Since earliest times, speakers of English, true to the Germanic heritage of their language, have created thousands of new words by joining together two (or more) independent morphemes to form compounds. In the November 1978 Word Ways, Dmitri Borgmann's "Word Relationships" explored the various interactions between the elements in noun-noun compounds, and Maxey Brooke's "A Complex of Compounds" illuminated the complex grammar of compound words by constructing a four-by-four matrix (Noun-Adjective-Adverb-Verb) that yielded sixteen different combinations.

It has occasionally been noted that English words combine in such ingenious ways that the part of speech of a compound may be different from that of either of its components. This logologically happy state of affairs raises the following question: can the third dimension of the matrix be filled out so that each of the sixteen types that Brooke posits functions as a noun, adjective, adverb, and verb, yielding a total of sixty-four entries? On the next page is my response to that burning question. In the matrix, I have tried to use only recognizable English word parts and to avoid repetition and grammatical suffixes, such as -ly for adverbs. Readers are encouraged to offer any improvements.

Most of the items are self-explanatory, but some require a brief exegesis. Weekend \((n + n = \text{adv})\) and sunrise \((n + v = \text{adv})\) act adverbially in sentences of the type "Each weekend (or sunrise) he would rise to chop wood." Overmatched \((v + v = \text{adv})\) and worn out \((v + \text{adv} = \text{adv})\) also act adverbially in sentences such as "He left the ring overmatched and worn out." Similarly, punchdrunk \((v + \text{adj} = \text{adv})\) is an adverb in the sentence "He left the ring punchdrunk." High-low \((\text{adj} + \text{adj} = v)\) and fast forward \((\text{adv} + \text{adv} = v)\) are new but well-entrenched compounds in the Language: when one leads first the high and then the low card in Bridge in a two-card suit, he high-lows, and when one presses the "cue" button on a tape recorder or video tape deck, he fast forwards. Atone \((\text{adv} + \text{adj} = v)\) derives from the words "at" and "one," starboard \((v + n = \text{adv})\) from the Old English words meaning "steering side," and willy-nilly \((v + v = \text{adv})\) from the verbal construction "will I, nil I?" (and ultimately from the Latin "volo nolo"). Finally, Webster's does list wherefore \((\text{adv} + \text{adv} = n)\) as a noun, a use that is preserved in the expression "the whys and wherefores."
I do not pretend that the boxes above cover all the possible grammatical alliances for compounds. Additional combinations include *he-man* (pro + n = n), *himself* (pro + n = pro), *whoever* (pro + adv = pro), *each other* (adj + n = pro), *into* (adv + adv = prep), *whenever* (adv + adv = conj), and the combinations of three or more words from *good-for-nothing* to Joseph Farris's exquisite *having-a-heart-to-heart-talk-with-your-daughter-about-sex-and-finding-she-knows-more-than-you-do-phobia* (Colloquy, November 1978).