PHILIP M. COHEN
Aliquippa, Pennsylvania

You and your wife are spending a quiet afternoon at the zoo. In
the monkey house, your attention is drawn to a small furry ani­
mal resembling a raccoon more than a monkey. You read the
sign attached to its cage:

MADAGASCAR LEMUR (Daubentonia Madagascariensis)

Arboreal and nocturnal in habits, it lives in the bamboo
jungles of Madagascar, feeding on vegetables and the lar­
vae of certain borers. Its feet ...

Your wife interrupts your studies at this point, plucking at your
sleeve and exasperatedly asking if you plan to spend the whole
afternoon staring at one mangy monkey. Somewhat pompously,
you turn and intone:

AY, I EYE AYE-AYE AYE.

What is the point of this anecdote? This last sentence contains
one homophone repeated six times, probably the longest such sen­
tence in the English language that makes reasonable sense. Freely
translated, it says, "Yes, I plan to look at this lemur awhile longer".

A far more suitable medium for composing homophonic senten­
ces is Wenyan, the literary language of China. It lacks such trouble­
some details as inflections, plurals, and articles -- which balk such
efforts in English. Further, it is monosyllabic and contains a rela­
tively small number of different sounds. This leads to a multiplicity
of homophones. For example, a large Chinese dictionary contains a­
bout 100 different characters pronounced with the sound "(h) shee",
written in the standard Wade Romanization system as HSI. It is
consequently possible to write perfectly idiomatic sentences, com­
prehensible to any Chinese reading them, but amusingly incompre­
hensible when read aloud by a Mandarin speaker.

More precisely, such sentences consist solely of repetitions of
the same syllable in different tones. Tones, which refer to the way
in which the voice is raised or lowered in pronouncing the syllable
in question, are denoted in the Wade Romanization system by super­
script numbers (one through four). Pronouncing "(h) shee" in dif­
ferent tones results in sound-differences as distinctive as bad, bed,
bid and bud.
With this introduction to literary Chinese, the reader can better understand the accomplishment of the noted Chinese linguist Yuen-Ren Chao, reproduced below in Chinese characters, Wade Romanization, and English translation. This poem can be found in Y.R. Chao's book Logic and Symbolic Systems (Cambridge, 1968).

**西溪嬉, 喜嬉戲。**
西溪細細習洗犀。
西溪唏唏希息戲。

**殆熙西西攜犀戲。**
犀吸溪, 戲襲熙。
惜犀嘶嘶喜襲熙。

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West Creek rhinoceros enjoys romping and playing.

Hsi Hsi meticulously practices washing the rhinoceros.

Hsi Hsi, laughing, hopes to stop playing.

Hsi Hsi every evening takes rhinoceros to play.

Rhinoceros sucks creek, playfully attacks Hsi.

Too bad rhinoceros, neighing, enjoys attacking Hsi.

Readers who wish to read longer homonymic stories by Professor Chao are referred to the 1960 Encyclopedia Britannica and the 1964 Collier's Encyclopedia, under the articles on Chinese. These stories, written using the syllables SHIH and I, respectively, discuss the discomfiture of a poet named Shih when he discovers that the ten lions have an increase of AUL, increases on annica, and it decreases on CHI, it depends.
ten lions he has carried back to his grotto have lithified, and the joy of Auntie I when the doctor cures her sickness with the pancreases of one hundred million ants. (In later editions of the Britannica, another Chao story is featured; written using the syllable CHI, it describes machine-riding chickens searching for perch.)

Because of the existence of the four different tones, purists will object that the Hsi Hsi story is not an exact analogue of the aye-aye sentence cited earlier. However, it is an easy matter to extract a pure homonymic sentence from it: "Hsi Hsi, laughing, hopes to take West Creek rhinoceros to romp and suck the creek" -- a string with twelve consecutive Hsi in it.

QUERY

Let the score of a letter be its alphabetic position \((A = 1, B = 2, \ldots)\). In the May 1971 issue, Darryl Francis exhibited a number of words in which the length of the word was equal to the score of the terminal letter \((a, o, s, a, l, e, d, l, o, n, t, s, c, r, e)\). Let us call a letter invariant if its score is equal to its position in a word; for example, the capitalized letters in AlKKe, conDuct and biCkEr are invariant. Two questions can now be formulated: (1) can any letter of the alphabet be invariant? (2) how many invariant letters can appear in a single word? Using Webster’s Second or Third as sources, tentative answers are (1) beyond T. the only letter that can be invariant is Y, in immunoelectrophoretically and electrocorticographically, and (2) ABoDE, ABoDE and ABoDinG are the only words with four or more invariant letters.