

# THE TEACHING OF SOCIAL SCIENCE AND THE PRESERVATION OF MORAL TRADITION

by *John A. Miles, Jr.*

What sort of person is drawn to professional specialization in the social sciences? When such a person becomes a college professor, what sort of character formation occurs around the edges of his instruction? Last fall, in an address entitled "On the Conflicts between Biological and Social Evolution and between Psychology and Moral Tradition," the presidential address to the American Psychological Association, Donald T. Campbell spoke rather directly to these questions.<sup>1</sup> In what follows I shall expand and comment on his observations. First, however, I should like to present a fictional incident as a kind of foil.

In Flannery O'Connor's "Everything That Rises Must Converge" Julian Chestny is a recent college graduate living in the South with his mother. He wants to be a writer and, in the meantime, is allowing her to support him. He resents the fact that she is proud of his education since, as he sees it, it was

in spite of her [that] he had turned out so well. In spite of going to only a third-rate college, he had, on his own initiative, come out with a first-rate education; in spite of growing up dominated by a small mind, he had ended up with a large one; in spite of all her foolish views, he was free of prejudice and unafraid to face facts. Most miraculous of all, instead of being blinded by love for her as she was for him, he had cut himself emotionally free of her and could see her with complete objectivity. He was not dominated by his mother.<sup>2</sup>

Julian likes blacks, always makes a point of sitting next to them on the bus, tries (unsuccessfully) to engage them in conversation, daydreams about bringing a black lawyer to his mother's dinner table or a black physician to her deathbed or a "beautiful, suspiciously Negroid woman" to be her daughter-in-law.

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Mrs. Chestny speaks in clichés and has no more developed a social philosophy than “with the world in the mess it’s in . . . , it’s a wonder we can enjoy anything. I tell you, the bottom rail is on top.”<sup>3</sup> She has “always had great respect for my colored friends,” but, unlike her son, she does not sit next to them on the bus, much less try to engage them in conversation. In fact, since integration she refuses even to ride the bus unescorted. She thinks the blacks were better off as slaves. If they must rise, let them do so “on their own side of the fence.”

One night as Julian and his mother are riding the bus (he is escorting her to reducing class at the “Y”), a fierce-looking black woman and her grandson Carver climb on board. The woman is carrying a “mammoth red pocketbook that bulged throughout as if it were stuffed with rocks.” Mrs. Chestny begins to play games with the boy (“I see yooooo!”). The grandmother is not amused. When all four chance to dismount at the same stop, and Mrs. Chestny decides to give the cute colored boy a shiny penny, his grandmother roars, “He don’t take nobody’s pennies,” and slugs Mrs. Chestny with her purse. Julian is satisfied. His mother has at last had her comeuppance: “That was the whole colored race which will no longer take your condescending pennies.”<sup>4</sup> Unfortunately, Mrs. Chestny does not hear him. The purse that had seemed loaded with rocks was, in fact, loaded with rocks. In a few minutes Mrs. Chestny is dead.

So Julian was wrong. It really was dangerous to ride the bus at night with blacks. Liberal pretension is laid bare in his sanctimony. But, of course, the dead woman’s conservative clichés are not proved by her death either. The story refutes neither Julian nor his mother but rather its own title, “Everything That Rises Must Converge,” a bitter allusion to the meliorist biotheology of the Jesuit paleontologist Teilhard de Chardin. Biologists had their own quarrels with Teilhard, but theologians objected to his denial of original sin. O’Connor takes her stand with the theologians. Julian’s education and his mother’s common sense could converge, but they do not. His abstract endorsement of “the whole colored race” and her feeling for one black boy could kiss like righteousness and peace, but again they do not. Good is not inevitable. Revelations may rise on all sides, but they need not converge.

### MUTATION:RETENTION::INNOVATION:TRADITION

The relative convergence or divergence of higher education like Julian’s and common sense like his mother’s is a matter of no small evolutionary significance, according to Campbell. In his address Campbell points out that in complexity the only nonhuman parallel to human social organization occurs in insect societies. But in

these societies, unlike the human, all members are genetically related, and there is no genetic competition among the cooperating workers because they are sterile. There is, then, no possibility for family groups competing within the societies to break them apart. Among mammals this possibility does exist, and so we are not surprised to find that, among all mammals but man, no diversified social grouping occurs at a level much higher than that of the extended family. We should expect man, as a mammal, to conform sociobiologically to the mammalian pattern. If he does not, it must be that human biological evolution has been counterbalanced and overlaid by something else. Others use the word "culture." Campbell proposes "social evolution," an explanatory concept which recent research has rehabilitated after a period of neglect.

Campbell draws an analogy between the value of mutation in biological evolution and the value of innovation in social evolution. If change brings progress, "one might expect evolutionary geneticists to favor anything that would increase the mutation rate, such as X-ray diagnosis and atomic weapons testing, because this would provide new raw material for further and more rapid evolutionary progress."<sup>5</sup> In fact, of course, the opposite is the case: Geneticists know that "over 99 percent of biological mutations can be estimated to be maladaptive or neutral."<sup>6</sup> In biological evolution the greater part of success at any given moment is not mutation but retention.

In social evolution the retention mechanisms were until recently conformity pressures and apprenticeships. Now, however, in the technologically advanced societies, "much of the cumulated technological wisdom is . . . embodied in industrial machines, rather than in individual memories. . . . Printed instructions and illustrations and the widespread ability to read no doubt also contributed to this reversal of trend. For these aspects of adaptive culture cumulation, the new retention mechanisms have no doubt reduced the need for strong tradition-enforcing mechanisms, increasing the system's tolerance of variation."<sup>7</sup> But society is held together by more than the accumulation of its technological wisdom. There is also a wisdom that has to do with "social coordination, organizational structure, moral norms optimizing group effectiveness, [and] belief systems generating commitment to collective goals."<sup>8</sup> If there has been a reduction of pressure to conform in these areas—and Campbell, like most more casual observers, thinks there has been—has some new retention system been introduced to secure what the old conformity pressures were designed to secure? What, for the retention and preservation of the nontechnological aspects of social evolution, corresponds to industrial machinery and instruction booklets? Campbell sees nothing at hand

and quotes Herbert Spencer: "Few things can happen more disastrous than the decay and death of a regulative system no longer fit, before another and fitter regulative system has grown up to replace it."<sup>9</sup> Earlier social evolutionists "implied that, once a social-evolutionary scientific ethical system was available, individuals would adopt it out of an enlightened self-interest."<sup>10</sup> It was enlightened self-interest, as they saw it, which—like DNA in biological evolution—would serve as the retention mechanism assuring the survival of complex human societies from one generation to the next. Campbell finds reason to doubt not only that this has been the case but also that it ever could be.

#### TRADITION WISER THAN ITS TRANSMITTERS

Much hangs, of course, on Campbell's undeveloped definitions of "self" and "enlightened," but let us assume minimally that early, voluntary death escapes even the broadest definition of enlightened self-interest. Now, if we understand "the good" to be those who put the well-being of society above their own even to the point of dying for it, then, if "the good die young" over a period of many generations the genetic basis for their goodness will be eliminated gradually. Those who die young, after all, breed less, if at all. And so, if the stability and complexity of society require a certain amount of such altruistic, self-sacrificial behavior, the extinction of "the good" will gradually lead to the collapse of society—unless, and here we return to Campbell's central thesis, social evolution has retained some other mechanism for the enculturation of values higher than enlightened self-interest.

Campbell finds this resource in religion, an evolutionary mechanism for which he urges "a grudging, skeptical respect" and which, he implies, has not yet been replaced. Campbell does not celebrate religion. He does, however, insist that "psychology and psychiatry are more hostile to the inhibitory messages of traditional religious moralizing than is scientifically justified."<sup>11</sup> To get a proper perspective on religion as a mechanism in social evolution, "it is well to remember that natural selection describes a process by which stupid, blind, unforesightful processes can produce adaptive wisdom."<sup>12</sup> If there is much in religion that strikes the observer as bizarre, gratuitous, or even maladaptive, one must yet hesitate to conclude that, taken as a whole, religion does not remain an indispensable mechanism for the retention of social wisdom:

Just as human and octopus eyes have a functional wisdom of which none of the participating cells or genes has ever had self-conscious awareness, so in social evolution we can contemplate a process in which adaptive belief systems,

which none of the innovators, transmitters, or participants properly understood, can be accumulated—a tradition wiser than any of the persons transmitting it. We can imagine such a system operating in ancient Egypt, India, or Mexico, among superstitious populations dominated by priests equally ignorant of the true adaptive functions of the belief systems they perpetuated. . . . The retention system must operate, as in biological evolution, by perpetuating everything it receives from the edited past.<sup>13</sup>

Campbell's argument is much more complex and more carefully qualified than these few paragraphs can suggest; though he characterizes himself as a "hard-line neo-Darwinian," he concedes that in this article he goes beyond available evidence. Like O'Connor, he intends mainly to urge caution upon those who see social evolution as the harmonious extension of biological evolution. He reminds us that much biological evidence would seem to argue that the stabilization point for human social complexity is significantly lower than that presently attained. And again, like O'Connor, he insists on both the shocking peculiarity and the probable necessity of religion. So long as we do not understand what maintains us at present levels of social complexity, we should be wary of too quickly dismissing any behavior, however (for the moment) scientifically gratuitous, which persists.

#### INNOVATIVE PROFESSORS VERSUS TRADITIONAL SOCIETY

One sort of dismissal of religious behavior is, of course, pedagogical dismissal, classroom propaganda, or antipropaganda. Campbell's remarks to this point are quite specific, but, before turning to them, I should like to deliver a few of my own. Campbell's comments grow from biology and psychology, mine from a more informal observation of academics in action. I should like to think that both may be useful.

I hold no final position on the question of academic tenure, but I shall assert that in varying degrees all academics are kept men and kept women. Like the clergy, they are provided for and allowed to say whatever comes into their heads. At their best, they—like the clergy—often manage to speak the outrageous truth. But, like the clergy, they pay for this freedom in the coin of power. They may risk any mistake, for society has stripped them of responsibility. It is structurally impossible for their mistakes ever to be costly.

When teachers have the wisdom to recognize their position and the courage to accept it, students will not easily generalize even the most biting lecture-hall social criticism into contempt for society as a whole. But when, as is unfortunately often the case, teachers nourish the aggrieved conviction that once they have spoken the truth they ought to be granted the power—as if the bishop were to demand the scepter in tribute to his wit—students can infer too easily that society as a

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whole is bereft of intelligence and virtue. Generalized, the unhappy consciousness of the professor can make of a Julian the sort of liberal who finds it "a certain satisfaction to see injustice in daily operation. It confirm[s] his view that with a few exceptions there [is] no one worth knowing within a radius of three hundred miles."<sup>14</sup>

In other words, students can be unwittingly caught up in a war which their professors are waging against the society which has determined what role professors must play. The petty resentment which a student like Julian may feel toward his mother for insufficiently prizing his gifts can be subsumed in this larger hostility. His contempt for her value system ("Everything which gave her pleasure was small and depressed him"<sup>15</sup>) can merge with their rejection of the ruling values of society as a whole.

Like Julian, a tenured professor may walk out on his security if he wishes more independence. Like him, he may unconsciously disparage himself for not doing so. But, when self-disparagement and diffuse anger of this sort have superior intelligence at their disposal, the gross educational impact on a Julian is only too predictable. He acquires a well-credentialed intellectual justification for everything he feels toward his mother and a penumbra of filial resentment around everything he thinks about society.

Campbell is at pains to point out that his evolutionary psychology does not serve the purposes of either liberal or conservative politics. Neither do my own more informal observations. Let us suppose that, on a spectrum of political positions between statism on the left and anarchism on the right, B. F. Skinner and Ayn Rand define the extremes. Let us imagine now that both are offering courses in Julian's college, the former lecturing from his *Walden Two*, the latter from her *Atlas Shrugged*.<sup>16</sup> In either course Julian will find encouragement to despise the general run of mankind. Both texts eschew solidarity with the common man and urge withdrawal and intellectual elitism. In both a group of thinkers retires to a hidden valley, convinced that civilization in its present form is doomed, confident that eventually dire circumstance will compel the mad world to seek the group out. The impact of such models on Julian is predictable:

Behind the newspaper Julian was withdrawing into the inner compartment of his mind where he spent most of his time. This was a kind of mental bubble in which he established himself when he could not bear to be a part of what was going on around him. From it he could see out and judge but in it he was safe from any kind of penetration from without. It was the only place where he felt free of the general idiocy of his fellows. His mother had never entered it but from it he could see her with absolute clarity.<sup>17</sup>

Though *Atlas Shrugged* and *Walden Two* are ostensibly visions of communities, behind each community there stands a single, overmastering *Geist*. Rand's John Galt is intended to be as lofty as Milton's God, her question "Who is John Galt?" as inescapable as "What think ye of Jesus?" Skinner's protagonist, T. E. Frazier, is equally exalted. In Frazier's own words, he is an improvement on the divine, what God ought to have been had he ever existed.

Both these perennial campus favorites lecture the reader imperiously. Both treat him repeatedly to the sardonic squelch of inferiors. Though neither is tragic, neither is genuinely comic, even by way of relief. There is no ridiculous situation, no humorous characterization, nothing, in short, to suggest that the authors enjoy life among people as they are. Their effect on Julian will be the same, no matter that one instructor is called a radical and the other a fascist.

Julian may be impervious to professorial influence if, in a "third-rate" college like his, the professor passes for an exotic whose opinions come stamped "for schoolroom use only." However, in more prestigious colleges where the student body and the faculty enjoy a common socioeconomic background and the degree is a step to law school or business school and to reliable connections on the far side, the professor, though perhaps treated as undeferentially as if the classroom were the kitchen, is yet more genuinely listened to. One in every three Americans has had some higher education, but the vices of higher education most threaten that minority to whom higher education is most nearly connatural.

Of a piece with academics' unconscious elitism is their anti-traditionalism: If one is convinced that he has nothing to learn from his contemporaries, then there is scant likelihood that he will sit at the feet of their ancestors. Present conventions are, after all, the afterlife of past decisions. If I struggle to discern reason in the decisions of my contemporaries, then chances are I shall do the same for my forebears; and if not, then not.

When the goal of education is, in T. E. Frazier's words, "a grasp of the *current* forces which a culture must deal with. None of your myths, none of your heroes—no history, no destiny—simply the *Now!* . . . the only thing we can deal with, anyway, in a scientific way,"<sup>18</sup> the result is initially anomie and, ultimately, to borrow a phrase from C. S. Lewis, the abolition of man.

#### AN EXAMPLE FROM C. S. LEWIS

"The Abolition of Man," an essay Lewis wrote a generation ago, is subtitled "Reflections on Education with Special Reference to the

Teaching of English in the Upper Forms of Schools." It is a dissection of the sort of indirect education we are speaking of, this time in the humanities. Lewis begins with the analysis of an apparently innocent passage in a British textbook. The passage tells how Coleridge once overheard two tourists exclaiming over a waterfall. One said, "That is pretty"; the other, "That is sublime!" Coleridge mentally endorsed the latter judgment. The textbook authors (whom Lewis disguises as "Gaius" and "Titius") opine that "When the man said *That is sublime*, he appeared to be making a remark about the waterfall. . . . Actually . . . he was not making a remark about the waterfall, but a remark about his own feelings. What he was saying was really *I have feelings associated in my mind with the word 'Sublime,'* or shortly, *I have sublime feelings.*"<sup>19</sup> Lewis maintains that a schoolboy unconsciously would infer from this comment, first, that all sentences containing a predicate of value are statements about the emotional state of the speaker and, second, that all such statements are unimportant. Gaius and Titius, Lewis presumes, do not consciously intend to propagate a philosophy but do so primarily because the traditional belief that the universe is "such that certain emotional reactions on our part could be either congruous or incongruous to it" has come into question for them as for many moderns.<sup>20</sup> For traditional teachers, the task of pedagogy is to train in the pupil those sentiments which are in themselves appropriate. For modern teachers, at least those who believe that no given sentiment is necessarily appropriate, the alternatives are (1) to discourage all sentiment, as far as possible, and (2) to encourage some sentiments and discourage others for reasons that have nothing to do with their intrinsic rightness. Since the latter course is patent propaganda, antipropaganda liberals choose the former. Their students are thus spared the propaganda. However, to the extent that the teaching "takes," they become men like their teachers, intellectuals distinguished not by "excess of thought but [by] defect of fertile and generous emotion. . . ." <sup>21</sup> Apathy is decried on all sides, no less by liberals than by conservatives, but apathy is the logical result of an educational practice which finds no emotion appropriate enough to encourage: "In a sort of ghastly simplicity we remove the organ and demand the function. We laugh at honour and are shocked to find traitors in our midst. We castrate and bid the geldings be fruitful."<sup>22</sup>

O'Connor's Julian strikes one as precisely this sort of emotional gelding. He is, for example, afflicted with a strange nostalgia for the lost family mansion: "He never spoke of it without contempt or thought of it without longing."<sup>23</sup> His contempt for his mother's cloying graciousness rings equally hollow, given his inability quite to bring off even the smallest authentic gesture in the same direction. His



contempt for her manners is a eunuch's contempt for pornography. One line of interpretation might say that Julian had a castrating mother, but Lewis would tend to find that blood on the hands of the boy's teachers.

Paradoxically, I doubt that Lewis, were he still alive, would applaud the relative popularity of a writer like O'Connor among college English teachers. As he sees it, teachers like Gaius and Titius who, rejecting the possibility that any emotion may be truly good, spend the bulk of their instructional time exposing bad emotion do not teach discrimination but only debunk. Their principle is "I don't know what's good, but I know what I dislike," and their students tend in consequence to dislike a great deal without quite knowing why. Since O'Connor offers much to "see through" superficially and to dislike, she plays into the debunkers' hands.

Lewis notes that authors like Gaius and Titius "who 'debunk' traditional or (as they would say) 'sentimental' values have in the background values of their own which they believe to be immune from the debunking process."<sup>24</sup> To what extent, Lewis asks, is their belief justified? The traditional value system—what Lewis likes to call the *Tao*—is unabashedly based not on fact but on a kind of faith. Though theism is not indispensable to it, the world religions have been its main carrier; and, within these religions, it has been taken as axiomatic that one should, for example, protect children, venerate the aged, defend his country, and pay his debts. Is there an alternative to axiomatic morality? Can there be morality that might be more firmly grounded in fact? The question is vexed, but Lewis maintains: "Unless you accept these [ judgments, the moral imperatives that recur in all the major traditions, the *Tao* ] as being to the world of action what axioms are to the world of theory, you can have no practical principles whatever. You cannot reach them as conclusions: They are premisses. . . . if nothing is self-evident, nothing can be proved. Similarly, if nothing is obligatory for its own sake, nothing is obligatory at all."<sup>25</sup>

#### C. S. LEWIS AND B. F. SKINNER

Lewis's essay appeared in 1947 before Skinner's best-known works, but he presents an "Innovator" challenging him in tones remarkably like Skinner's:

You say we shall have no values at all if we step outside the *Tao*. Very well: we shall probably find that we can get on quite comfortably without them. Let us regard all ideas of what we *ought* to do as simply interesting psychological survivals: let us step right out of all that and start doing what we like. Let us decide for ourselves what man is to be and make him into that: not on any

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ground of imagined value, but because we want him to be such. Having mastered our environment, let us now master ourselves. . . .<sup>26</sup>

This is a coherent and possible position, and Lewis faces it as such. Its consequences, however, lead beyond freedom and dignity to—again the title of the essay—the abolition of man. They do so, in the first instance, because man's power over nature is in reality a power possessed by some men which they may or may not allow other men to profit by. In addition to the power of nation over nation, majority over minority, government over people, there is the often overlooked power of earlier generations over later ones: "The real picture is that of one dominant age—let us suppose the hundredth century A.D.—which resists all previous ages most successfully and dominates all subsequent ages most irresistibly, and thus is the real master of the human species."<sup>27</sup> Skinner, to be sure, did not flinch from "the real picture" as Lewis had seen it. In *Walden Two* a bumptious humanist challenges the Grand Conditioner: "When you first laid your plans . . . you were setting the stage for the withdrawal of yourself as a personal force, knowing full well that everything that happened would still be your doing. Hundreds—you predicted millions—of unsuspecting souls were to fall within the scope of your ambitious scheme. . . . You are implying that T. E. Frazier, looking at the world from the middle of the twentieth century, understands the best course for mankind forever." The Grand Conditioner answers: "Yes, I suppose I do" [*sic*].<sup>28</sup>

The Innovator or Grand Conditioner, like the Grand Inquisitor, must choose the motives which, for his own good reasons, he will produce in the human race. But how will he be motivated himself? For a time, perhaps, by survivals, within his own mind, of the old *Tao*. Thus at first he may see himself as the guardian of humanity with a "duty" to do it "good." But it is only by confusion that he can remain in this state, for the very words "duty" and "good" imply the old value system and so are meaningless in the new context. The Innovator is not a man who has been "corrupted by power" (the old ethical language again) but rather is one who stands outside all judgments about corruption and integrity and so—quite simply—has no ground for preferring one of his impulses to another.

It may seem reasonable to imagine the Innovator practicing a kind of golden rule: "I like food, sex, amusement, art, science, and long life. I shall condition my fellows in the way most likely to guarantee them what I wish for myself."<sup>29</sup> In fact, such imaginations are no more likely than their reverse: There is no reason why the ethical Innovator should not practice the leaden rule rather than the golden.

If the thought occurred to him to induce want, inhibition, boredom, and ignorance, on no basis could he be obliged to reject the thought. In a world of constructed, conditioned morality, mankind's happiness would ride on the chance that benevolent impulses would predominate as the Conditioner made his choices. And, since this predominance would be a question of health, heredity, digestion, and the thousand natural shocks that flesh is heir to, man's conquest of nature would be, at the moment of its consummation, nature's conquest of man.

Rendered thus explicit, the ethical theory behind conditioned morality can be held at bay. But, Lewis suggests, there is every likelihood that a college like Julian's would have left it implicit, an assumption—the more pervasive for being unexamined—that all morality was “made up” and so, in the last analysis, no more obligatory than its maker and enforcer was powerful. Speaking of the philosophical inferences he had made from the schoolbook treatment of reactions to a waterfall, Lewis wrote: “I do not mean, of course, that the student will make any conscious inference from what he reads to a general philosophical theory that all values are subjective and trivial. The very power of Gaius and Titius depends on the fact that they are dealing with a boy: a boy who thinks he is ‘doing’ his ‘English prep’ and has no notion that ethics, theology, and politics are all at stake. It is not a theory they put into his mind, but an assumption, which ten years hence, its origin forgotten and its presence unconscious, will condition him to take one side in a controversy which he has never recognized as a controversy at all.”<sup>30</sup> In O'Connor's story, when Julian says to his mother, unaware that she is dying on the sidewalk before his eyes, “What all this means . . . is that the old world is gone. The old manners are obsolete and your graciousness is not worth a damn,”<sup>31</sup> we may well see him taking a side in a controversy which he does not recognize as a controversy at all.

The philosophy which Lewis discerned in a late 1940s textbook is logical positivism of the sort that received its most popular formulation in A. J. Ayer's *Language, Truth, and Logic*, a volume published in 1946 but drawing on work done at Vienna and Oxford in the 1930s.<sup>32</sup> This philosophy was indeed controverted; and perhaps Ayer's great merit is that the simplicity of his presentation exposed the contradictions in, and so facilitated the rejection of, the movement he recapitulated. As so frequently happens, the hot topics of the social sciences and the humanities in any given decade are the hot topics of the previous decade in philosophy. It is no surprise then to find a philosophy in poor repute among philosophers turning up as fresh wisdom in a literature textbook, nor is it any surprise to find Lewis—a

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literary critic turned theologian—building an unrecognized positivist assumption or two into his defense of moral tradition. But to say this of Lewis is to take nothing away from the brilliance with which he traces the insinuation of tradition-hostile theory into classroom instruction which purportedly propagates tradition. It is this about “Abolition of Man” that makes it a response before the fact to Campbell’s address.

### EPILOGUE AD HOMINEM

The two questions with which I began this essay were: (1) What sort of person is drawn to the social sciences, and (2) when such a person becomes a college professor, what sort of character formation occurs around the edges of his instruction? Campbell’s answers to these questions constitute only the brief, concluding suggestions in a lengthy paper dealing principally with biological and social evolution. In most of the foregoing remarks I have been engaged in enlarging on those suggestions from personal experience and from otherwise unrelated reading. It is time now to allow Campbell to speak for himself.

What sort of person is drawn to the social sciences?

The recruitment of scholars into psychology and psychiatry (as into literature) may be such as to select persons unusually eager to challenge the cultural orthodoxy. In fact, the social and behavioral sciences do overlap much more in knowledge claims with traditional moral belief systems than do nonhuman biology, chemistry, and physics. It is a prerequisite to a scientific approach in the social sciences that investigators be willing to challenge the cultural orthodoxy. But a science with this entrance requirement may end up recruiting persons who are not only willing to make this challenge but in fact overeager to do so.<sup>33</sup>

Campbell notes that, where the discipline of experimentation is available, such motivational biases might have less long-run effect but adds that here such discipline is unavailable. Furthermore, any initial bias toward unorthodoxy is further reinforced by the great rewards which accrue to scientific innovation and the undeniable pseudoinnovation which frequently is the result.

What is the impact of this personality type in the college classroom?

If, as I assert, there is in psychology today a general background assumption that the human impulses provided by biological evolution are right and optimal, both individually and socially, and that repressive or inhibitory moral traditions are wrong, then in my judgment this assumption may now be regarded as scientifically wrong from the enlarged scientific perspective that comes from the joint consideration of population genetics and social system evolution. Furthermore, in propagating such a background perspective in the teaching of perhaps 90 percent of college undergraduates (and increasing

proportions of high school and elementary school pupils), psychology may be contributing to the undermining of the retention of what may be extremely valuable, social-evolutionary inhibitory systems which we do not yet fully understand.<sup>34</sup>

There follow in Campbell's article some practical suggestions. I could offer others from my own experience. But the readers of this review are themselves, in the main, educators with a wealth of practical experience on which to draw. They may best be left to write a few concluding paragraphs for themselves.

#### NOTES

1. Donald T. Campbell, "On the Conflicts between Biological and Social Evolution and between Psychology and Moral Tradition," in this issue.
2. Flannery O'Connor, "Everything That Rises Must Converge," in *Everything That Rises Must Converge* (New York: Farrar, Straus & Giroux, 1965), p. 12.
3. *Ibid.*, p. 6.
4. *Ibid.*, p. 21.
5. Campbell.
6. *Ibid.*
7. *Ibid.*
8. *Ibid.*
9. *Ibid.*
10. *Ibid.*
11. *Ibid.*
12. *Ibid.*
13. *Ibid.*
14. O'Connor, p. 12.
15. *Ibid.*, p. 4.
16. B. F. Skinner, *Walden Two* (New York: Macmillan Co., 1948); Ayn Rand, *Atlas Shrugged* (New York: Random House, 1957).
17. O'Connor, p. 11.
18. Skinner, p. 86.
19. C. S. Lewis, *The Abolition of Man; or Reflections on Education with Special Reference to the Teaching of English in the Upper Forms of Schools* (New York: Macmillan Co., 1947), p. 2.
20. *Ibid.*, p. 9.
21. *Ibid.*, p. 16.
22. *Ibid.*
23. O'Connor, p. 7.
24. Lewis, p. 19.
25. *Ibid.*, p. 26.
26. *Ibid.*, p. 33.
27. *Ibid.*, p. 37.
28. Skinner, p. 146.
29. *Ibid.*
30. Lewis, pp. 3-4.
31. O'Connor, p. 21.
32. A. J. Ayer, *Language, Truth, and Logic* (London: V. Gollancz, Ltd., 1946).
33. Campbell.
34. *Ibid.*