

ROOTS AND BRANCHES: A SIMPLIFIED DIAGRAM

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In *Making the Alphabet Dance* (1996), Ross Eckler writes (page 147):

In general, there are many ways that a word can be transdeleted; if all are diagrammed, the result is an intertwining tangle that is collectively called the *roots* of a word (by analogy with the roots of a tree). The successive transadditions of a word, called the *branches*, can be equally complex. A relatively simple picture of the roots and branches of a word, OLYMPIC, is given in 49C.

As he clearly implies, the full picture of the roots and branches of a word can be an "intertwining tangle". A particular word may be reached via several different transdeletions (or transadditions), and the resulting diagram can be confusing, with many lines crossing each other, and there being no clear indication of the structure.

In order to avoid the usual complexity of an intertwined tangle, I decided to develop a method for displaying the roots and branches of any word, however complex. A spreadsheet provides a good vehicle for displaying roots and branches, as long as conventions are developed for showing words in some sort of logical order and for showing linkages between the same word appearing in different parts of the spreadsheet. The branches of the word OLYMPIC in *Making the Alphabet Dance* are given in spreadsheet form at the bottom of this page and a bit of the one opposite.

The following conventions are used. When adding a single letter to a word, the added letters are ordered alphabetically (for example, OLYMPIC plus A appears in a higher row than OLYMPIC plus E). The first time a word appears in a row it is shown in uppercase type; when it appears a second or subsequent time in a lower row, it is shown in lowercase type. When a word can have no further letters added (no further transadditions possible), the symbol < is used to its right. When a word appears in lowercase type, the symbol > is used to its right, indicating that the remainder of the chain continues elsewhere (in a higher row of the spreadsheet).

7	8	9	10	11
OLYMPIC	+A= MYOPICAL	+B= AMBLYOPIC	+L= COMPLIABLY<	
			+T= COMPATIBLY<	
		+D= DIPLOMACY	+I= OLYMPIADIC<	
		+E= POLYAEMIC	+H= POLYHAEMIC	+T= MYELOPATHIC +O=
				+Y=
	+E= POLYEMIC	+A= polyaemic>		
		+R= POLYMERIC	+F= CLYPEIFORM	+S= CYPSELIFORM<
		+T= LIPECTOMY	+I= TIME POLICY<	
			+X= COMPLEXITY<	
	+I= IMPOLICY	+S= MISPOLICY<		
	+S= OLYMPICS	+C= CYCLOPISM<		
		+I= mispolicy>		
		+O= POLYSOMIC	+E= POLYOECISM	+T= COMPOSITELY<

It can be seen that there are 13 branches (spreadsheet rows). It can also be seen that the rightmost branches (those with the longest words) end in the 12-letter words HOMEOTYPICAL and POLYCYTHEMIA.

In the same way, the roots of a word can be represented in a similarly ordered fashion. Here are the roots of OLYMPIC, as diagrammed in *Making the Alphabet Dance*, but re-presented in my spreadsheet format.

7	6	5	4	3
OLYMPIC	-C= EMPLOY	-O= IMPLY	-M= Pily	-I= PLY<
				-L= LIP<
			-P= LIMY	-Y= MIL<
			-Y= LIMP	-L= IMP<
				-P= mil<
	-I= COMPLY<			
	-L= MYOPIC<			
	-M= POLICY	-O= PYLIC	-C= pily>	
			-L= PYIC	-P= ICY<
				-Y= PIC<
			-Y= CLIP	-C= lip>
				-L= pic>

Having demonstrated a method for displaying the branches of a word, let's now expand it, showing that a larger set of branches can still be displayed in an orderly and comprehensive fashion. I've taken the OLYMPIC branches above, and searched for further transadditions, using the full range of dictionaries at my disposal, slotting the new transadditions into their rightful places in the diagram. The resultant diagram is given on the next three pages. It can be seen that there are now 71 branches (spreadsheet rows). It can also be seen that the rightmost branches (those with the longest words) end in the 14-letter words POLYCYTHAEMIAS and COMPENSATINGLY. Note, too, how the lowercase words demonstrate that different sequences of transadditions can arrive at the same word: COMPILATORY can be reached by the route OLYMPIC, MYOPICAL, PILCOMAYO, POLYATOMIC and OLYMPIC, MYOPICAL, PYROMALIC, MICROTYPAL. Both routes can then be continued via CRYPTOGLIOMA and CRYPTOGLIOMAS.

Using the spreadsheet method of recording roots and branches, I intend to present further articles in Word Ways.

HOMEOTYPICAL<
POLYCYTHEMIA<

7	8	9	10	11
OLYMPIC	+A= MYOPICAL	+B= AMBLYOPIC	+L= COMPLIABLY<	
			+H= COMPYNABIL<	
			+T= COMPATIBLY<	
	+D= DIPLOMACY	+I= OLYMPIADIC<		
	+E= POLYAEMIC	+H= POLYHAEMIC	+K= HYPOKALEMIC<	
			+N= POLIMECHANY	+L=
			+T= MYELOPATHIC	+O=
				+T=
				+Y=
		+L= OLYMPICAL	+B= compliably>	
			+X= POLYCLIMAX<	
			+Y= MYOPICALLY<	
	+O= PILCOMAYO	+T= POLYATOMIC	+H= HOMOTYPICAL	+E=
			+N= TOPONYMICAL	+E=
			+R= COMPILATORY	+G=
			+S= POLYSOMATIC<	
	+R= PYROMALIC	+E= PROMYCELIA	+K= POLICYMAKER<	
			+L= PROMYCELIAL	+T=
			+S= PROMYCELIAS	+K=
		+R= MICROPYLAR	+I= PRIMARY COIL	+S=
		+T= MICROTYPAL	+H= MICROPHYTAL<	
			+I- IMPLICATORY	+C=
			+O= compilatory>	
+E= POLYEMIC	+A= polyhaemic>			
	+D= POLYDEMIC<			
	+H= POLYHEMIC	+A= polyhaemic>		
		+L= CELIOLYMPH	+S= MESOPHYLLIC<	
		+P= POLYPHEMIC<		
		+S= MYCOPHILES	+L= mesophyllic>	
			+T+ CHIMLEY-POTS	+B=
+N= MONEY CLIP	+C= COMPLIENCY<			
	+O= POECILONYM	+G= COEMPLOYING<		
		+S= POECILONYMS<		
	+S= MONEY CLIPS	+S= OLYMPICNESS<		
	+Y= COMPLEYNIT	+A= AMYLOPECTIN	+E=	
			+O=	
			+S=	
			+G= COMPETINGLY<	
			+H= MENOTYPHLIC	+I=
				+O=
				+P=
			+S= COMPLEYNTIS	+A=
				+R=
+R= POLYMERIC	+F= CLYPEIFORM	+S= CYPSELIFORM<		
	+S= MICROPYLES	+F= cypseliform>		
		+P= POLYSPERMIC<		
+T= POLYSEMIC	+H= mycophiles>			
	+N= money clips>			
	+O= POLYOECISM	+T= COMPOSITELY<		

PHONEMICALLY<

POLYMETOCHIA +O= HOMOEOTYPICAL<

+S= POLYMETOCHIAS<

+T= MYTHOPOETICAL<

PHYTOCLIMATE +S= PHYTOCLIMATES<

POLYCYTHEMIA +A= POLYCYTHAEMIA +S= POLYCYTHAEMIAS<

+C= POLYCYTHAMEIC<

+S= POLYCYTHEMIAS +A= polycythaemias>

COME INTO PLAY +S= COMES INTO PLAY<

CRYPTOGLIOMA +S= CRYPTOGLIOMAS<

POLICYMAKERS<

POLYMETRICAL<

policymakers>

PRIMARY COILS<

MICROTYPICAL<

CHIMBLEY-POTS<

PINEALECTOMY<

come into play>

POLYSEMANTIC +D= LISTED COMPANY<

+G= SALPINGECTOMY +N= COMPENSATINGLY<

+H= PHYSICOMENTAL<

HYPOLIMNETIC<

MONOPHYLETIC<

NYMPHOLEPTIC<

polysemantic>

POLYCENTRISM +S= POLYCENTRISMS<

		+R= micropyles>
+T= LIPECTOMY		+I= TIME POLICY<
		+L= COMPLEITLY<
		+N= compleynit>
		+R= POLYMETRIC +S= SPERMOLYTIC +N= polycentrism>
		+X= COMPLEXITY<
+I= IMPOLICY	+A= OLYMPIACI	+D= OLYMPIADIC<
	+S= MISPOLICY<	
+S= OLYMPICS	+C= CYCLOPISM	+S= CYCLOPISMS<
	+E= polysemic>	
	+I= mispolicy>	
	+K= OLYMPICKS<	
	+O= POLYSOMIC	+E= polyoecism>
+T= POLYMICT	+E= lipectomy>	
	+U= MULTICOPY<	

A Gallimaufry of Words

Since 1994, Anu Garg has hosted www.wordsmith.org, an Internet website that features a new offbeat English word each day. He has assembled the best of this material into *A Word A Day* (2002, John Wiley & Sons, ISBN 0-471-23032-4), a \$14.95 paperback containing capsule histories of more than 200 such words.

Instead of a dictionary-style alphabetical listing, he has chosen to present words in related groups of four or five apiece. A sampling:

aeiou words: armigerous, epuration, inquorate, ossuaries, uvarovite
 lesser-known counterparts: epizootic, anile, estivate, thegosis, trilemma
 reversible words (semordnilaps): avid, ogre, debut, nonet, rebus
 words for odds & ends: aglet, chad, tittle, grommet, pintle
 spell-checker demons: impassible, wether, specie, angary, demur
 words from placenames: Ultima Thule, El Dorado, Timbuktu, Brigadoon, stoic

Perhaps the most fascinating etymology in the book is the one for *the full monty*: there are six origins relating to British Field Marshal Montgomery, plus eight from a variety of other sources. And the word *truel* includes the surprising optimal strategy that the poorest shooter out of three ought to follow when engaged in a three-way duel!

Try it—you'll like it.