No felt sole?
No sales on hip boots or knee boots (winter sale?)

STEPHAN & BRADY

INCORPORATED

July 31, 1997

Datus C. Proper
1085 Hamilton Rd
Belgrade, MT 59714

Dear Mr. Proper:

I enjoyed our conversation the other day and hope that we can work together. It's always interesting to talk with someone who knows what they're talking about when it comes to footwear, especially someone who knows LaCrosse Boots. I'm proud to be working with LaCrosse because I think they take the quality of their boots seriously. One of the ways that manifests itself is by listening to customers. In fact, the very day I talked to you, I attended an awards/recognition ceremony along a restored creek in south central Wisconsin attended by numerous dignataries including a couple of fellows from the Wisconsin Department of Natural Resources. The guys from the DNR and I quickly arrived at a discussion about waders (one said he'd been through about 50 pairs of waders since he joined the department), and he said he was a size 11. It was obvious he was over six feet tall. (Well short of a 37-inch inseam, however). So I asked him if he has noticed LaCrosse hippers being shorter than they used to be and he agreed that they were and he also agreed that the tops were wider and did not stand up as well. I am preparing a note I'll send to LaCrosse in which I'll tell them of your comments — maybe LaCrosse should consider adding a "tall" to the line.

Enclosed with this package, you'll find the 1997 LaCrosse catalog for you to peruse. Note that there are no prices -- this is not a consumer catalog, but a dealer piece. Check out some of our new products — LaCrosse is now making the warmest, thinnest boots available in its new 100 series. LaCrosse is also offering some excellent camo rain gear now in addition to its extensive line of footwear.

In our conversation earlier this week, we tentatively agreed that LaCrosse Footwear would pay you $350 and two pairs of boots free in exchange for the right to use your words in *Pheasants of The Mind* about LaCrosse boots. Materials could include a dealer poster, dealer catalog and consumer marketing materials. We would of course seek your final approval on the ways your words would be used. ?

Please let me know which boots you would like us to send. Thank you.

Best Regards,

Patrick Geoghegan (Gāgan)

Patrick Geoghegan

cc: Sean Laughlin, S&B

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STEPHAN & BRADY
INCORPORATED

Nov. 6, 1997

Datus C. Proper
1085 Hamilton Rd
Belgrade, MT 59714

Dear Datus,

I am eager to learn what you've found out regarding the modified LaCrosse Grange boot you told me about last week and hope it makes a good story for F&S. Enclosed you'll find a release form authorizing LaCrosse to use your quote as it appears in the form. Note we have included the name of your book as you requested. Please contact me if you have any questions.

Meantime, I have put in a request to have a pair of -100 boots sent to you. Please let me know whether they fit properly.

I've been thinking a lot about Montana these past few days with the airing of the Lewis and Clark documentary. In particular what Montana sculptor Lyndon Pomeroy once said to me, that "once you've lived in Montana it never lets go of you." So true.

Best regards,

Patrick

Patrick Geoghegan

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February 26, 1988

Dr. Stephen Jay Gould
c/o Natural History
American Museum of Natural History
New York, NY 10024

Dear Dr. Gould:

My thanks for "The Case of the Creeping Fox Terrier Clone" (January 1988). I write about trout fishing and, in trying to run down my sources, have been harried by fox terriers. It seemed like a lonely complaint until your article.

The comparison between scientific literature and that of fly-fishing for trout is not quite as silly as it may sound. Fly-fishing is a theoretical sport with a clear trail back five hundred years, and a murky one before that. Perhaps because there is science involved, much has been written -- more than on any other sport. (We've been lifting this assertion from each other for decades and it's probably true, but I've never seen the research, if any, on which it is based.)

In a book of mine published in 1982 (What The Trout Said, Knopf), I wrote that "trout fishing with an imitative fly . . . is the only sport that proceeds from a general theory." (I hope you do not consider this a crackpot idea, but if you do, please let me know.) The theory did emerge long before anyone would have known how to word it scientifically. There have been fly-fishing scientists since but no Darwin. The original theory, I think, goes like this: trout take the angler's fly because it resembles a natural creature which they are accustomed to eating. The angler must find what that creature is and then imitate it with something containing a hook: something that looks and acts natural, but is not. This may seem too obvious to be worth a theory, but in fact the proposition is still not accepted by most anglers. The theory can be tested and is not easy to prove or disprove. I think that the theory of imitatation works, with modifications, but the arguments have been almost as vigorous as those over evolutionary theory. The scientific part got really interesting in the nineteenth century, when there were some impressive students working on such things.

In 1836, for example, Alfred Ronalds showed that, because light rays bend when they pass from air into water, trout are not exactly where we see them -- and we anglers are not where trout see us. Later, someone else mininterpreted this to mean that fish can see anglers who cannot, in turn, see the fish. I haven't

found out who invented the one-way light ray. I have, however, continued to encounter it in recent books.

If I had read your article first, I might been encouraged to keep a sort of flow-chart on the repetition and twisting of ideas. But there isn't much demand for fishing books with footnotes, and I just wanted to get back to original sources without roasting the middle-men.

I didn't earn a lot of gratitude for that, either: writers with ingenious ideas (which they may in fact have received by immaculate conception) don't like to hear that some Englishman said the same thing a hundred years ago. One usually did, however; the British got a long head start. America is now, even more than Britain, the center of gravity of fly-fishing; we have a lot of good fishermen and some good writers. We're still copying from the British, but now they're copying from us too. Our technology is in great shape. Our equipment is, in fact, getting so good that it may not be fair to the trout. I don't know that we've made as much intellectual progress. It's hard to roll along when every generation wants to re-invent the wheel. You put it more precisely: "I wonder what the textbook tradition of endless and thoughtless copying has done to retard the spread of original ideas."

There may be one special problem in America: we are, I suppose, a bit more casual about origins than the Europeans. It seems to be a cultural thing, a kind of innocence. Recipes just appear in our cook-books, and who cares if some old Frenchman with a funny beard invented them first?

It was, nevertheless, encouraging to find that the dawn horse was <u>not</u> the size of a fox terrier. Serves 'em right.

Sincerely yours,

The breed is no longer so popular, and I suspect that most writers, like me, have only the vaguest impression about fox terriers when they copy the venerable simile.

In fact, we can trace the rise to dominance of fox terriers in our references. The first post-Osborn citation that we can find (Ernest Ingersoll, *The Life of Animals,* MacMillan, 1906) credits Osborn explicitly as author of the comparison with fox terriers. Thereafter, no one cites the original, and I assume that the process of text copying text had begun.

Two processes seem to have sealed the domination of fox terriers. First, experts began to line up behind Osborn's choice. The great vertebrate paleontologist W.B. Scott, for example, stood in loyal opposition in 1913, 1919, and 1929 when he cited both alternatives of fox and cat. But by 1937, he had switched: "*Hyracotherium* was a little animal about the size of a fox-terrier, but horse-like in all parts." Second, dogs became firmly ensconced in major textbooks. Both leading American geology textbooks of the early twentieth century (Chamberlin and Salisbury, 1909 edition, and Pirsson and Schuchert, 1924 edition) opt for canines, as does Hegner's zoology text (1912) and W. Maxwell Read's fine children's book (a mainstay of my youth) *The Earth for Sam* (1930 edition).

Fox terriers have only firmed up their position ever since. Experts cite this simile, as in A.S. Romer's leading text *Vertebrate Paleontology* (3d edition, 1966): " '*Eohippus*' was a small form, some specimens no larger than a fox terrier." They have also entered the two leading high-school texts: (1) Otto and Towle (descendant of Moon, Mann, and Otto, the dominant text for most of the past fifty years): "This horse is called *Eohippus*. It had four toes and was about the size of a fox-terrier" (1977 edition); (2) the *Biological Sciences Curriculum Study, Blue Edition* (1968): "The fossil of a small four-toed animal about the size of a fox-terrier was found preserved in layers of rock." College texts also comply. W.T. Keeton, in his *Biological Science*, the Hertz of the profession, writes (1980 edition): "It was a small animal, only about the size of a fox-terrier." Baker and Allen's *Study of Biology*, a strong Avis, agrees (1982 edition): "This small animal *Eohippus* was not much bigger than a fox-terrier."

You may care little for dawn horses or fox terriers and might feel that I have made much of nothing in this essay. But I cite the case of the creeping fox terrier clone not for itself, but rather as a particularly clear example of a pervasive and serious disease—the debasement of our textbooks, the basic tool of written education, by endless, thoughtless copying.

My younger son started high school last month. For a biology text, he is using the 4th edition of *Biology: Living Systems,* by R.F. Oram, with consultants P.J. Hummer and R.C. Smoot (Charles E. Merrill, 1983, but listed on the title page, following our modern reality of conglomeration, as a Bell and Howell Company). I was sad and angered to find several disgraceful passages of capitulation to creationist pressure. Page one of the chapter on evolution proclaims in a blue sidebar: "The theory of evolution is the most widely accepted scientific explanation of the origin of life and changes in living things. You may wish to investigate other theories." Similar invitations are not issued for any other well-established theory. Students are not told that "most folks accept gravitation, but you might want to check out levitation" or that "most people view the earth as a sphere, but you might want to consider the possibility of a plane." When the text reaches human history, it doesn't even grant majority status to our evolutionary consensus: "Humans are indeed unique, but because they are also organisms, many scientists believe that humans have an evolutionary history."

Yet, as I argued at the outset, I find these compromises to outside pressure, disgraceful though they be, less serious than the internal disease of cloning from text to text. There is virtually only one chapter on evolution in all high-school biology texts, copied and degraded, then copied and degraded again. My son's book is no exception. This chapter begins with a discussion of Lamarck and the inheritance of acquired characters. It then moves to Darwin and natural selection and follows this basic contrast with a picture of a giraffe and a disquisition on Lamarckian and Darwinian explanations for long necks. A bit later, we reach industrial melanism in moths and dawn horses of you-know-what size.

What is the point of all this? I could understand this development if Lamarckism were a folk notion that must be dispelled before introducing Darwin or if Lamarck were a household name. But I will lay 100 to 1 that few high-school students have ever heard of Lamarck. Why begin teaching evolution by explicating a false theory that is causing no confusion? False notions are often wonderful tools in pedagogy, but not when they are unknown, are provoking no trouble, and make the grasp of an accepted theory more difficult. I would not teach more sophisticated college students this way; I simply can't believe that this sequence works in high school. I can only conclude that someone once wrote the material this way for a reason lost in the mists of time, and that authors of textbooks have been dutifully copying "Lamarck . . . Darwin . . . giraffe necks" ever since.

(The giraffe necks, by the way, make even less sense. This venerable example rests upon no data at all for the superiority of Darwinian explanation. Lamarck offered no evidence for his interpretation and only introduced the case in a few lines of speculation. We have no proof that the long neck evolved by natural selection for eating leaves at the tops of acacia trees. We only prefer this explanation because it matches current orthodoxy. Giraffes do munch the topmost leaves, and this habit obviously helps them to thrive, but who knows how their necks elongated? They may have lengthened for other reasons and then been fortuitously suited for acacia leaves.)

If textbook cloning represented the discovery of a true educational optimum, and its further honing and propagation, then I would not object. But all evidence—from my little story of fox terriers to the larger issue of a senseless but nearly universal sequence of Lamarck, Darwin, and giraffe necks—indicates that cloning bears an opposite and discouraging message. It is the easy way out, a substitute for thinking and striving to improve. Somehow I must believe—for it is essential to my notion of scholarship—that good teaching requires fresh thought and genuine excitement and that rote copying can only indicate boredom and slipshod practice. A carelessly cloned work will not excite students, however pretty the pictures. As an antidote, we need only the most basic virtue of integrity—not only the usual, figurative meaning of honorable practice but the less familiar, literal definition of wholeness. We will not have great texts if authors cannot shape content but must serve a commercial master as one cog in an ultimately powerless consortium with other packagers.

To end with a simpler point amid all this tendentiousness and generality: thoughtlessly cloned "eternal verities" are often wrong. The latest estimate I have seen for the body size of *Hyracotherium*, challenging previous reconstructions congenial with the standard simile of fox terriers, cites a weight of some twenty-five kilograms, or fifty-five pounds (B.J. MacFadden, *Paleobiology*, Fall 1986).

Lassie come home!

Stephen Jay Gould teaches biology, geology, and the history of science at Harvard University.

out to be much more ascertainable and revealing than I had imagined.

The tradition of simile begins at the very beginning. Richard Owen, the great British anatomist and paleontologist (see my column of October 1986), described the genus *Hyracotherium* in 1841. He did not recognize its relationship with horses (he considered this animal, as his chosen name implies, to be a possible relative of hyraxes, a small group of Afro-Asian mammals, the "coneys" of the Bible). In this original article, Owen likened his fossil to a hare in one passage and to something between a hog and a hyrax in another. Owen's simile plays no role in later history because other traditions of comparison had been long established before scientists realized that Owen's older discovery represented the same animal that Marsh later named *Eohippus*. (Hence, under the rules of taxonomy, Owen's inappropriate and uneuphonious name takes unfortunate precedence over Marsh's lovely *Eohippus*.)

The modern story begins with Marsh's description of the earliest horses in 1874. Marsh pressed "go" on the simile machine by writing, "This species was about as large as a fox." He also described the larger descendant *Miohippus* as sheeplike in size.

Throughout the nineteenth century all sources that we have found (eight references, including such major figures as Joseph Le Conte, Archibald Geikie, and even Marsh's bitter enemy E.D. Cope), copy Marsh's favored simile—they all describe *Eohippus* as fox sized. We are confident that Marsh's original description is the source because most references also repeat his statement that *Miohippus* is the size of a sheep. How, then, did fox terriers replace their prey?

The first decade of our century ushered in a mighty Darwinian competition among three alternatives and led to triumph for fox terriers. By 1910, three similes were battling for survival. Marsh's original fox suffered greatly from competition, but managed to retain a share of the market at about 25 percent (five of twenty citations between 1900 and 1925 in our sample)—a frequency that has been maintained ever since (see accompanying figure). Competition came from two stiff sources, however—both from the Museum that sponsors this magazine.

First, in 1903, W.D. Matthew, vertebrate paleontologist at the American Museum of Natural History, published his famous pamphlet *The Evolution of the Horse* (it remained in print for fifty years, and was still being sold at the Museum shop when I was a child). Matthew wrote: "The earliest known ancestors of the horse were small animals not larger than the domestic cat." Several secondary sources picked up Matthew's simile during this quarter century (also five of twenty references between 1900 and 1925), but felines have since faded (only one of fifteen references since 1975), and I do not know why.

Second, the three-way carnivorous competition of vulpine, feline, and canine began in earnest when man's best friend made his belated appearance in 1904 under the sponsorship of Matthew's boss, American Museum president and eminent vertebrate paleontologist Henry Fairfield Osborn. Remember that no nineteenth-century source (known to us) had advocated a canine simile, so Osborn's last entry suffered a temporal handicap. But Osborn was as commanding (and enigmatic) a figure as American natural history has ever produced—a powerful patrician in science and politics, imperious but kind, prolific and pompous, crusader for natural history and for other causes of opposite merit (Osborn wrote, for example, a glowing preface to the most influential tract of American scientific racism, *The Passing of the Great Race*, by his friend Madison Grant).

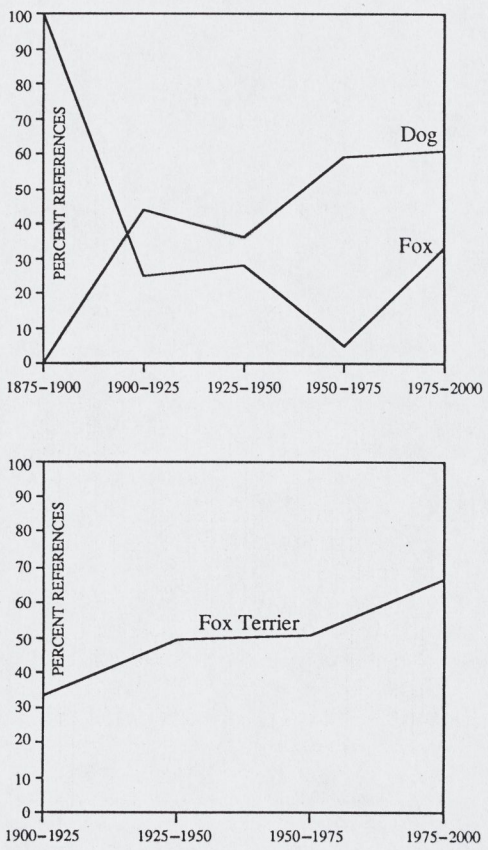
In the *Century Magazine* for November 1904, Osborn published a popular article, "The Evolution of the Horse in America." (Given Osborn's almost obsessively prolific spate of publications, we would not be surprised if we have missed an earlier citation.) His first statement about *Eohippus* introduces the comparison that would later win the competition:

> We may imagine the earliest herds of horses in the Lower Eocene (*Eohippus,* or "dawn horse" stage) as resembling a lot of small fox-terriers in size . . . . As in the terrier, the wrist (knee) was near the ground, the hand was still short, terminating in four hoofs, with a part of the fifth toe (thumb) dangling at the side.

Osborn provides no rationale for his choice of breeds. Perhaps he simply carried Marsh's old fox comparison unconsciously in his head and chose the dog most similar in name to the former standard. Perhaps Roger Angell's conjecture is correct. Osborn certainly came from a social set that knew about fox hunting. Moreover, as the quotation indicates, Osborn extended the similarity of *Eohippus* and fox terrier beyond mere size to other horselike attributes of this canine breed (although, in other sources, Osborn treated the whippet as even more horselike, and even mounted a whippet's skeleton for an explicit comparison with *Eohippus*). Roger Angell described his fox terrier to me: "The back is long and straight, the tail is held jauntily upward like a trotter's, the nose is elongated and equine, and the forelegs are strikingly thin and straight. In motion, the dog comes down on these forelegs in a rapid and distinctive, stiff, flashy style, and the dog appears to walk on his tiptoes—on hooves, that is."

In any case, we can trace the steady rise to domination of dog similes in general, and fox terriers in particular, ever since. Dogs reached nearly 50 percent of citations (nine of twenty) between 1900 and 1925, but have now risen to 60 percent (nine of fifteen) since 1975. Meanwhile, the percentage of fox terrier citations among dog similes had also climbed steadily, from one-third (three of nine) between 1900 and 1925 to one-half (eight of sixteen) between 1925 and 1975, to two-thirds (six of nine) since 1975. Osborn's simile has been victorious.

The only credible source for these shifts of popularity is copying: first from experts; then from other secondary sources. Shifts in fashion cannot reflect independent insights based on observation of specimens. *Eohippus* could not, by itself, say "fox" to every nineteenth-century observer and "dog" to most twentieth-century writers. Nor can I believe that two-thirds of all dog-inclined modern writers would independently say, "aha, fox terrier" when contemplating the dawn horse.



grams, and subsidiary materials in the form of slide sets, teachers' guides, even test-making and grading services. The actual text of the book can become secondary and standardized; any departure from a conventional set of topics could derail an entire industry of supporting materials. Teachers are also locked into a largely set curriculum based on this flood of accouterments. Paul concludes: "Today's textbooks are thicker, slicker, more elaborate, and more expensive than they used to be. They are also more alike. Indeed, many are virtual clones, both stylistic and substantive, of a market leader."

The marketplace rules. Most publishing houses are now owned by conglomerates—CBS, Raytheon, and Coca-Cola among them—with managers who never raise their eyes from the financial bottom line, know little or nothing about books, and view the publishing arm of their diversified empire as but one more item for the ultimate balance. I received a dramatic reminder of this trend last week when I looked at the back cover of my score for Mozart's *Coronation Mass*, now under rehearsal in my chorus. It read: "Kalmus Score. Belwin Mills Publishing Company, distributed by Columbia Pictures Publication, a unit of the Coca-Cola Company." I don't say that Bill Cosby or Michael Jackson or whoever advertises the stuff doesn't like Mozart; I merely suspect that Don Giovanni can't be high on the executive agenda when the big boys must worry about such really important issues as whether or not to market Cherry Coke (a resounding "yes" vote from this old New York soda fountain junkie).

Paul quotes a leading industry analyst from the 1984 *Book Publishing Annual*. Future textbooks, the analyst argues, will have "more elaborate designs and greater use of color.... The ancillary packages will become more comprehensive.... New, more aggressive marketing plans will be needed just to maintain a company's position. The quality of marketing will make the difference." Do note the conspicuous absence of any mention whatsoever about the quality of the text itself.

Paul is obviously correct in arguing that this tendency to cloning has accelerated remarkably as concerns of the market overwhelm scholarly criteria in the composition of textbooks. But I believe that the basic tendency has always been present and has a human as well as a corporate face. Independent thought has always been more difficult than borrowing, and authors of textbooks have almost always taken the easier way out. Of course I have no objection to the similar recording of information by textbooks. No author can know all the byways of a profession, and all must therefore rely on written sources for areas not enlightened by personal expertise. I speak instead of the thoughtless, senseless, and often false copying of phrase, anecdote, style of argument, and sequence of topics that perpetuates itself by degraded repetition from text to text and thereby loses its anchor in nature.

I present an example that may seem tiny and peripheral in import. Nevertheless, and perhaps paradoxically, such cases provide our best evidence for thoughtless copying. When a truly important and well-known fact graces several texts in the same form, we cannot know whether it has been copied from previous sources or independently extracted from any expert's general knowledge. But when a quirky little senseless item attains the frequency of the proverbial bad penny, copying from text to text is the only reasonable interpretation. There is no other source. My method is no different from the standard technique of bibliographic scholars, who establish lineages of texts by tracing errors (particularly for documents spread by copyists before the invention of printing).

When textbooks choose to illustrate evolution with an example from the fossil record, they almost invariably trot out that greatest warhorse among case studies—the history of horses themselves (see my column of April 1987 for fallacies of the usual tale). The standard story begins with an animal informally called *Eohippus* (the dawn horse), or more properly, *Hyracotherium*. Since evolutionary increase in size is a major component of the traditional tale, all texts report the diminutive stature of ancestral *Hyracotherium*. A few give actual estimates or measurements, but most rely upon a simile with some modern organism. For years, I have been much amused (and mildly bothered) that the great majority of texts report *Hyracotherium* as "like a fox-terrier" in size. I was jolted into action when I found myself writing the same line, and then stopped. "Wait a minute," said my inner voice, "beyond some vague memories of Asta last time I watched a Thin Man movie, I haven't the slightest idea what a fox terrier is. I can't believe that the community of textbook authors includes only dog fanciers—so if I don't know, I'll bet most of them don't either." Clearly, the classical line has been copied from text to text. Where did it begin? What has been its history? Is the claim even correct?

My immediate spur to action came from a most welcome and unexpected source. I made a parenthetical remark about the fox terrier issue in my April 1987 column, ending with a serious point: "I also wonder what the textbook tradition of endless and thoughtless copying has done to retard the spread of original ideas."

I have, over the years, maintained a correspondence about our mutually favorite subject with Roger Angell of *The New Yorker*, who is, among other things, the greatest baseball writer ever. I assumed that his letter of early April would be a scouting report for the beginning of a new season. But I found that Roger Angell is a man of even more dimensions than I had realized; he is also a fox terrier fancier. He had read my parenthetical comment and wrote, "I am filled with excitement and trepidation at the prospect of writing you a letter about science instead of baseball."

Angell went on to suggest a fascinating and plausible explanation for the origin of the fox terrier simile (no excuse, of course, for its later cloning). Fox terriers were bred "to dig out foxes from their burrows, when a fox had gone to earth during a traditional British hunt." Apparently, generations of fox-hunting gentlemen selected fox terriers not only for their functional role in the hunt but also under a breeder's artifice to make them look as much like horses as possible. Angell continues, "The dogs rode up on the saddle during the hunt, and it was a pretty conceit for the owner-horseman to appear to put down a little simulacrum of a horse when the pack of hounds and the pink-coated throng had arrived at an earth where the animal was to do his work." He also pointed out that fox terriers tend to develop varied patches of color on a basically white coat and that a "saddle" along the back is "considered desirable and handsome." Thus, Angell proposed his solution: "Wouldn't it seem possible that some early horse geologist, in casting about for the right size animal to fit his cliché-to-be, might have settled, quite unconsciously, on a breed of dog that fitted the specifications in looks as well as size?"

This interesting conjecture led me to devise the following, loosely controlled experiment. I asked David Backus, my research assistant, to record every simile for *Hyracotherium* that he could find in the secondary literature of texts and popular books during more than a century since O.C. Marsh first recognized this animal as a "dawn horse." We would then use these patterns in attempting to locate original sources for favored similes in the primary literature of vertebrate paleontology. We consulted the books in my personal library as a sample, and compiled a total of eighty-six descriptions. The story turns

The Case of the Creeping Fox Terrier Clone

Or why Henry Fairfield Osborn's ghost continues to reappear in our high schools

by Stephen Jay Gould

When Asta the fox terrier exhumed the body of the Thin Man, his delightfully tipsy detective master, Nick Charles, exclaimed, "You're not a terrier; you're a police dog" (*The Thin Man,* MGM 1934 original with William Powell and Myrna Loy). May I now generalize for Asta's breed in the case of the telltale textbook.

The wisdom of our culture abounds with mottoes that instruct us to acknowledge the faults within ourselves before we criticise the failings of others. These words range from clichés about what pots and kettles call each other to various sayings of Jesus: "And why beholdest thou the mote that is in thy brother's eye, but perceivest not the beam that is in thine own eye?" (Luke 6:41); "He that is without sin among you, let him first cast a stone at her" (John 8:7). I shall follow this wisdom in trying to express what I find so desperately wrong about the basic tool of American teaching, the textbook.

In March 1987, I spent several hours in the exhibit hall of the National Science Teachers Association convention in Washington, D.C. There I made an informal, but reasonably complete, survey of how (or if) evolution was treated in all major high-school science textbooks. I did find some evidence of adulteration, pussyfooting, and other forms of capitulation to creationist pressure. One book, *Life Science*, by L.K. Bierer, V.F. Liem, and E.P. Silberstein (Heath, 1987), in an accommodation that at least makes you laugh while you weep for lost integrity in education, qualifies every statement about the ages of fossils—usually in the most barbarous of English constructions, the passive infinitive. We discover that trilobites are "believed to have lived 500–600 million years ago," while frozen mammoths are "thought to have roamed the tundra 22,000 years ago." But of one poor bird, we learn with terrible finality, "There are no more dodoes living today." Their extinction occurred within the bounds of biblical literalism and need not be hedged.

But I was surprised and pleased to note that most books contained material at reasonable length about evolution and with no explicit signs of tampering to appease creationists. Sins imposed by others were minimal. But I then found the beam in our own eye and became, if anything, more distressed than by any capitulation to the Yahoos. The problem does not lie in what others are doing to us, but in what we are doing to ourselves. In book after book, the evolution section is virtually cloned. Almost all authors treat the same topics, usually in the same sequence, and often with illustrations changed only enough to avoid suits for plagiarism. Obviously, authors of textbooks are copying material on a massive scale and passing along to students an ill-considered and virtually Xeroxed version with a rationale lost in the mists of time.

Just two months after making this depressing observation, I read Diane B. Paul's fascinating article "The Nine Lives of Discredited Data" (*The Sciences,* May 1987). Paul analyzed the sections on heritability of IQ from twenty-eight textbooks on introductory genetics published between 1978 and 1984. She paid particular attention to their treatment of Sir Cyril Burt's data on identical twins raised separately. We now know that these "studies" represent one of the most striking cases of fraud in twentieth-century science—for Burt invented both data and co-workers. His sad story had been well publicized, and all authors of texts published since 1978 surely knew that Burt's data had been discredited and could not be used. Several texts even included discussions of the Burt scandal as a warning about caution and scrutiny in science.

But Paul then found that nearly half these books continued to cite and use Burt's data, probably unconsciously. Of nineteen textbooks that devoted more than a paragraph to the subject of genetics and IQ, eleven based their conclusions about high heritability on a review article published in *Science* in 1963. This review featured a figure that ten of these textbooks reproduced either directly or in slightly altered and simplified form. This figure includes, as a prominent feature, the results of Sir Cyril Burt (not yet suspect in 1963). We must conclude that the authors of these texts had either not read the 1963 article carefully or had not consulted it at all. Paul infers (correctly, I am sure) that this carelessness arises because authors of textbooks copy from other texts and often do not read original sources. How else to explain the several books that discussed the Burt scandal explicitly and then, unbeknown to their authors, used the same discredited data in a figure?

Paul argues that the increasing commercialization of textbooks has engendered this virtual cloning of contents. Textbook publishing is a big business, replete with market surveys, fancy art pro-

21 July · 1992

Dear Datus,

In the summer of 1981 I pulled your *What the Trout Said* off the "New Books" shelf at the Ida Williams Branch of the Fulton County Library, attracted, as I was to its elegant, dark green jacket.

I don't fish, but your book, along with *A River Runs Through It* make me wish I did.

In February of this year I mentioned the book to my friend John McPhee. I don't know if he found a copy. (475 Drakes Corner Road, Princeton, NJ 08540.)

Late last month I completed the first draft of my first novel. There is a moment when Seth, the main character's husband, realizes that he is caught, that his dalliance with a beautiful woman architect has turned into love, that he has been hooked. I enclose the pages which include that moment. It is an homage to you.

As for me, I was a member of the wedding: Joanna & Lindsay Fischer June, 1956
And you & I are there on the wall of my life's office along with all the others.

(I keep in touch w/ L & J as well as your classmate Sandy Barnard at less frequently, John d'Army.)

Anyway, Dates, all the best.

Very cordially yours,

Sidney Gerberman.

131 Montgomery Ferry Drive
Atlanta
Georgia · 30309

Great story

Nov 14, 1991
RR5 Box1 Shamrock Site
Quesnel, B.C. V2J 3H9

use anecdote in ruffed or blue grouse story

Dear Datus,

I picked up the Oct./91 Field + Stream and your name jumped right out at me. You see, my fathers name is Datus O. Perry, also my great great grandfather was Datus Ensign Perry. The name Datus is so unusual.

I have been doing my genealogy and have found it a common name in the Ensign family genealogy. I've been unsuccessful in tracing the Perry family back further than 1806 in Vermont.

I would be very interested in whatever you may know about the origin of your name Datus. I hope you will drop me a line.

I did enjoy your grouse hunting story. One way we hunt them is with the car. If theres one in the road, we straddle it with the wheels, then stop and pick it up. They go to jump up and it takes their heads off.

Just a final note, In the Sept. issue of Field + Stream, the article by Peter Barrett is about the Blackwater River here in B.C. Ron Thompson is a very good friend and I help him occasionally. I look right out my window of an old log house onto the Blackwater. It is the only house on the river. Great Country! I look

forward to hearing from you.
I am grasping at straws, but
its a small world at times.

Sincerely,
Maurine Stoddenough