

taken on the basis of fragmentary advances in diagnosing and treating phenylketonuria. As second thoughts began to come in, the Children's Bureau of the Department of Health, Education, and Welfare found it wise to order a 5-year evaluation which, among other things, would ascertain whether the dietary correction of phenylketonuria is really efficacious.

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## Degrees and Titles

A recent letter by Berarde ("Rank discrimination," 30 July, p. 499) objects to not addressing Ph.D.'s as Dr.

It is my impression that there are two entirely different types of titles in the English language—true titles and occupational titles. Examples of the first type are Hon., Lord, Mr., Esq.; of the second type, Coach, Sen., Officer, Gov., Lt. The title Dr. can be either. That the distinction between the two types is quite sharp can be seen by considering how they are used: True titles can never be used by themselves; only press-photographers yell, "Hey Duke, how about one more picture?" and very few people would say; "Will this cut be all right, Mrs.?" Unless the form of address is ceremonial, such as "Madam" or "Your Excellency," one must always add the name: "Take a letter, Miss Green." On the other hand, it is quite proper to address somebody by occupational title without the name: "Officer, I wasn't speeding!" Indeed, this form is often used in an impersonal way to address people who are somewhat faceless and interchangeable. One way to indicate respect is to use an occupational title as if it were a true title and add the name to it. Furthermore, one never refers to oneself by true title, particularly if it carries the connotation of distinction, but it certainly is proper to use one's occupational title; "I am the Hon. Joe Gray" will never do, but there is nothing wrong with "This is Senator Gray calling."

In Latin, "doctor" means "teacher." As a true title it designates those upon whom it was bestowed for having taught the community of scholars something, that is, for having made a significant contribution to the body of knowledge in a field of science or humanities (usually in a dissertation).

It was first granted in the 13th century to theologians and lawyers. Later the word acquired its occupational meaning, designating those engaged in the healing professions. This came about because the only educated person the illiterate man of the street—who didn't know better but wanted to be respectful—ever came in contact with was the healer.

Thus a veterinarian, or a chiropractist, or an M.D., or an optometrist, or a dentist, or a naturopath, or a naprapath, or a podiatrist, or a chiropractor, or an osteopath is addressed by occupational title alone: "Good morning, Doctor," and he introduces and signs himself as Dr. (The foregoing list was compiled from the Chicago classified telephone directory by looking up "Doctor" in the index.) This has nothing to do with having or not having a doctor's degree, although in this country, where academic practice imitates popular usage, just about all these practitioners have one; in Britain or the Scandinavian countries, for example, where the original sense of the degree is preserved, they don't. (Some British physicians do get an M.D., but this is comparable to obtaining a Ph.D. on top of a medical degree here.)

On the other hand, it is not good form in English for a Ph.D. or the holder of an honorary degree to refer to himself as Dr.—though in some fields it is customary to put an abbreviation of the degree after the name—because in his case it is a true title, indeed one denoting distinction. As an extension of this idea some even feel that Ph.D.'s should not address or refer to one another by title. While Benjamin Franklin was addressed as "Dr. Franklin," and while this certainly is proper—if maybe somewhat formal—usage, I think titles denoting distinction are gradually disappearing. Being addressed as Mr. puts one into rather good company: the *Congressional Record* refers to senators as Mr., and Gen. Eisenhower would have never become Mr. Eisenhower if it weren't for his promotion at the polls.

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The title "Dr." is much overused in our society and often does not in fact represent the level and type of academic or professional training that many people associate with it. As Shaw wrote in 1903 in *Man and Superman*,

"Titles distinguish the mediocre, embarrass the superior, and are disgraced by the inferior." Degrees are clearly not becoming obsolete. Nevertheless, it is time for a reexamination of the effects that titles—that is, the symbols, as distinguished from the referents—are having on social behavior.

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## Neologismification

Although I am willing to admit my naïveté to anyone, I nevertheless resent being outclassed in wordly wisdom by analytical procedures, diets, equipment, and studies on ciliary movement. These have been described as "sophisticated," and this pestiferous weed of a word is now rapidly smothering such words as *modern*, *complicated*, *novel*, *advanced*, and *exact*. Thus J. F. Crow in his review of two books (18 June, p. 1579) takes an author to task for neologisms, and two sentences below he writes of "some possibilities for more sophisticated diets that could support larger populations." The use of *sophisticated* in this context is certainly a neologism by dictionary definition. Further on, Crow writes: "I enjoyed J. B. S. Haldane's recipe for happiness in an increasingly sophisticated technological society. . . ." Does this mean increasing artificiality of the people, or a growing physical complexity of the artificial environment?

In the same issue Kaye Kilburn and John Salzano ("Respiratory cilia," p. 1618) conclude: "More sophisticated studies are needed to understand how mammalian cilia move." Are these further studies, more thorough studies, or studies by less ingenuous people? I have no quarrel with either Crow or Kilburn and Salzano; their examples, no worse than most, are handiest.

We seem to be caught up in a fashion of using pompous words, strained from their original meaning. Happily the use of the word *posture* to describe a diplomatic policy or a bias on the part of a government or a portion of it ("Congress has taken a belligerent posture toward increased funding of research and development"; "Britain has adopted a neutral posture") seems to be disappearing. *Community* to describe a profession seems to be almost as weedy as *sophistication*. Or in other



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words the scientific community has adopted a benignant posture toward the escalation of neologisms with concomitant minimization of sophistication in their utilization.

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### Working Hypotheses in Psychotherapy

I agree with N. H. Eisen in his letter concerning Chamberlin's method of "multiple working hypotheses" as applied to psychotherapy (16 July, p. 246) that many psychotherapists are coming to frown on rigid adherence to any single "school of thought," that is, working hypothesis. However, what psychotherapists do in practicing the eclectic methods is not identical with applying on a tentative basis, with the same patient, now this and then another hypothetical viewpoint. Rather, they use a single hypothesis based on a combination and fusion into one unified working hypothesis of whatever they find correct in the approaches of the various schools. Such a hypothesis bears the marks of the personality of the therapist and makes it possible to emphasize once this, and another time another, element of this unified eclectic hypothesis according to the individual case. In this again I agree with Eisen.

However, one of the main elements of successful treatment is to give the patient a unified working hypothesis for dealing with external and internal reality. It is the patient who presents us, unfortunately, with multiple working hypotheses which interfere with his efficiency and happiness. The patient uses simultaneously the magic and the rational hypotheses, the system of projection and the system of reality testing, the infantile and the grown-up code of morals, and so on. It is the task of the therapist to use all methods at his disposal to replace this confusion by a unified working hypothesis. One of the necessary methods involves giving the patient a living example of an unconfused mind. This is not all theory; I have actually seen bad results from introducing, for example, the physiological hypotheses in the case of a psychologically oriented patient, and sometimes also from combining behavior therapy with psychoanalytically oriented therapy.

Eisen suggests the application of the method of multiple working hypotheses to psychodiagnosis. In contrast to therapy, I see no objection to this and have seen advantages from the application of neurologic viewpoints simultaneously with psychological.

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### Occurrence of Cilia

Kilburn and Salzano (18 June, p. 1618), in reporting a conference on cilia, began with the words: "Cilia are found in all animal groups except Nematoda. . . ." If this is correct, I have been teaching an error in introductory zoology courses for many years. I recognize the Onychophora as a distinct phylum rather than as a class of Arthropoda and teach that cilia do not occur in the Arthropoda, which, in terms of number of species, constitute some four-fifths of the animal kingdom. If I am wrong, I would appreciate references to the occurrence of cilia in insects, crustaceans, arachnids, chilopods, or diplopods.

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The statement "Cilia are found in all animal groups except Nematoda . . ." was a summary of Table 1 in M. A. Sleigh, *The Biology of Cilia and Flagella* (Macmillan, New York, 1962). The references for this table were L. H. Hyman, *The Invertebrates* (McGraw-Hill, New York, 1959), and P. P. Grasse, *Traité de Zoologie* (Masson, Paris, 1948–1961). Specifically, to answer Cole's questions: in Onychophora, nephridia and reproductive systems have cilia, while in Insecta, cilia are found in sensory organs and gametes.

A substantial correction to the same statement was suggested to us by Donald E. Giles. He calls attention to a study by H. G. Browne and A. B. Chowdbury [*J. Parasitol.* **45**, 241 (1959)] which showed cilia in the intestine of the nematode dog roundworm, *Ancylostoma caninum*.

Thus, the opening statement should be amended to "Cilia are found in all animal phyla." We stand corrected and informed.

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