

# Personhood & Superstition Part III (of IV)

Lawrence E. Fraley

West Virginia University

[Presented here is the third of four related works. These works are (a) "The Nature of Personhood," (b) "More Implications of Misconstrued Personhood," (c) "Cultural Investment in Superstition," and (d) "Behavioral Engineering to Reduce Superstition." These four pieces are all excerpts from parts of "Person, Life, and Culture," a later chapter of the author's book, *General Behaviorology: The Natural Science of Human Behavior* (Fraley, in press). The relevance of these pieces to managing improvements in ongoing cultural concerns increases their interest to readers of this journal. The four pieces are presented, one at a time, in consecutive issues beginning with the Spring 2006 issue (Volume 9, Number 1).—Ed.]

## Cultural Investment in Superstition

Superstition, according to the definition of that term in reputable dictionaries, commonly manifests in the form of an irrational assumption that an object, an action, or a circumstance that is logically unrelated to a course of events nevertheless influences its outcome. Superstitious behavior also often appears in the form of a practice or rite that is maintained irrationally in the apparent belief that it will have some measurable effect on real events, although that practice or rite has not been demonstrated to exert a relevant and measurable functional effect on those events. Thus, superstition may be defined in terms of an invalid assumption, or in terms of certain patterns of behavior that such an assumption may share in controlling. The practitioners of such superstition act in disregard of what are called the laws or principles of nature. The functionality that inheres in the kind of relations that qualify nature as such implies that, beyond coincidence, superstitious activity is ineffectual and, further, that explanatory recourse to it is redundant.

## The Intrusion of Superstition into Academia

Within contemporary human culture, the promotion of superstition, considered collectively, ranks as the largest ongoing metaprofession, even though superstition, when explicitly labeled as such, is somewhat unfashionable throughout most of the culture. Only within limited subsets of the general culture do purveyors of explicit su-

perstition find open acceptance (e.g., among those who are fascinated by occult lore and practices).

Beyond that minority, whose members are explicit about the superstitious foundations that underlie the kind of activity that they promote, others cloak their advocacy of superstition behind facades that imply what seem to be more respectable intellectual approaches. Thus, what amounts to superstitious behavior may be described in more acceptable terms by both its promoters and its exhibitors.

A common example is provided by persons who purport to study and teach about what they call the *human mind* as a proactive and seminal generator of human behavior, and who do so with the secure and respectable status of the scientific and scholarly academician. Such an account for behavior typically invokes the services of a behavior generating, behavior initiating, and hence responsible mental self-agent. That broad class of familiar accounting typically posits a mysterious intrinsic force that is conceptually invested with the convenient endowment of whatever powers may be required to produce observed behavioral effects. A simple statement such as *I chose to leave* is implicitly accepted as having been correctly cast, and the scholarly challenge to account for the *I* and how it accomplished the choosing become subject matters of academic concern. However, the conjuring of spirits to explain effects is a qualitatively discredited intellectual alternative to the functional accounting that is presumed to underlie academic scholarship. Therefore, such recourse to superstition must be disguised elegantly if it is to occupy a reserved seat in academe.

In the case of respected academicians who assume the existence of the proactive mind, the general respect for science and scholarship that has been established by the traditional work of natural scientists is co-opted ...first, through the pretense that that mentalistic superstition falls within the purview of respectable academic scholarship, and second, through the extensive practice of good scientific method in pursuit of what those scholars regard as the practical implications of their fundamental fallacy. That basic fallacy can easily become obscured beneath a vast and rapidly accumulating literature even though that fundamental fallacy roots the prevailing discipline in superstition. Within the culture at large it is widely if unwisely assumed that a doctor of philosophy, working within a contemporary university, will be focusing scientific activity on the implications of philosophical assumptions that have been induced from objective data rather than merely accepted from a cultural menu of unobjective lore.

However, in some cases, especially outside of the academic arena, the superstitious nature of certain patterns of intellectual activity cannot be disguised so easily. If the obtrusively superstitious behavior would otherwise evoke social censure, programs of socio-cultural counter-con-

trol may be mounted to exempt those forms of superstition from social punishment and to render them socially respectable regardless of their obvious superstitious nature. Thus, the promoters of a particular class of superstition may cast it in euphemistic terms that make peoples' personal investments in such superstition seem virtuous and appropriate. An example is the general social demand for the public respect for religious devotion, which may be imposed throughout a culture. In addition, the superstitious activity may be protected with the sanctions of law and government. The agency of education may explicitly promote tolerance for such superstitious alternatives to more demanding exercises of the human intellectual capacity.

The vast scale of recourse to superstition within the general human culture has attracted the attention of some scholars who seek to account for its frequency and endurance by appealing to the evolutionary history of the species. They often regard the seemingly universal recourse to superstitious accounts as the manifestation of an innate human trait. That is, they assume that explanatory recourse to superstitious accounts is just another of the many kinds or patterns of universally observable behavior that are shared by the people of all cultures. In addition to the propensity for superstition, other behavioral examples that are touted as being driven by innate traits pertain to (a) the universally common grammatical forms that manifest across different linguistic communities, (b) universally common forms of humor, and (c) the universal social prohibition of unlimited access to sexual activity (to name but a few of the many that have been recorded). In such explanatory appeals to the species gene pool, universally common patterns of behavior are attributed to what are assumed to be genetically inherited behavior-driving traits that characterize the human species.

Such a miscasting of the issue ignores two basic principles. First, genes directly govern only body structure, not behavior, and genes can affect behavior only indirectly insofar as they determine the structures that must mediate any given behavior. Thus, to utter the word "*uncle*" one must have the kind of bodily sub-structures that support such a vocalization (those substructures are the genetic contribution). However, whether or not those structures will behave so as to produce the sound that we interpret as the word "*uncle*" depends on (a) a conditioning history that renders the necessary body parts capable of coming under stimulus control of specific kinds of environmental events and (b) the subsequent occurrence of such an environmental event in the presence of that body (a.k.a. contact with the necessary kind of evocative stimulus).

Given such a conditioning history, an occasion to say the word *uncle* pertains to a contingency that features an appropriate contact with a stimulus that will then evoke precisely that vocal behavior. The term *contact* implies a transfer of energy from the environmental event (the

stimulus) to the appropriate behavior-capable body part. Thus, genes can only produce body structure that can then undergo the necessary conditioning for a particular kind of environment-behavior relation, but even an appropriately conditioned body must then await an environmental contact with an appropriate kind of stimulus before a response of that particular kind can occur.

As may be noted, a tall and well coordinated person may never have learned to play the game of basketball, and during a particular basketball game even an experienced player with the ball in hand may have failed to shoot, never having been presented with an unobstructed path to the basket. In the former case, a genetically well structured body had not been neurally microstructured to mediate the kind of behavior called "playing the game," and in the latter case, a body that, structurally, was both genetically prepared and behaviorally conditioned did not contact an evocative stimulus for shooting the ball. In common terms, the first person was not microstructurally ready, and the second person, although ready, had no opportunity.

The second basic principle ignored in explanatory reliance on genetically inherited behavior-determining traits is this: Given that, except for some basic unconditioned respondents, all behavior must be conditioned, universally exhibited patterns of operant behavior must necessarily represent universal contingencies of reinforcement that affect nearly everyone in a somewhat similar way. Universal patterns of behavior indicate that each individual, regardless of that person's culture, has become conditioned to exhibit common patterns of behavior when under given circumstances. If, on appropriate occasions, the members of every human culture express the past tense, inject humorous insults into conversation, and participate in restraining the unfettered pursuit of sexual gratification, such universal behavioral commonality, while enabled by the presence of the necessary body parts, occurs on appropriate occasions because the contingencies under which such behaviors are conditioned are universally imposed. To some degree such universal contingencies will have affected nearly everyone—hence, those functionally controlled similarities in almost every person's behavior.

The discovery of a universally similar pattern of behavior should evoke scholarly searches, but not for some ill-defined internal causal nexus called a trait (which results in the intellectual abortion of the appropriate line of inquiry). Instead, people should search for the underlying universal contingencies of reinforcement that produce the common behavior and then for the kinds of environmental conditions that subsequently tend to evoke the pattern of activity that is universally common. If the universal behavior manifests on appropriate occasions in social contexts and involves practices that must be taught to each individual, investigators should work to specify the contingen-

cies that compel people everywhere to condition others to behave in that common manner on such occasions.

In the absence of this distinction between false and valid kinds of accounting, many prominent analysts tend to invent what they argue are internal genetically determined sources of behavior, which are proffered to account for the occurrence of such universally common behaviors. They argue that such common patterns of behavior represent innate universal human "traits."<sup>1</sup> Ignoring the universality of some kinds of contingencies of reinforcement, they appeal instead to assumed genetic determinants to account for such universally similar behaviors. They may entertain the notion of what are called genetically determined "deep structures" that they presume to be characteristic of every human "mind" and which somehow originate and orchestrate the kind of behavioral manifestations that define universally common patterns of behavior. Such a so-called deep structure may represent a scholarly obfuscation of the mental self-agent. In other cases, physiological analyses of deep structures may carry to an erosion of all implications that deep structures pertain to the capacity of a mental self-spirit. Such inquiries may reduce deep structured traits to what is seemingly little or nothing more than genetically determined neural structure. That still leaves neural structure with the imposition of an impossible burden. Brain parts can only mediate behavior but not initiatively generate it.

Such analysts of common behaving often come to their studies with a predilection for concepts of an innate human behavioral nature, although common patterns of behaving actually manifest operantly. Such people too readily accept a widely exhibited pattern of behavior as evidence of a built-in predisposition somewhat analogous to the programming that characterizes the behavior of electronic devices. That kind of mistake has been enabled partly by training programs during which those now reputable analysts actually got little or no training in the natural philosophy and science of human behavior. Typically, by the time they may face challenges to their superstitious basic assumptions from the natural science community, they are already far too professionally invested in the alternatives to the natural science perspective to deviate from their established professional course.

---

<sup>1</sup> Recall that behavior is triggered by energy inputs to bodily structure. A resulting behavior then occurs as the automatic or inevitable response of such a structure to such an energy input. The structure that awaits such energy increments will have been arranged in two basic ways—first, genetically, which produces innate body structure, and second, operantly and respondently, which involve behavioral conditioning processes that alter certain neural microstructures during the lifetime of the individual organism.

The invalid implications of such false origins of common behavior are currently pursued with sufficient extensity to generate the subject matters of formally organized disciplines. Currently, far more doctorates are now being awarded to those who pursue the fallacy of innate causal traits than to those who analyze the phenomenon of universal behavioral commonality in terms of the universal contingencies under which such commonality is inevitable.

### ***The Cultural Cost of Superstition***

The extensive and intense investment in superstition within contemporary human culture is costly, because any sequence of behavior that is informed by events divorced from reality may have to be reconciled eventually with events that comport with reality. Typically, the divorce becomes increasingly difficult to maintain in the presence of the general kind of sociocultural progress that is called *enlightenment*.

Nevertheless, one may delay or avoid that reunion with reality by behaving in ways that avoid potential conflicts. One common approach is the self-management practice known as *compartmentalization*. That term refers to conditioned behavior by which each encountered event is interpreted either superstitiously or objectively, depending upon the class in which that event can be categorized most conveniently.

Thus, on the one hand a farmer may engage exclusively in strict scientific agricultural practices while engaging in superstitious rituals pertinent to the weather. A chemist who is employed in a laboratory to develop a faster working drug and does so with strict scientific objectivity may account for the diversity of species in the woodlands behind his domicile with the assumption that those representatives are the descendants of ancestors who were fortunate enough to have found a place on Noah's Ark. Such compartmentalization tends to rely heavily on ignorance of the natural phenomena that are regarded superstitiously. That farmer is probably unschooled in meteorology as is likely the chemist in both evolutionary biology and geology. In these examples, the implications pertinent to the nature of the formal curriculum that prevailed during such peoples' general education are obvious.

Unfortunately, superstitious assumptions tend to keep one from objective contact with any aspect of reality about which one cannot afford to get scientific as a result of the implications of that indulgence. That is, given some natural phenomenon, suppose that a person is conditioned to react superstitiously to its characteristics and is deeply involved in the compounding implications of that superstitious behavior. In that case, usually due to a course of punitive suppression, the superstitious behavior typically tends to occur without any accompanying practical behavior that would be incompatible with the ongoing superstitious reactions. That fact is acknowledged in

common wisdom by the observation that the person who seriously entertains superstitious assumptions and who is heavily invested in their implications, *beyond not knowing any better, doesn't dare to know any better*. When considering the potential introduction of a more objective approach to superstitious people it must be taken into account that many of them have far more to lose than some invalid ideas. Among cures for such a predicament, the approach that is least fraught with troublesome implications is preclusive in nature. That is, the intervention should come antecedently by not permitting superstitious indoctrination in the first place.

Thus, an important aspect of the analysis of an individual's superstition is the delineation of the range of reality to which that superstitious person cannot readily afford to respond with scientific objectivity. Such objective responding, being incompatible with that person's superstitious assumptions, would threaten that person's personal investment in the implications of the superstitious behavior, ...a personal investment that in many cases will have become substantial.

Consider, for instance, a person who has a well matured personal investment in the presumed efficacy of chanting. That individual may believe that chanting a particular mantra each morning will prevent one's infection with the AIDS virus with no need for additional precautions. Let us further suppose that this individual's comfortable livelihood is earned by teaching classes in the proper chanting technique to large numbers of tuition paying students who need protection from the AIDS virus. This person's public credibility stems from his or her exhibition of a wide variety of behaviors that imply a strong personal belief in the efficacy of such chanting, a belief that would be threatened by the relevant medical and social principles of viral infection.

Thus, such an individual benefits professionally by remaining largely ignorant of the mechanisms of viral infection and the relation between certain social practices and the transmission of the live disease-producing viruses from one body to another. To behave as if such facts were valid would pose an indirect threat to that individual's personal investment in the general superstitious activity of chanting. To the extent that such facts have become conditioned aversers, a contact with the stimuli definitive of such facts evokes (i.e., is reliably followed by) avoidance behavior. In common but invalid agential terms, the person is said to ignore such facts.

Another example is provided by an individual who invents traits as needed to explain behavior and who is personally much invested in assumptions about traits and in the pursuit of their implications. Such a person may believe that one who donates regularly to charity does so because of an innate causal trait called *generosity*. To protect the personal investment in that easy kind of explanation, that person

must then remain ignorant of the usually more compelling behavioral history that conditioned and shaped the kind of behavior described as generous and rendered that behavior inevitably susceptible to control by certain environmental stimuli. Such a correction of any particular trait-related fallacy can threaten the person's much broader investment in that general kind of superstition. Suppose, for instance, that the person is an academician whose professional reputation is based on extensive scholarly publications that posit intrinsic causal traits and purport to explain how such traits proactively initiate relevant patterns of behavior from within the individual.

A fine distinction exists between behaving superstitiously and behaving mistakenly. Superstitious behavior is a subclass of mistaken behavior. It is the irrationality that qualifies behavior for the superstition category, and irrationality is a term of perceived neglect of prevailing function. If a perceived neglect of function is the obvious result of insufficient data, the behavior tends to be classified as a mere *mistake*. On the other hand, If that perceived neglect of function persists in the presence of ample objective data pertinent to the relevant relations, the reactive behavior tends to be classed as *superstitious*.

For example, the sudden emergence of the solution to a problem after a period of neglect may be attributed to the interim workings of a subconscious mind that in some latent way has been thinking proactively about the problem. The privacy of such presumed subconscious thinking remains impenetrable to the otherwise preoccupied individual in whom it putatively is occurring. Given only the sudden emergence of the solution via publicly evident behavior and absent the behaviorological science by which to construct a more parsimonious account, we may refer to the assumption of a latently churning subconscious mind as a potential mistake. That classification may be supported by the magnitude and complexity to which a natural account of such a speculative phenomenon would seemingly have to be carried.

However, in the ample presence of such a relevant natural science and its common application to such issues, we begin to describe continued adherence to the mistaken account as stubborn, and then as irrational, and eventually as superstitious. By that time, in the view of those who apply such labels, the practices in question are irrationally maintained even though the basis for a natural and alternative account stands revealed. That progressive categorization is a function of the accumulating counterevidence that must be having no effect while the original mistaken explanation continues to prevail.

The superstitious label tends to be favored when the irrational neglect of available evidence is maintained by threats that are implicit in ideology. Thus, opposition to a simple medical procedure to remove a dangerously inflamed appendix on the grounds that that operation

would interfere effectively with a fate that was preordained by God is more readily regarded as superstitious than if the opposition is mounted by a person who merely has no conditioning history with modern medical practices and hence cannot confidently predict a favorable outcome from such a procedure. The former stance is likely to be regarded as a superstitious argument; the latter, merely as the ill-informed kind that is commonly attributed to ignorance (viz., a mistake).

The various implications of superstitious activity may pertain to important personal issues that range across a person's total experience far beyond a more narrow issue to which a current debate may pertain. For that reason people who are heavily invested in a general class of superstition may be unable to afford the loss of the investment that is implicitly threatened by the kind of alternative accounting that natural science affords in any single case even when the issue is narrowly focused. For instance, the person who would continue to insist on the reality of the Noah's Ark myth must remain unaffected by substantial aspects of geology, meteorology, and evolutionary biology with which various aspects of that particular myth are respectively incompatible. Typically, any exhibit of scientific logic that implicitly impugns the reality of the Ark story may generalize to other issues with respect to which equally superstitious accounts justify various important activities.

The person's general investment in superstition and its far ranging personal implications are protected as long as that individual's behavior is free of control by the alternative natural science—especially behaviorological science, which is the science that accounts for superstitious behavior per se and for the relation of superstition to all other classes of behavior. The kind of accounting that characterizes the natural sciences may be met with extreme resistance even on a minor issue, lest any indulgence in naturalism represent a breach through which the continued flow of scientific logic cannot be stanchd. Even when superstitious people are occasionally compelled to adopt a selected scientific practice as may be necessary for an important practical result, they typically eschew the philosophy of naturalism by which that outcome is subject to valid interpretation and through which the particular scientific practice that produced it is subject to quality-controlling maintenance. Included in what must then be avoided is training in the relevant natural sciences and in the philosophical foundation called naturalism that has emerged inductively through formal scientific activity and through behaving objectively in general.

When superstition prevails it often tends to preclude effective practical action, because effective action involves interventions among the variables in the functional relations that are neglected in superstitious accounting. More specifically, superstitious accounting, in providing an easy

fictitious account, precludes searches for real functional independent variables, and if one has not identified a functional independent variable, then one is not in a position to effect changes in it that will produce a specified and desired change in the dependent variable of concern.<sup>2</sup> When contingencies that favor effective practical action become strong, and the effective action must necessarily respect the relevant prevailing functional relations in rather conspicuous ways, important counterproductive superstitious assumptions about the relevant events may tend increasingly to be maintained with discomfort. Thus, many superstitious assumptions are entertained comfortably only in the absence of valid and compelling descriptions of the functional relations that account for those events.

For example, within our culture, we cannot develop effective practices for dealing with the realities of slow and differential dying as long as life is presumed superstitiously to represent the presence of a sacrosanct spirit and death, its departure—all according to the will of a greater mystical entity whose unfathomable intentions we dare not (and presumably could not) thwart. Furthermore, those who entertain such superstitious ideas may suspect that any inevitably futile human effort to probe or question the intentions or methods of such an omnipotent entity could be deemed presumptuous by that entity—a being with whom mere mortals are presumably in no position to negotiate.

Many people argue that superstition is necessary insofar as it permits individuals to cope with their behavioral inadequacy when confronting the various and often unpredictable adversities that are posed by their environments. Thus, recourse to superstition is often prescribed as a palliative by which to contend with what Shakespeare called "the slings and arrows of outrageous fortune." Superstition is also touted for its therapeutic circumvention of the anguish that is imposed on each individual when contemplating the ultimate futility of the biological imperative to survive. It can be argued that the human species is not yet sufficiently evolved intellectually, perhaps in the biological sense and certainly in the cultural sense, to avoid a substantial indulgence in superstition regardless of the various reductions in well-being that it may cost.

When considered at the sociological level, superstitiously informed practices are found to contribute substantially to the prevailing cultural integrity, although a

<sup>2</sup> Note that the common phrase *desired change* alludes to the contingencies under which the desirous individual is behaving. The effect that one is under contingencies to produce is described as the *desired change*. A *desire* is a fictional, behavior-compelling, internal force that is commonly substituted for an account featuring environment-behavior functional relations.

too narrow focus on that fact may beg the question of whether a better kind of cultural integrity is possible. Still other apologists for the arguably pathetic human susceptibility to superstition attempt to put a noble spin on superstitious behavior by treating a complete surrender to certain forms of it, especially to the religious varieties, as a worthwhile exercise of the human intellect. Such arguments have been employed to lend respectability to certain forms of superstition at all levels and in all facets of human culture.

From an alternative perspective, recourse to superstition can be construed as evidence of intellectual immaturity, whether of individuals or of the human species as a whole. From this perspective, recourse to superstition is regarded as a shortcoming that is laden with potential threats to human well-being. Although an easy susceptibility to superstition is often said to reflect the current stage of natural human progress, in a less accepting view it can also be said to represent some accidental and relatively inferior intellectual output from a species that, although it remains under evolutionary development, as a whole currently performs well below its optimal potential. Thus, especially at a cultural level, programs of intervention to suppress and preclude recourse to superstition in favor of more intellectual exercises would seem worthwhile insofar as such programs would feature desirably accelerated exercises of the human intellect in ways that comport with the natural course of human evolution.

Thoughtful and reputedly enlightened people sometimes ask whether (a) the superstitious approach or (b) the natural science approach can produce the best prescriptions for coping with the pressing behavioral issues that characterize contemporary human culture. Typically they point to a specific behavior-related issue that seemingly requires the kind of intellectual treatment that matches their predilection. A perspective that regards superstitious ways of knowing as unworthy in *all* contexts implicitly challenges its adherents to design new cultural practices that afford better solutions to the kinds of seemingly intractable problems that traditionally have fueled recourse to superstition.

At the cultural level, we are confronted with the frequent resort to warfare and with the dissension and discord that swirls around sociobehavioral issues such as euthanasia, abortion, criminal justice, economics, governance, health care, and welfare, among others. Many people ponder whether the most effective coping practices are (a) those that follow as implications of superstitious assumptions or (b) the objectively focused actions that follow as implications of naturalistic assumptions. The question may seem especially urgent when the problems that are to be solved via one approach or the other pertain to how and why people are behaving in ways that have critical implications, whether of a reinforcing or aversive nature.

That such a dichotomy of intellectual approach is currently the subject of serious consideration represents one kind of measure of the intellectual maturity of the human species. No matter how embellished with scholarly affectations, recourse to any kind of superstition, including the traditional agential attribution to humans, is antithetical to natural science, and it arguably represents an intellectual deficiency when it occurs under contingencies to produce valid accounts. Except by rare accident, superstitious accounts are demonstrably irrelevant to practical matters and may prove to be fraught with detrimental implications. Recourse to superstition amounts to a kind of surrender to current incompetence when in most cases an acknowledgment of ignorance would not only be safer but would establish the conditions under which searching continues for valid objective accounts and for the kind of reliable interventions that they inform.

The common tendency toward implicit agential attribution to human beings may in some cases represent avoidance behavior. Insofar as doing so passes as fashionable among people given to mystical interpretations of human beings and their behavior, such casual attributions fail to attract critical scrutiny from the enforcers of the predominant superstitious ideology. Some natural scientists with nonbehavioral specializations may gain some personal elbow room in which to pursue their own work by reflecting that popular form of behavior-related superstition. A kind of personal social security is thereby purchased at the expense of the integrity of the broader natural science community in which they claim membership.<sup>3</sup>

---

<sup>3</sup> A rather stark example may occur when a natural scientist, seeking employment, can find work only on the faculty of a religiously sponsored university that screens its faculty members for adherence to the ideology of the sponsoring agency. If the interface between scientific objectivity and the prevailing superstition can be kept beyond that scientist's operational situation, then the objective scientific work by that scientist in his or her specialization can be conducted in that setting without personal conflict. However, that scientist must insure his or her job security with displays of deferential respect for the prevailing ideological superstition in ways that almost necessarily contradict the work of at least some other natural scientists working elsewhere on certain other kinds of natural phenomena. To the extent that a natural scientist thus disrespects the objective approach of other scientists by investing the phenomena that they study with a sacrosanctity that is impermeable to objective science, the integrity of the natural science community is eroded. The nineteenth century work of Gregor Mendel, who was university trained in natural science and mathematics, featured objective scientific methods in sorting out the genetics of pea plants. His objectivity was not

Improvement of the general human intellectuality occurs in various ways. These include (a) the naturally occurring biological evolution of human intellectuality, which seems to occur very slowly and is difficult to control, (b) interventions to improve intrinsically the nature of human neural systems, which normally must be undertaken with respect to one person at a time and which currently is of limited technological feasibility, and (c) the improved education of contemporary individuals. Potentially, the education-related approach can be accomplished rather rapidly, but on a large scale it is expensive in proportion to the current levels of educational funding that governments allocate. Furthermore, curricula that would promote general intellectuality by explicitly exploring the relative quality among ways of knowing would tend to be resisted by those whose prosperity somehow involves the exploitation of superstitious people as well as those over whom they exert control.

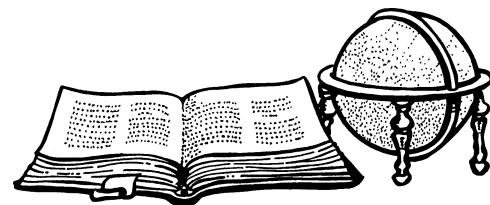
Our global culture is heavily invested in various forms of mysticism, often with far reaching implications. Governments that represent superstitious majorities tax their citizens to pay for a kind of educational system that protects the local cultural investments in superstition. Within most current human subcultures, an education curriculum from which all substantial recourse to superstition had been removed would probably be permitted only with stringent restrictions and limitations, and therefore would probably be feasible only on a small scale. Perhaps in private institutions that are rather exclusively supported and controlled by a natural science subcommunity, a curriculum could be established that is (a) relatively free of superstition, (b) teaches explicitly the nature of superstition, (c) considers why and how superstition arises, (d) explores the implications of indulgence in superstition at the personal and cultural levels, and, finally, (e) compares and contrasts superstition with scientific objectivity with respect both to scientific and philosophical kinds of behavior.

Some would argue that it is for naturalists to demonstrate, with respect to one sociocultural problem at a time, how consistent respect for natural reality fosters the better solution. Indeed, as behaviorology continues to mature and become an established discipline within the culture that sort of thing will occur inevitably with respect to important behavioral problems just as it has with respect to nonbehavioral problems whenever the physicists, chemists, or biologists have addressed them. However, at a more fundamental level, it may be of greater

importance to demonstrate, in general, why only the objective approach can lead reliably to effective outcomes and why a superstitious approach is but a palliative for coping with ineffectiveness. Common wisdom may hold that superstition has been discredited to a substantial degree in modern human culture, but that trend has pertained only to some rather peripheral if conspicuous superficialities. An objective supersession of the more intrinsic forms of cultural superstition portends cultural revolution on a much grander scale.

## References

- Fraley, L.E. (in press). *General Behaviorology: The Natural Science of Human Behavior*. Canton, NY: ABCs.  
 Skinner, B.F. (1953). *Science and Human Behavior*. New York: The Free Press.☞




---

compromised by the fact that he was a devout monk living and working in a monastery. We can only speculate about Mendel's regard for the work of other natural scientists in cases where their findings would have challenged in a more direct way the ideological foundations of his religious commitment.