SIXTEEN-LETTER TRANSPOSAL PAIRS

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Long transposal pairs, especially those in which the letters of one word must be thoroughly rearranged to form the other, have always fascinated logologists; in the February 1976 issue of Word Ways, I presented a list of well-mixed transposal pairs of 13 letters or more. A well-mixed transposal pair is defined as one in which at most three consecutive letters in one word appear in the other; for example, both words of the 17-letter transposal pair baSIPaRACHromATin - mar-SIPobRAnCHiATa contain the trigram SIP and the bigrams CH, RA and AT, but no others. This transposal pair, discovered by Charles Holding and first appearing in The Enigma in 1972, is the longest well-mixed one known; in fact, the February 1976 article and the May 1976 Colloquy listed no 16-letter well-mixed pairs, four 15-letter well-mixed pairs, and eleven 14-letter well-mixed pairs (plus one well-mixed triple). Since then, John Edward Ogden discovered in 1978 the 16-letter well-mixed pair HEmatocrystallin - tHErmodynamic; furthermore, a well-known 15-letter well-mixed pair can be pluralized to obtain megachiroptera - cinemographers.

Prior to 1973, most long transposals were discovered by chance; in that year, Dennis Ritchie of Bell Telephone Laboratories used a computer to sort the boldface words of Webster's Second into a transposal dictionary (more precisely, that subset of Webster's Second on a computer tape produced by the Air Force in the 1960s, later used to produce a four-volume reverse dictionary). This revealed numerous transposal pairs not previously discovered, including many that were well-mixed (but none of more than 14 letters).

I decided that it might be worthwhile to see how many transposal pairs had been overlooked by the Ritchie survey, either inferred forms not on the Air Force tape (plurals, past tenses of verbs, participles, etc.) or outside Webster's Second. One word list seemed especially suited for this undertaking. Jack Levine's three-volume list of pattern words (which groups together words having the same letter-pattern, such as EXCESS and BAMBOO) contains all boldface words in Webster's Second and Third, plus their inferred forms; furthermore, part of the transposal sorting job had already been done. In Levine, any transposal pair must appear in a group of words containing the same distribution of letters (for example, the 1000+ 16-letter words such as CIrCumnAvIgAtloN and mISuNDerStaNDINg which have one letter repeated three times and three other letters repeated twice). However, in view of the potential transposal pairs, the list contains more than 100 (!) well-mixed pairs of more than 10 letters, the list contains more than 100 (!) well-mixed pairs of more than 10 letters.

After weeding out fourteen transposal pairs (see above), leaving only 16-letter or more combinations, the list contained only one 16-letter pair. The transposal pair, discovered by Charles Holding and first appearing in The Enigma in 1972, is the longest well-mixed one known; in fact, the February 1976 article and the May 1976 Colloquy listed no 16-letter well-mixed pairs, four 15-letter well-mixed pairs, and eleven 14-letter well-mixed pairs (plus one well-mixed triple). Since then, John Edward Ogden discovered in 1978 the 16-letter well-mixed pair HEmatocrystallin - tHErmodynamic; furthermore, a well-known 15-letter well-mixed pair can be pluralized to obtain megachiroptera - cinemographers.

Complete Mixed
hematocryl
r petrographer
r incontrovertible
r cinematographer
r pretransplantation

Transpose prefix on
r misconfigured
r mistransposed
r misconfigured

Add prefix on
r intracisternal
r interlaminar
r impregnable
r imperishable
r German
r unanswerable
r presentable

Create prefix on
r adiadochoctic
r chiroptera
r interlaminar
r petrographer

Variant spellings
r streptothricus
r streptothricus
in view of the fact that much sorting was still necessary to winnow out potential transposal pairs, I decided to restrict myself to words of 16 letters, the longest ones in Levine. (Even so, there were 19 lists with more than 100 words apiece to be sorted, including the monster list cited above!)

After weeding out keypunch errors, my survey of Levine yielded only fourteen transposal pairs not detected by Ritchie (or not plurals or past tenses of shorter pairs detected by Ritchie)—alas, no new well-mixed ones. The full list of transposal pairs is presented below, sorted into more-or-less-logical categories. The digit 2 or 3 following a word identifies the edition of Webster in which it was found. Plurals and past tenses are routinely indicated (in lightface run-on entries) in Webster’s Third but not in Webster’s Second; all unverified plurals are enclosed by parentheses. Plurals of 15-letter transposal pairs, or past tenses of 14-letter ones, are indented. All Ritchie transposals are tagged with the letter R.

Complete Mixing

- hematocrystallin 2 - thermonastically 3
- petrographically 23 - pterylographical 23
- incontrovertible 23 - introconvertible 2
- cinematographers 23 - megachiropeteran(s) 23
- pretransmission(s) 2 - transimpression(s) 2

Transpose prefix, move to suffix

- misconfiguration 2 - configurationism 23
- misunderstander(s) - remisunderstand(s) 2
- misconstruction(s) - constructionisms 23

Add prefix or suffix to transposed root

- intracisternally 3 - intracrystalline 3
- interlamination(s) 23 - internationalism 23
- impressivenesses 23 - permissivenesses 23
- impressibilities 23 - permissibilities 23
- Germanification(s) 2 - remagnification(s) 2
- unnameableness(es) 2 - unnamenableness(es) 2
- presentiveness(es) 2 - pretensiveness(es) 2

Create prefix out of variant suffix spelling

- adiadochokinesia 2 - diadochokinesias 3

Transpose prefix or suffix

- perchlorination(s) 23 - prechlorination(s) 3

Variant spellings

- streptothricosis 23 - streptothrichosis 23
Interchange of components in compound words

- streptothricoses 23 - streptothrichoses 23
- micromillimeters 23 - micromillimetres 23
- lacklusterness(es) 2 - lacklustrenese(s) 2

ANSWERS

OCCUPATION

1. jeweler: c
3. antique dealer: a
5. delighted: d
6. railroad worker: w
8.atory attendant: a
10. seamstress: s
13. Elk memo disected, mummified: e
19. defiled: d
21. interested, disinterested: i

GEMS FROM THE GEM CLOSET

1. serene 2.
2. sagacious 3.
4. unsophisticated 5.
6. austere 7.
8. unprecedented 9.
10. diabetes 11.

KICKSHAWS

Quickie Puzzle: Edward Nebesit, and his family
in the name of love.

A four-by-four puzzle, the answer is in which the letters RWG are the equivalent of:

Carrollian Words: equivalent to an equivalent in which the letters RWG are the equivalent of:...