale	me	em	ta	al	fe
outpassion	os	us	ti	po	an
piperidine	pi	id	pi	en	re
remunerate	re	er	ma	ut	ne
seminomata	so	em	ma	it	na
taxability	ti	al	xi	at	by
telomerase	te	er	la	os	me
urinometer	um	re	it	ne	or

5-ply words with 11 letters also exist in profusion. These are built up from one 3-letter word and four 2-letter words. David found 211 of these, including the following:

aluminosity	any	lo	us	mi	it
apostleship	alp	pe	os	sh	ti
camerawomen	can	aw	mo	em	re
dehumanised	dad	en	hi	us	me
elaborating	erg	la	at	bi	on
featherhead	fed	er	ah	te	ha

gelatinated	gid	en	la	at	te
hematoxylin	hon	ex	my	al	ti
imagination	inn	ma	at	gi	io
jealoushood	jud	es	ah	lo	oo
keratometer	kor	em	re	at	te
leatherhead	led	er	ah	te	ha
mountaineer	mar	oi	un	ne	te
naturalises	nas	al	ti	us	re
outmarriage	ore	ur	ti	ma	ag
petalomania	poa	em	ta	an	li
readmission	rin	es	as	di	mo
subpoenaing	seg	un	ba	pi	on
telomerases	tes	er	la	os	me
zootrophies	zos	op	oh	ti	re

And then there are 85 5-ply 12-letter zipwords which David found. Composed of two 3-letter words and three 2-letter words, here are some examples:

arpeggiation	ago	rin	pa	et	gi
bituminating	bin	ing	ta	ut	mi
canaliculate	cit	ace	nu	al	la
deliberating	den	erg	la	it	bi
evaporations	ern	vas	at	pi	oo
foolhardiest	fas	ort	od	li	he
gelatinating	gin	eng	la	at	ti
hematologist	hos	elt	mo	ag	ti
isoperimeter	ire	sir	om	pe	et
jealoushoods	jud	ess	ah	lo	oo
keratometers	kor	ems	re	at	te
literateness	las	its	te	en	re
metagalaxies	mae	els	ta	ax	gi
nematologist	nos	elt	mo	ag	ti
octaploidies	ole	cos	ti	ad	pi
preachership	phi	rep	er	as	ch
rehabilitant	rin	elt	hi	at	ba
semiparasite	sat	ere	ma	is	pi
solidarities	sae	ors	li	it	di
weatherwomen	wee	ern	aw	to	hm

And then there are 26 5-ply 13-letter zipwords which David found. Composed of three 3-letter words and two 2-letter words, here are some examples:

appetisements	ain	pst	pes	em	te
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leatherleaves	lev	ere	als	te	ha
legitimatised	lis	eme	gad	it	ti
metabolisable	mob	ell	tie	as	ba
metasomatoses	mos	eme	tas	at	so
parameterised	pes	ate	red	ar	mi
spelaeologist	sei	pos	elt	lo	ag
thermoelement	toe	hen	elt	re	mm
unpasteurised	uts	nee	pud	ar	si
volumenometer	vet	one	lor	um	me

At the 14-letter level, it's still possible to find 5-ply zipwords, these having four 3-letter words and one 2-letter word. Here are the full 9 such words which David discovered:

cohesibilities	cit	obi	hie	els	si
deliberateness	den	ere	las	its	be
legitimateness	lin	eme	gas	its	te
literatenesses	las	its	tee	ens	re
percussionists	psi	ess	rit	cos	un
spelaeologists	sei	pos	elt	los	ag
thermoelements	toe	hen	elt	res	mm
volumenometers	vet	one	lor	ums	me
waterishnesses	wis	ass	the	ens	re

We like the aesthetic appeal of 5-ply 15-letter zipwords as each will be composed solely of 3-letter words. The only two such words which David found are:

elaboratenesses	ere	las	ats	bee	ons
undernourishing	uns	noh	dui	ern	rig

And now finally at the 6-ply level Starting with 12-letter zipwords, these will comprise six 2-letter words. David discovered 40 of these, including:

adulteration	ar	da	ut	li	to	en
amalgamation	am	ma	at	li	go	an
antiheroines	ar	no	ti	in	he	es
demutualises	da	el	mi	us	te	us
deuterostome	do	es	ut	to	em	re
diazomethane	de	it	ah	za	on	me
elementarily	et	la	er	mi	el	ny
equabilities	el	qi	ut	ai	be	is
exopeptidase	et	xi	od	pa	es	pe
hemodialysis	ha	el	my	os	di	is
italianating	in	ta	at	li	in	ag

materialised	ma	al	ti	es	re	id
motoneuronal	mu	or	to	on	na	el
opotherapies	or	pa	op	ti	he	es
salutational	st	ai	lo	un	ta	al
testamentary	te	en	st	ta	ar	my
unhabituated	ut	nu	ha	at	be	id
unionisation	us	na	it	oi	no	in
unsaturation	ur	na	st	ai	to	un
utopianising	un	ti	os	pi	in	ag

6-ply 13-letter zipwords are comprised of one 3-letter word and five 2-letter words. David discovered 34 of these, including:

damageability	day	ab	mi	al	gi	et
demutualising	dag	el	mi	us	ti	un
denationalise	doe	en	na	al	ti	is
desexualising	dag	el	si	es	xi	un
familiarising	fag	ar	mi	is	li	in
fetishisation	fin	es	ta	it	si	ho
haemodialysis	his	aa	el	my	os	di
immaterialise	ire	mi	ma	al	ti	es
labialisation	lin	as	ba	it	ai	lo
monoaminergic	mic	on	ne	or	ag	mi
monotherapies	mes	or	na	op	ti	he
multinational	mal	ut	li	to	in	na
penepplanation	pan	en	na	et	pi	lo
podsolisation	pin	os	da	st	oi	lo
radialisation	rin	as	da	it	ai	lo
renationalise	roe	en	na	al	ti	is
ritualisation	rin	is	ta	ut	ai	lo
semasiologist	sot	el	mo	ag	si	is
solemnisation	sin	os	la	et	mi	no
subsaturation	sun	ur	ba	st	ai	to

6-ply 14-letter zipwords are comprised of two 3-letter words and four 2-letter words. David discovered 17 of these, including:

annexationists	att	nis	no	en	xi	as
cautiousnesses	cue	ass	un	te	is	os
fetishisations	fin	ess	ta	it	si	ho
immaterialised	ire	mid	ma	al	ti	es
labialisations	lin	ass	ba	it	ai	lo
multinationals	mal	uts	li	to	in	na

penepplanations	pan	ens	na	et	pi	lo
radialisations	rin	ass	da	it	ai	lo
renationalised	roe	end	na	al	ti	is
semasiologists	sot	els	mo	ag	si	is

6-ply 15-letter zipwords are comprised of three 3-letter words and three 2-letter words. David discovered just 1 of these:

opinionatedness **one** **pas** **its** **ne** **id** **on**

And now finally, 7-ply zipwords. David found three 7-ply 14-letter zipwords, comprised simply of seven 2-letter words:

admeasurements	ar	de	mm	ee	an	st	us
onomatopoieses	op	no	oi	me	as	te	os
onomatopoesis	op	no	oi	me	as	ti	os

David found no 7-ply 15-letter words.

David's searches ended at the 15-letter level, as *Collins Official Scrabble Words* (2015 edition) only contains words up to 15 letters. Of course, there may be many zipwords of lengths 16 or more letters among the words listed in mainstream dictionaries. Can readers offer any zipwords with more than 15 letters, and of any ply (although 2-ply words seem highly unlikely, given that the best so far discovered have only 11 letters).

Footnote 1: All of the words in this article, except one, both zipwords and the shorter words making up the zipwords, can be found in either *Collins Official Scrabble Words* (2015 edition) or *Webster's Third*. Indeed, most of the words can be found in both these sources. The exception not listed by either of these sources is PUTATIVENESS, the 3-ply 12-letter zipword offered by Borgmann – nor is it listed in other major dictionaries. PUTATIVENESS will be the subject of a separate article.

Footnote 2: A full listing of David's zipwords finds, from 2-ply to 7-ply for all word lengths from 4 to 15 letters can be requested from the author of this article.