Before reading further in this article, the reader is invited to ponder the title. What is unusual about it—what property do the words have that is shared by relatively few other words?

The answer, of course, is that each word contains the five vowels A, E, I, a and U exactly once. Most people know that facetious and abstemious are the two commonest English words containing the five vowels in their natural order; fewer are aware that unoriental is the commonest English word containing the five vowels in reverse order. In Language on Vacation (Scribner’s, 1965), Dmitri Borgmann lists additional words with the vowels in natural and reverse order, and also examines the problem of finding the shortest possible word containing all five vowels (sequoia). If one admits Y as a sixth vowel, it is easy to find an English word containing all six vowels in natural order (facetiously), but the reverse problem is much harder. Perhaps the best solution is given by Alan Wachtel in the November 1968 Word Ways; he suggested Yuloidea (an obsolete name for the superfamily of millipedes) or Crypturoidea (a coined name for the family of tinamous, partridge-like South American birds).

All this activity suggests a new topic for logological research. There are 120 different ways that the five vowels A, E, I, a and U can be arranged in a word. For how many of these can English words be found? In the table below, I have listed one or more words for 104 of these arrangements. The unstarred words were found in Webster’s Collegiate Dictionary (fifth or seventh edition); the starred words were obtained from a variety of sources, principally Webster’s Unabridged Dictionary (third edition), Walker’s Rhyming Dictionary of the English Language, Dolby and Resnikoff’s The English Word Speculum, and Levine’s List of Words Containing No Repeated Letters (I am indebted to Dmitri Borgmann for searching the last-named reference work). I have not included words ordinarily capitalized.

Can any reader of Word Ways come up with suggestions for one or more of the remaining patterns?

WORD WAYS
AEIOU facetious, abstemious, arsenious
AEIOU praseodymium, pandemonium
AEOUI haemofuscin•
AEUIO maleruption•
AEOEI aneuploid•
AIEOU ambidextrous, glaireous, calciferous
AIEUO antinuteutron
AIOEU carillonneur
AIOUE grandiloquent, anxiousness
AIUEO antinucleon
AIUOE radiculose•
AOEIU apothecium, androccium
AOEUI allotelluric•
AOIEU amortisseur•
AOUIE accoutering
AOUIE tambourine, favourite
AUEIO aculeiform•
AUEOI aurocomycin, aureolin•
AUEIOE albuminose, auctioned, cauliflower
AUOEI autosexing
AUOIE staurolite, glauconite, authorize
EAIOU precarious, behaviour, tenacious, nefarious
EAIOU crematorium, pelargonium
EAOUI revouching•, beclamouring•
EAUIO exhaustion
EAUOI tentaculoid•, keraunoid•
EIAOU pedimansous•
EIAUO semi-auto•
EIOAU plesiosaur
EIOUA ventriloqual
EIUOA gesticulatory
EIAUO semicupola•
EOAUI endocardium
EOAUII serosalbumin•
EOIAU neostriatum•
EOIUA dentolinguage
EOUAII expostulating, encouraging
EOUAI dentosurgical
EUAIO education, regulation, equation, persuasion, deputation
EUOID euharmonic•
EUIAO denunciatory, repudiator

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EUROA equinoctial, equivocal
EUOAIE pseudoclassic, neuropathic
EUOIAI sequoia, euphoria, pneumonia
IAEOUI intravenous, micaceous
IAEIOU citharoedus
IAOEIU dialogue, miaoued
IAUEOI disaccustomed
IAUOIE tricephalous
IAUOIE dieosophagus
IAUOIE intercolumnar, interocular
IEUOAI interpulmonary
IOAUEI lithofracteur
IOAUEI isopaque
IOEAEI micrometallurgy, hippocentaur
IOEAUE incommensurably, isopleural
IOUAEI inoculate, discourage, misconjugate, importunate
IOUEAI isonuclear
IUAEIO linguiform
IUAEIO fistulatome
IEAOEI vituperator
IUEOAI insupportable
IUOEAI immunotherapy
OAEIUI hypotrachelium
OAUEI
OAUEI odalisque, portraiture, contrafissure
OAUEI novaculite, consanguine
OEAIUI overpainful
OEAIUI overvaluing, overhauling
OEAIUI proventricular
OEAIUII conceptualism, postneuralgic
OEUIIAI obsequial, nonpecuniary
OIAEUI popliteae
OIAUEI foliature, ovi capsule
OIEAUU moineau
OIEUAI ovi cellular
OUIAEI continuable, contributable

WORD WAYS
Many thanks to Dmitri A. Borgmann and Darryl H. Francis for adding numerous words to this list.