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Stability and Change

Over the past 15 years it has been emerging with increasing clarity and force that the communication of information is as centrally important in nature as it is between men.

When a virus invades a cell it introduces a packet of chemically coded genetic information, so unambiguous and dictatorial that it may completely reorganize the previous contents of the cell in strict accordance with the imported message. When the cells of an organism divide, the continuing genetic integrity of the whole depends upon the essentially errorless transmission of the information coded onto the DNA molecules. The capacity of an organism to recognize itself depends upon immunological messages which we do not now understand in any detail, but which are certainly both intricate and precise.

Over the very long haul nature requires, for the evolutionary process, that infrequent slips occur. The mutated messages almost always turn out to contain useless misspellings which nature wisely discards. Only once in a very great while is a good new word formed.

In his lovely book, *The Ideas of Biology*, John Tyler Bonner has suggested that the reason why nature utilizes the nucleic acids in the storing and transmission of information is that they are chemically stable and hence cause "relatively few errors or changes."

Man seems to be much more careless about preserving the integrity of his inter-communication. Lawyers, especially in their terms of art, and scientists, in their use of a precise and well-defined vocabulary, appear to be the chief guardians of verbal and syntactical stability. For all others, the modern idea seems to be that "language is a living, growing, thing"; and growth in all directions, including downwards toward the low level of the street, apparently seems entirely acceptable to many.

One must grant that language is alive and evolving. Human words should change occasionally, but I think that at the best these mutations are the result of the radiant effect of poetic imagination or the responses to new necessities. It does seem reasonable to hope that new words should not be accredited merely because they are used by substantial numbers of careless, lazy, or ignorant persons.

Indeed, should we not protest in general against current trends towards more and more sloppiness with words and with grammar?

I want to make a plea for the older editions of Fowler's *English Usage*; for Strunk's *The Elements of Style*; for the continued use of the subjunctive mood; for the universal use of a comma before the final "and" in a series of listed items; and for all those similar rules of established grammatical virtue which have of late been scorned by so many.

I would enjoy adding comments about the newly revised Webster. But *Science* must be sent through the mail.—WARREN WEAVER, *Alfred P. Sloan Foundation, Rockefeller Center, New York.*