

CONSONANT-CHARACTERIZED WORDS

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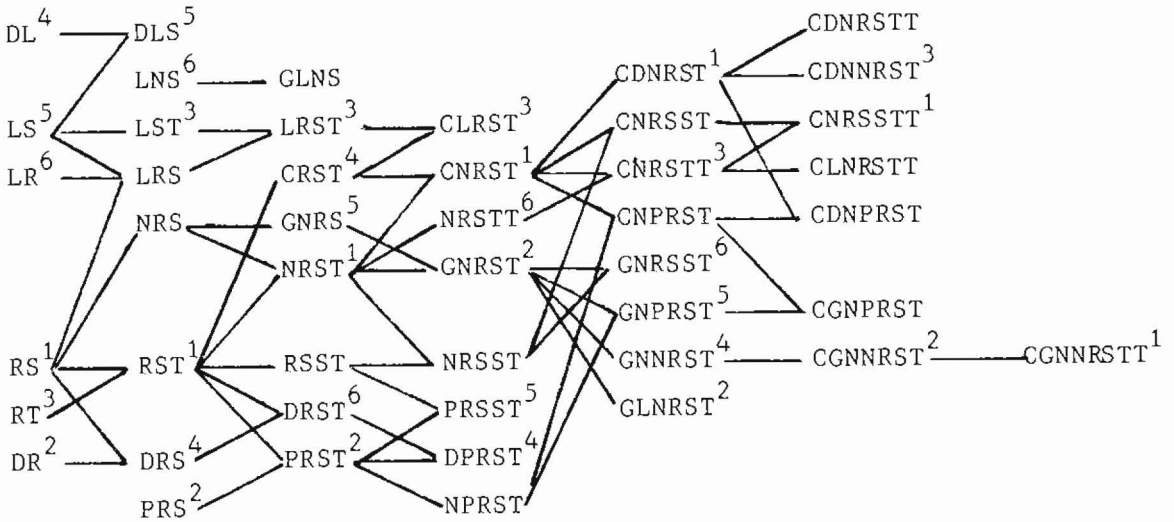
At the 1981 convention of the National Puzzlers' League, Harry W. Hazard presented a word contest called "Shrdlu". As a part of this contest, a list of words was given to the participants, each word having exactly five consonants. The objective was to find, for each problem word, another word with the same consonants in a different order; for example, one might replace *shrdlu* (if it were a word) with *shoulder*. Inflected forms, for example *holders*, were not acceptable. A variation on this contest is reproduced later in this article.

As a result of this contest, I wondered what consonant groups are the most prolific. To find out, I merged the Official Scrabble Players Dictionary with a list of compact (unhyphenated) entries in the Webster Vest Pocket Dictionary more than eight letters long, including inflected forms. I sorted the words according to their consonants, allowing the vowels AEIOUY to be used as often as desired; thus, the consonant group PR included such words as *RuPee*, *PaRe*, *PuRee* and *RaP*. The best groups are summarized here:

- 1 consonant: R 52, L 37, N 37, S 34, T 34, D 32, B 27, H 26, P 26, M 25, ..., Q 7
- 2 consonants: RS 101, DR 74, RT 74, DL 71, LS 71, LR 68, MN 68, NS 66, PS 65, ST 62
- 3 consonants: RST 150, PRS 115, LST 109, DRS 102, DLS 101, LNS 96, NST 96, NRS 94, LRS 92, LPS 89
- 4 consonants: NRST 150, PRST 120, LRST 112, CRST 107, GNRS 107, DRST 104, MRST 101, RSST 99, DNRS 94, GLNS 94
- 5 consonants: CNRST 103, GNRST 98, CLRST 83, DPRST 79, PRSST 78, NRSTT 76, NRSST 69, MNRST 68, NPRST 67, LPRST 63
- 6 consonants: CDNRST 37, GLNRST 34, CNRSTT 30, GNNRST 28, GNPRT 28, GNRSST 28, CNRSST 27, GMNRST 27, CNPRST 26, GNRRST 26, NPRSST 26
- 7 consonants: CNRSSTT 13, CGNNRST 12, BCLNRST 11, CDNNRST 11, CDNPRST 10, CDNRSTT 10, CGNPRST 10, CHNSSTT 10, CLNRSTT 10
- 8 consonants: CGNNRSTT 6, CNPRRSTT 6, CDMNNRST 5, DMNNRSTT 5, GMNRSSTT 5, MNRSSST 5
- 9 consonants: CNPRRSSTT 3, DMNNRSSTT 3, MNNPRSSTT 3

Ten consonants is barely interesting, with a few pairs: *contentednesses*, *indistinctness*; *procrastinations*, *transcriptions*; *farsightedness*, *foresightedness*; *faithlessnesses*, *shiftlessness*; *harmlessnesses*, *humorlessnesses*; *motionlessnesses*, *simultaneousnesses*; *impressivenesses*, *permissivenesses*. Eleven consonants has only the plural of the third pair above, plus some pairs based on variant spellings.

The following consonant group network, constructed by the editor, shows how the best consonant groups are interrelated; the exponents indicate the rank of the consonant group among those of the same size.



Now that we have looked at the most productive letter combinations, what about the least productive ones? For three or more consonants, there will be many groups with no examples, especially in a lexicon as small as the one used here. For two consonants, there are seven missing entries: HQ, JQ, QQ, QV, QW, XX and ZZ. Five of these can be filled from N1, using Darryl Francis's "Monoconsonantal Words" in the February 1979 **Word Ways** and Edward Wolpow's "Biconsonantal Words" in the August 1979 issue: JiQui, QuaeQuae, eVeQue, QuaW and ZooZoo. For the other two, Philip Cohen supplies XiX (Official Standard Names Gazetteer for Guatemala) from his unpublished trigram list, and a quick search of the OED provides HaQue (a variant of "hake"). You be the judge of the last-place winner.

In passing, there are twelve words in the "no consonant" category: aa, ae, ai, ay, aye, eau, oe, ya, yay, ye, yea and you.

The puzzle presented below is intended as a no-time-limit exercise in which the goal is to find as many words as possible with the same consonants as the problem word given. The non-inflection and reordering rules imposed by Harry Hazard are waived, but the reader should at least avoid forms of the same word (e.g., coachmen for the fourth one). The number following indicates the number of words found, but be warned - many are uncommon.

- | | | |
|---------------|------------------|-----------------|
| 1. shopper 5 | 7. carbonic 1 | 13. galumph 1 |
| 2. lackwit1 | 8. walnuts 1 | 14. pharmacy 1 |
| 3. wolfish 1 | 9. limerick 1 | 15. storing 61 |
| 4. coachman 1 | 10. mannered 3 | 16. cerebriic 1 |
| 5. thonged 2 | 11. economics 2 | 17. unhitch 1 |
| 6. lectern 16 | 12. unnameable 1 | 18. prepack 1 |

19. hovelled 1 21. pennant 1 22. zenithal
20. nominally 1

Answers can be found in Answers and Solutions at the end of the issue.

Appendix

For the record, the sets of words found for the most prolific consonant groups are listed below.

R: aerie, aero, aery, air, airy, ar, are, area, areae, aria, aura, aurae, aurei, ear, eerie, eery, er, era, ere, euro, eyer, eyra, eyre, eyrie, eyry, ire, oar, oorie, or, ora, ore, our, ourie, oyer, raia, ray, raya, re, ree, rei, roe, roue, rue, rya, rye, uraei, urea, yar, yare, year, yore, your

RS: aeries, airs, areas, ares, arias, ariose, ariosi, arioso, arise, arose, arouse, ars, arse, auras, aures, aureus, auris, aurous, ears, easier, eras, erase, eros, erose, ers, euros, eyers, eyesore, eyras, eyres, eyries, ires, iris, oars, ores, ors, osar, osier, ours, oyers, raias, raise, ras, rase, rayas, rays, rees, reis, res, re-say, reseau, resee, reuse, rise, roes, roose, rose, rosy, roues, rouse, rues, ruse, ryas, ryes, saree, sari, saury, sayer, sear, seer, ser, sera, serai, sere, sieur, sir, sire, siree, soar, soiree, sora, sore, sori, souari, sour, sri, suer, sura, sure, uraeus, urase, ureas, urease, ursa, ursae, urus, user, usury, years, yores, yours

RST: aerates, aeriect, aiest, ariect, airts, aorist, aortas, aretes, arista, aristae, arts, aster, asteria, astir, astray, atresia, aurist, austere, easter, eateries, eaters, eeriect, erst, ester, estray, estuary, iritis, oaters, orates, orts, ostiary, ouster, outers, outraise, outsoar, oyster, rates, ratios, ratos, rats, reatas, reest, resear, reset, rest, reties, rets, retuse, riatas, riotous, riots, rites, roast, roost, roots, roseate, roset, rotas, rotes, rotos, rots, roust, routes, routs, rust, rusty, ruts, ryots, satara, satire, satori, satyr, saujtoir, sautoire, seater, seriate, sitar, sootier, sort, sortie, souter, stair, star, stare, stayer, steer, stere, stereo, stir, store, storey, story, stour, stoure, stourie, stoury, stray, stria, striae, stroy, suitor, surety, sutra, suture, tares, taros, tars, tarsi, tarsia, tears, teaser, terais, terse, tiaras, tiers, tires, tiros, toras, tores, tories, toros, torose, torous, tors, torse, torsi, torso, torus, tours, toyers, trays, trees, treys, tries, trios, triose, trois, troys, trues, tsar, tuyeres, tuyers, tyres, tyros, urates, uterus, yarest, yeastier, yester, yurts

NRST: aerations, aeronauts, anetri, antiars, antisera, antres, aroints, aroynts, arsenate, arsenite, artisan, astern, atoners, earnest, earstone, eastern, enroots, enters, entires, entrees, entries, estrin, estrone, esurient, eternise, eyestrain, inertias, inerts, insert, instar, intarsia, inters, intros, ironist, nastier, natures, nearest, nitrous, norites, notaries, noters, notorious, nutrias, oestrin, oestrone, oneriest, orations, orients, outruns, outsnore, rainiest, rainouts, rants, ratanies, ratans, ratines, rations, ratoons.

rentes, rents, resent, resinate, resonate, retains, retenes, retinas, retinues, retsina, retunes, reunites, routines, ruins, runouts, runts, sanatoria, sanitaria, sanitary, santir, santour, saunter, sauterne, seatrain, senator, seniority, seniorita, sentry, serenata, serenate, serenity, serotine, sinter, snootier, snort, snoutier, sonority, stainer, stearin, stearine, stern, sterna, stoner, stonier, strain, styrene, tarns, taurines, teeners, teensier, tenors, tenours, tensor, tensor, tenures, ternes, terns, toners, tonsure, torsion, tourneys, trainees, trains, trans, treason, trienes, triens, trines, triunes, tronas, trones, tsarina, tuners, tureens, turns, tyrosine, uniter, unrest, unroots, uranites, urinates, yestern, yestreen

CNRST: aeronautics, ancestor, ancestry, ascertain, auctioneers, canister, canters, cantors, carotenes, carotins, cartons, cartoons, caryotins, catenaries, caterans, ceintures, centares, centauries, centaurs, centers, centiares, centres, centuries, ceratins, cistern, cisterna, cisternae, cistrion, citrines, citrins, citrons, cointers, consort, construe, contours, corantoes, corantos, cornets, corniest, cornutos, courantoes, courantos, courants, craniates, cratons, creatines, creatins, creations, cretins, crinites, crotons, croutons, curtains, enactors, encrust, enticers, erections, inciters, incrust, insecurity, iterances, narcissist, nectaries, nectars, neoterics, neuritics, neurotics, octonaries, octoroons, outrances, outscorn, raincoats, reactions, reascent, recants, recounts, recusant, reenacts, reinrites, ructions, sanctuary, sarcenet, scanter, scantier, scrutiny, secretin, secretion, sectarian, sincerity, tanrecks, tenrecks, trances, trounces, truancies, uncrates, uncreates

CDNRST: acrodonts, ascertained, centroids, considerate, consorted, construed, coordinates, coresident, countersued, countryside, creodonts, decanters, decenters, decentres, decorations, desecration, dicentras, dictionaries, directions, discretion, doctrines, encrusted, incrust, indicators, indicters, indictors, indiscreet, inductors, intercedes, introduces, iridescent, outscorned, rancidities, reductions, reinducts, underacts, undercuts

CNRSST: astronautics, cartoonists, castrations, centrists, contrasts, countersuits, instructs, intersects, interstices, resuscitation, transacts, transects, trisections

CGNRSST: contrasting, instructing, intersecting, transacting, non-strategic, transecting

CNRRSST: counterparts, interceptors, practitioners, procrastinate, retrospection, transcript

CNRRSSTT: procrastinates, retrospections, transcripts

DMNRSSTT: administrants, administrations, demonstrations

MNPRSSTT: intemperateness, presentiments, presentments