

THE DORSAL SCALE ROWS OF SNAKES

IN these days when so much attention is being given to the variations and minute characters of animals it seems remarkable that such an important trait as the number of dorsal scale rows in the snakes should receive careless treatment. This character is given considerable weight in delineating species and deserves careful attention. From the descriptions one could only conclude that each species has a rather definite number, 17, 19 or 21, as the case may be, and that the variations are abrupt. The facts are far from being as simple as this. As a rule the number of scale rows decreases posteriorly, and there is often a decrease anteriorly, so that the maximum number of rows (the number now given in descriptions) may either extend from the head to beyond the middle of the body, or be restricted to a longer or shorter distance on the middle, sometimes only for the length of two or three scales. Furthermore, the species that exhibit a variation of two or more entire rows on the anterior part of the body also show the intermediate stages in which the extra rows are present on the middle of the body only, which leaves no doubt that the variations in this character are not abrupt but gradual.

From these facts it is evident that the average number of rows characteristic of a species in any region can only be expressed by a formula that gives the number of rows on the different parts of the body. It is not enough to say that a species has a maximum of 21 rows; one should at least know whether the number is 21 for the greater part of the length or only on the middle of the body. Quite evidently a form with an average of 21-19-17 scale rows, which means 21 to beyond the middle and 19 and then 17 posteriorly, is not the same as one in which the scale formula averages 19-21-19-17, any more than one with 21-19-17 rows is the same as one with 19-17 rows, although such variations are thrown together under the present way of recording the rows.

It is a simple matter to count the number of rows on the different parts of the body and this may be conveniently expressed by the

formula given above. At least this much should be done by the herpetologist, if not for the systematist then for the student of geographic variation, for only with this data can one determine the variation in this character and the type in each locality.

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THE QUESTION OF TEXT-BOOKS IN COMPOSITION

WHEN a Harvard man thinks of books on English composition he thinks of Professor Wendell, and before him Professor Hill, and before him the dark. Professor Hill's books, though immensely comforting and instructive, ought to be considered as reference books rather than as texts. Therefore, in the winter of 1890-91, when Professor Wendell found himself confronted with the problem of lecturing on composition to a Lowell Institute audience, he looked about him to see what had already been done. He was surprised to find that nothing then in print quite served the turn. All these earlier fellows were too technical and too much absorbed in detail. They laid down hard and fast rules. They had no patience with the growing tendency to say, "It is me." Students could scarcely tolerate their etymology, their prosody, their similes and their metaphors. Professor Wendell felt already, we may assume, something of his present fine impatience with the details of scholarship; he was already, on his academic side, professionally unconventional. Here, then, was a man peculiarly gifted by nature for the work of cleaning house in rhetoric. There resulted the Lowell lectures, and, in time, the "English Composition."

Since then nobody, I believe, has dared to depart from Professor Wendell's ways. We have had composition books written by nearly everybody, for nearly every important institution and academic grade; but none in any essential respect different from the first. Latterly they become more full of illustrative material and exercises. They present examples of faulty and correct writing from

every modern source, beginning with the newspapers and ending with Colonel Bryan and Sarah Orne Jewett. A few have made some additions to the original theory. They undertake to show a logical subdivision of the plans on which paragraphs may be built up. Beyond this there is little difference. The principles of composition, no matter who expounds them, still bear the hall-mark of their origin. They are all dilute and popular. They all present vague, sweeping precepts which relate to criticism, and not at all to the art of writing. These are so abstract that special exercises must be invented to illustrate them, and so lacking in specific helpfulness that any attempt seriously to fix the student's attention upon them quickly kills his desire to write. Between students who find them incomprehensible and those who think them obvious and silly, there is only a small middle class. It consists of those adapted by nature to take orders and obey with mechanical faithfulness.

Some ten years ago these words might properly have been regarded as destructive criticism. At present they can not, for there is little now left to destroy. Few successful teachers of composition now pay much attention to text-book work. Individual conferences with students have partly replaced it. These, however, are now taken for granted, and we no longer write to the papers about them. A newer device, and one even more welcome, because it occupies class-room hours, is "oral composition." Though burdened at the start with the most unattractive name that could have been chosen, "oral composition" has been an enormous success. More than one high-school teacher of English has seen it double the interest in his work. No wonder. It gives the student, what the text-book never furnished, a rational ideal and an intelligible standard by which to judge success.

The principles of English composition, while they lasted, were hardest on us teachers. We, at least, were forced to take them seriously. The burden of illustrating these mechanical rules fell on us. Now a great musician, one

imagines, may go through his five-finger exercises, or what not, and by and by assimilate his technique and perform with the regulated freedom of genius. Whether it can be so with a writer will perhaps never be known. Certainly it can not be proved by us teachers of composition, for none of us was a genius to begin with. We arrive at a state of mechanical perfection in technique, and there we stick. I look back, in my own case, upon the ruin of a promising and individual, though not a solid or brilliant, style. Now-a-days I write with the mechanical regularity of one pumping into a bucket. I have been a faithful disciple of Professor Wendell, and I can now write a paragraph as "theoretically perfect in mass" as anything to be found in the *Nation*. I can write a paragraph explaining what a paragraph should be, and at the same time explaining that the paragraph I am writing illustrates what a paragraph should be; and I can bring both ideas together at the end into the same summary! But suppose me very angry, or very serious about my subject, so much disturbed, in fact, that I was beside myself, and forgot the principles of English composition. Could I then write any paragraph at all? Probably not. No more than a bricklayer could lay a brick without his trowel. Almost the only thing of which I am any longer capable is what Professor Wendell calls "a piece of style."

There should be comfort in the fact that I am not alone. Most of the brotherhood of English teachers is in the same state. If a man has taught composition any time these twenty years, he is marked. You recognize his method as far away as you can read his work. To conclude a paragraph with a summary is for him as unavoidable as to expel breath after inhaling. His style crawls over the page like an inch-worm, constantly measuring its heels up to its chin. I think of these things, and I wish I were upon the hill of Basan, to outroar the horned herd!

The possibility of slighting the text-book work is, of course, entirely agreeable to many teachers of English. They find it in keeping with modern methods in education. School

is let out, there are to be no more tasks, nothing but playing cross-tag with the boys in the yard and developing the "class consciousness." There is among us, as in other subjects, the type of man properly called an "educator." He "draws out" his pupils. Always animated, always with the last word from the *Scientific American* or the *Review of Reviews*, he makes his class-hour a little less interesting than the moving pictures, but more so than a star lecture at the Y. M. C. A. Such a man likes to see bright faces about him. He is accustomed to have his hour looked forward to with pleasure, his classes begging to be allowed to write ten pages, while he sternly holds out for five. His work is "inspirational"; to make it succeed, he must be in the best of physical condition. So he saves himself. He lets his students criticize their own compositions and those of one another. For himself, he resolves to read themes less, and to play golf more. Such a man is merely an accident in an English classroom. If his occupation were adapted to his essence, we should find him preaching on politics and current problems in a modern evangelistic city church. But, as he stands, his students look up to him as a polished gentleman and man of the world. From him they draw culture in the vaguer sense, a dissemination of sweetness and light.

Meanwhile, there is still the teacher. He is to be found in all subjects, even English composition. He hates inexactness and vagueness, he loves to enforce a clear intellectual distinction, he has great confidence in the educational value of abstract thought. On these accounts he is very unhappy, at the moment, in the English class room. The birch was taken away from him long ago, and now they have taken the book. His conference work goes well enough, being confined mostly to punctuation, grammar and the split infinitive; but in the class he finds nothing to do that he considers worth while. His textbook distresses him with its lack of content. How can he hold up his head before his classes as a man of intelligence when he is obliged to spend his hours with them in dis-

cussing principles which would be evident to the child of ten? He was better off in the dark ages, before they made the whole business so simple. Then, at least, there was material for mental exercise.

It is this style of man who does the real work of the schools, that for which parents suppose they are paying. He is less conspicuous than the "educator," for teaching is a curious business. It is the only profession in which men appear to succeed best by neglecting their work and doing other things. At the same time, as it is not now a question of promotion or salary, we may admit that this man of solid, thoughtful mind is the only real teacher. And the question comes up: What are we to do to keep him happy in English composition?

If we assume that no college teacher wants to do his plain duty, and teach spelling and grammar, there are still two other directions in which the outlook for new text-books is more or less hopeful. The first is logic. That subject has been for some time neglected, and now tends to seem a part of "the good old times." College teachers have begun to ask themselves whether they can not introduce some training in logical principles into the English course; though at the outset they are somewhat staggered at the memory of "Barbara, Celarent." Some day there will be a shaking among those dry bones, and then we shall have a text-book for the teacher.

The second direction from which light may come is the artistic treatment of prose. The artistic problem behind the student's theme, if he can be made to see it, will interest him. It will interest also the "educator" and the teacher. If we could find a man among us who is by nature an artist, rather than a critic, he might contrive to tell us how to write. This sort of book is the hardest of all to produce, and the least likely to appear; but, if one could make it, it would be worth as much as all that has yet been written.

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