## DERIVED PALINDROMES THREE MONTHS LATER

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In the previous issue of this journal I discussed the logological significance of words like AEGEAN. If the N is moved to the left edge of the word, then the result (NAEGEA) read from right to left is AEGEAN. Since AEGEAN can only be made into a palindrome by moving one of the letters, I referred to it as a derived palindrome.

In the preceding example an entire letter is transposed to the opposite edge of the word, but it is also possible to derive palindromes by moving parts of letters. Compare, for example, the upper case letters E and F. The former consists of a vertical line segment which forms a right angle with three equidistant parallel line segments. Since the upper case letter F is the same as the letter E without the bottom-most horizontal line segment, the former can be transformed into the latter by moving that horizontal line from E to F. So what do these lines have to do with palindromes? If a word begins with F and ends in E (or the reverse), and if the intervening letters are palindromic, then we are dealing with a word that can be transformed into a palindrome by the movement of a part of the E onto the F. This is precisely the case in the word FUGUE. Take the lowest of the three parallel lines on the last letter and move it onto the bottom of the vertical line in the first letter of that word so that a right angle is formed with that vertical line, thereby creating an E. The sequence of letters formed in this manner is EUGUF. Read that word from right to left and one has FUGUE. FUGUE is therefore an example of a palindrome derived by the movement of a part of a letter at one edge to a letter on the opposite edge.

In this brief note I concentrate on palindromes derived as described above. I restrict my discussion henceforth to the movement of a line segment from an upper case letter at one word edge to another upper case letter at the opposite word edge, although there are other variants on the same theme one could pursue in future work (e.g. lines in lower case letters). In the following investigation I consider the upper case letters in the Times New Roman font: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z. Given these representations of the twenty six letters, the following are the only pairs differing in the presence vs. absence of a single line segment:  $E \sim F$ ,  $I \sim L$ ,  $I \sim T$ ,  $P \sim R$ ,  $Q \sim O$ , and  $Y \sim X$ . Here is a list of the examples of derived palindromes I have found involving these letter pairs, all of which can be found in the OED (online):

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E~F: EF, EFF, ELF, ERF
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 $F \sim E$ : FAE, FEE, FIE, FOE, FRORE, FUGUE

 $I \sim L$ : ILL

 $L \sim I$ : LI, LAI, LEI, LANAI

 $I \sim T$ : IS, IT

T~I: TAI, TUI, TOPOI

 $P \sim R$ : PAR, PER, PIR, PEER, POOR, PALAR, PASAR, PETER, PEDDER

PENNER, PEPPER, PETTER, PACE CAR

 $R \sim P$ : RAP, REP, RIP, ROOP, RUN UP

Q~O: QUO Y~X: YEX This is admittedly a paltry list which hardly calls for celebration. However, I freely admit that I have not actively searched for longer palindromes derived as described above; instead, I take satisfaction in having discovered a new type of palindrome for future generations to cherish. I speculate that an ambitious logologist with some extra time on their hands might provide readers with additional examples.

A final note: In my previous article I showed that among those palindromes derived by transposing a single letter from one edge of the word to the opposite edge are words that can form palindromes by deleting a letter at one edge. For example, the word PREFER is a derived palindrome (in the sense of my previous article), but if the P is deleted, then the palindrome REFER is obtained. The list I have presented above also contains several examples of words in which palindromes can be derived by deletion of a part of a letter, but all of these involve  $P \sim R$  or  $R \sim P$ : PAR, PER, PIR, PEER, POOR, RAP, REP, RIP and ROOP.

