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# Creationist Resistance to Evolution: the Patriarchal Unconscious as the Key

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**Creationist Resistance**  
**to Evolution:**  
**The Patriarchal Unconscious**  
**as the Key**

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LADELLE MCWHORTER

Enlightened scientists and educators everywhere lament the persistence of disbelief in the process of evolution through natural selection, but they have done little to illuminate the psychological basis of this resistance. This neglect unfortunately applies even to psychoanalytic commentators, who, while uncovering oedipal elements in evolutionism, have remained silent about creationism. We believe, however, that psychoanalysis has much to offer toward a solution of the problem of creationism's persistence. In particular, we propose that evolutionary theory stirs a profound fear, rooted in the psychosexual developmental processes characterizing human society thus far, of female power.

OEDIPAL EVOLUTIONISM

It is Darwin's illness, not creationism's persistence, that has been the main focus of psychoanalytic interest. This focus, however, also has produced a coherent interpretation of his evolutionary theory. Colp (1977), in a comprehensive volume on the subject of Darwin's health, summarizes ably this small literature, concluding that these studies generally postulate that repressed hostility toward his father contributed significantly, in one way or another, to Darwin's illness. According to one especially succinct formulation, Darwin's symptoms—chiefly upset

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stomach and vomiting, various disturbances of the skin and heart, and sensations of "black dots" and "swimming head" (pp. 96-99) — were both a "distorted expression" of Darwin's unconscious hate for his "tyrannical" father and a self-inflicted punishment for that hate. His theory, then, was a "transposing" of the unconscious emotional conflict into a conscious intellectual one—a "typical obsessional" form of disguised oedipal rebellion through which he "slew the Heavenly Father in the realm of natural history" (Good, 1954, p. 106).<sup>1</sup>

Jones (1959) suggests that the discovery of the relation of natural selection to evolution "meant displacing God from His position as a detailed Creator specially concerned with mankind, and removing Him to an infinitely remote distance—at least in Natural Theology" (pp. 203-204). This phrasing calls to mind the plan regularly concocted by oedipal children, according to which the same-sex parent can go far away, perhaps to live with a grandparent; unconsciously, there seems little difference between sending people away and destroying them. Jones buttresses his case by attributing to Darwin the remark that asserting the mutability of species was "like committing murder."

These passages, which may be taken as representing, in broad outline, a straightforward Freudian view, cannot quite be accepted without qualification. First, Good's (1954) stereotyping of Darwin's father as "tyrannical," and the tacit assumption that having had such a father helps explain Darwin's illness and theory, is a voice from a past in which psychoanalytic concepts all too often were applied in a mechanical, grossly oversimplified way (Grabber and Miles, 1989). Second, Jones, in quoting Darwin, commits a parapraxis that, so far as we know, has not been noted previously in print. Darwin's remarkable comparison involved not "committing" a murder, but "confessing" to one. The occasion was a letter to botanist J.D. Hooker, dated 11 January 1844—apparently Darwin's first communication of his theory: "At last gleams

<sup>1</sup>Freud (1928) himself provided a story with a very different ending, in which arousal of oedipal impulses, and their transposal into religious symbolism, led not to denial of the Heavenly Father but to his affirmation. In this case, the sight of an old woman's body on a dissecting table stirred a medical student's feelings for his mother, accompanied by repressed hostility toward his father. Reaction formation against this hostility, displaced into religion, made the atheist into a theist. Perhaps nature can play a role analogous to that of the old woman on the dissecting table. Freud (1910) suggested that the study of nature can be a sublimation—the "highest attainable" by humans—of oedipal attraction to mother (p. 122). If naturalists are considered in this light, two reactions may occur: one, the pre-Darwinian, was a submissive affirmation of faith in God; the other, the Darwinian, is a rebellious denial of God—at least of God's direct control over life's development.

of light have come, and I am almost convinced (quite contrary to the opinion I started with) that species are not (*it is like confessing a murder*) immutable" (Darwin, 1896, p. 384, italics added). A likely interpretation of Jones's mental error is simply that "committing" would have been a bit more graphic than "confessing," given that Jones's immediate purpose was simply to argue for the parricidal symbolism in Darwin's theory. Yet Darwin's verb, by making the "murder" a *fait accompli*, more accurately describes his own dilatory behavior: he had formulated the theory earlier and by 1844 had been concealing the awful "crime" from everyone for years (Colp, 1977, p. 25). The commission was past; the time for confession had come.<sup>2</sup>

Despite such flaws in the particulars of its presentation, we find compelling the contention that evolutionary theory originated, in part, in repressed parricidal impulses. But what has that to do with evolutionism today? After all, the theory is no longer new, and many people seem to learn and accept it matter of factly. This is true but by no means proves that evolutionism has lost altogether the unconscious meaning it had for Darwin. Ours is still a society in which many people believe in God the Father, and not a few among them believe he created life suddenly in the forms we find today. It seems likely that, at least for people taught such ideas in childhood, evolutionism would continue to have basically the unconscious meaning it apparently had for Darwin.

#### CREATIONISM AS PARRICIDAL FANTASY

Supposing evolutionism to be, *inter alia*, symbolic parricide, we now demand "equal time" for creationism, not in the science classroom but on the psychoanalytic couch. Freudianism commits one to the possibility that the same impulse can express itself in different—and even apparently contrary—ways. Therefore, accepting the view that evolutionism can express parricidal impulses does not rule out the possibility that creationism too can express parricidal impulses. Because this proves to be the case, we shall need to look elsewhere for the fundamental psychological difference between evolutionism and creationism.

<sup>2</sup>We agree with Colp (1977, p. 125) that Darwin's fears about how his theory would be received were to a considerable extent realistic. These realistic fears concerned not only institutional and personal rejection, but also real deficiencies of the theory at that point. An interesting recent contribution (Richards, 1983) to the problem of Darwin's delay discusses his struggle with the deep problem posed by the adaptiveness of instinctual behaviors in sterile insect castes.

Recognition of creationism's suitability for symbolizing parricide was forced upon us by a creationist pamphlet, tellingly titled *Big Daddy?* (Chick, 1972). Denied permission to publish representative frames, we must content ourselves here with a relatively pallid verbal description. The pamphlet cover leaves little doubt as to what father is about to be slain—not the good Heavenly Father, but a bad, banana-munching Missing Link no upstanding citizen would want to call “Dad.” (“Could it be,” Nietzsche once asked mischievously, “that moralists harbor a hatred of the primeval forest?”) The pamphlet’s first page shows an ugly, oily-looking Professor of Anthropology confidently introducing his audience to the subject of evolution and symbolically identifies the professor with the primitive hominid whose portrait hangs behind him. Suddenly, Professor meets unaccustomed opposition from a clean-cut, impeccably polite Young Man who in subsequent frames refers to the Bible as the basis of his disbelief in evolution—eliciting a rude and obviously irrational outburst from Professor. Not to be intimidated, Young Man, remaining calm and reasonable, engages Professor in an extended exchange. Professor soon is perspiring profusely because every point he tries to make has been parried brilliantly—but always politely—by Young Man, who is gradually establishing beyond doubt, and to the growing admiration and glee of his classmates, his superior grasp of the data and theories involved. Freudian anthropologists impressed by recent arguments for a literal primal parricide (Paul, 1976; Badcock, 1980) may find especially significant Professor’s ominous regret at not having thrown Young Man out of the increasingly unruly class (“horde”?) when he’d had the chance. The *coup de grace* lands a few frames later when Young Man dazzles classmates and Professor alike by using nuclear physics (specifically, the positive charge of protons) to “prove” that it is the Bible, not science, that can truly explain why matter holds together. Finally, Professor, now even more clearly identified with Link, whose portrait he lugs, dejectedly departs the scene of his humiliating defeat at the hands of Young Man. The words OUR FATHER have appeared mysteriously beneath the portrait, as if to remove any doubt in the reader’s mind as to the directness of the competition between Heavenly Father and Missing Link—imagos, of course, of the “good” and “bad” father—for the hearts of humankind.

#### THE APOTHEOSIS OF MOTHER NATURE

Yet there is an important sense in which this competition is indeed not direct. Our evolutionary ancestors did not *control* the history of life on

earth and in that respect cannot fill the “power vacuum” evolutionism may appear, to a highly animistic unconscious, to create. If God did not guide and oversee the origin and development of life—at least not directly, though evolutionism surely allows God to lie behind the whole thing—Who or What did? It seems likely that in many people, especially those attracted to theistic notions, there is a special type of animistic projection, viz., an actual psychological need to place a more or less anthropomorphic force in charge of any seemingly orderly process or event. On this assumption, we immediately notice that evolution gives us the theory of *natural* selection; and, to be anthropomorphic about it (which is our explicit task), we suspect that the creationist unconsciously assumes that evolutionism fills the “power vacuum” by apotheosizing Mother Nature.<sup>3</sup>

We notice immediately that a fantasy of domination by mother differs from, and presumably would be less gratifying than, the typical oedipal fantasy of taking the place of the same-sex parent with the opposite-sex parent. Yet beyond this lie other psychodynamic factors, to be discussed later, that lead to the expectation that the fantasy of domination by mother would be not merely less than optimally gratifying, but positively disturbing. Infantile subordination to mother is among the tendencies that the individual must transcend developmentally; well may the mind reject an idea, such as evolution, if that idea threatens (unconsciously) to undo so hard-won a victory.

We believe, then, that the disturbing quality of the fantasy of mother domination (or of female power, in more general form) owes to dynamic factors; but the ability of the theory of evolution by natural selection to *stir* this disturbing fantasy is a problem of a different sort. That is, evolutionism becomes a credible trigger of the dynamically rooted fear only to the extent that we can establish a symbolic personification, in our cultural milieu, of nature as mother. Some might argue that ontogenetic dynamic processes alone account for this conceptualization, that each generation in effect produces it anew, though a given generation might *appear* to be receiving it as part of its social heredity from past generations. In that case, our theory would require no reinforcement by cultural and historical evidence. On that assumption, however, personification of nature as mother should either be culturally universal or vary

<sup>3</sup>The paired symbolic equations on which our paper is based, God-father and Nature-mother, were noted by Freud (1910): “. . . the almighty and just God, and kindly Nature, appear to us as grand sublimations of father and mother, or rather as revivals and restorations of the young child’s ideas of them” (p. 123).

only in response to the variations—apparently modest—in the degree of female responsibility for early child care; but we strongly suspect that cultures vary, in the presence and salience of this personification, far too much to account for in this way. If we are correct about this, the presence of such a personification—let alone a salient one—in a given society may not be assumed, but must be demonstrated; and because that personification is a symbolic artifact, the demonstration entails examination of cultural data. To that demonstration we now turn.

The image of nature as female is ubiquitous in our culture. From the “Mother Nature” who tries to sell us margarine, to the image of forests as “virgin,” to our dreams of the “Mother Lode,” nature personified is almost always female. One could assert, however, that these personifications of nature are poetic devices merely; modern Euro-American peoples do not believe that nature *really* is female, as South Pacific islanders might be said to believe that volcanoes are female or as Mediterranean peoples once believed that the change of the seasons was due to the fertility cycle of a goddess. We might be tempted to claim that we have outgrown such beliefs.

But such a claim would be hasty, to say the least. The association of nature with femaleness is very much a part of modern Euro-American culture in at least three important ways: (1) it is embedded in our language; (2) it is deeply rooted in the western metaphysical traditions that structure our modern world view; and (3) it appears time after time in the literature that we revere as the best ever produced in the western world, the literature that moves us still today. If our case is plausible, then surely it makes sense to say that even now, at least on an unconscious level, nature is Mother Nature; the physical world is female.

English is one of the few modern European languages that do not genderize all common nouns. In other European languages words for nature take feminine articles, and their adjectives receive feminine inflections. But even English carries some half-buried feminine associations in its naming of the physical world. Of special interest here is a word quite common in popular scientific discourse, the word *matter*. Matter is directly linked to the word *materia*, which is akin to matrix, another word for womb. Even more obvious is the link between matter and *mater*, *moder*, and, finally, mother.<sup>4</sup>

<sup>4</sup>The word *matter* comes to English from the Romance languages. It is akin to the Latin *materia*, a word associated with yet older terms for trees or wood, in other words, building material, the living stuff of which things are made. *Materia* is related to the word matrix, or matrice, which in early Latin meant pregnant animal, and in later Latin

Perhaps even more interesting than the language itself is the use to which it was put in the development of western metaphysics, the metaphysics that still animates much contemporary popular religious, if not also scientific, thought. Greek philosophy in its Greek form was lost to western Europe until the 12th century. Christianity developed out of the disparate traditions of Judaism and the Hellenistic philosophies of the Neoplatonists and Stoics, whose texts were handed down in Latin or, in many cases, in Latin translations from the Greek. The Stoics believed that the natural world was a single, conscious, living being producing all things, literally out of its body. Needless to say, this world-being was female (Merchant, 1980, p. 3).

Christians were less amenable to stoic cosmology, however, than to the cosmology of Plato as interpreted by Neoplatonists. It was the Neoplatonic Plato until the 12th century and then Aristotle who were to have the biggest impact upon Christian metaphysical thought.

Plato's *Timaeus* contains his story of world creation. There, through the mouth of Timaeus, Plato explains that there are two separate realms, the realm of the perfect, unchanging, intangible, rational Forms and the realm of the *chora* ( $\chi\acute{o}\rho\alpha$ ), undifferentiated, unqualified, chaotic, irrational extension, or space. The *chora* is a kind of existing non-being (Eslick, 1963). The demiurg, “looking” at the perfect Forms, shapes in the realm of Extension copies of what he sees. However, because the medium of the demiurg is the *chora*—sometimes translated in Plato as “receptacle” and elsewhere simply as “country” or “expanse of land”—these creations can never be perfect. The *chora* itself accounts for the difference between copy and Form; for that which has extension, that which is tangible, is divisible, or, as the medievals put it, is corruptible. This *chora*, then, makes the world imperfect, unstable, and deathly. Plato seeks release from the shadowy impermanence of this cave-like

came to mean uterus or womb. We still see the word matrix used in English to mean womb as late as the 19th century (*Oxford English Dictionary*, s.v. “matrix”). It has since taken on the broader meaning of a grid, web, or tissue upon which something depends or out of which it emerges.

Both matrice and *materia* can be linked with *mater*, which in Middle English becomes *moder* and in modern English, mother. In sum, that out of which all things come and upon which they at least sometimes depend is living matter, matrix, that is, mother.

We should not underestimate the impact of the Latin language upon the formation of the modern mind. Until fairly recently Latin was a child's discipline and was therefore well known to every man of science or letters. Even after Vatican II there is still a sense in which Latin is the language in which one expresses reality or truth. Goldenrod, for instance, is “really” *Solidago virgaurea*.

world (which even non-Freudian scholars identify as "the mother") through pursuit of the rational Forms.

Aristotle, whose works were reintroduced into western Europe in the 12th century and assimilated into Church doctrine through the efforts of Thomas Aquinas, commented on the *Timaeus* more than on any other Platonic dialogue. Aristotle preferred the word *hulé* (ὕλη) rather than the word *chora*, as the name for the opposite of Form. Aristotle's *hulé*, like Plato's *chora*, is the bare, existing "stuff" from which formed or ordered things emerge (Weisheipl, 1963, p. 150). (*Hulé*, like the Latin *materia*, is a feminine noun also meaning "wood" or "building material," facts used by Freud [1916-1917, pp. 159-160] to explain why wood sometimes symbolizes "woman.")

Among Aristotle's voluminous output was *De Generatione Animalium*, where he contends that female animals contribute only the *hulé* out of which their offspring emerge; the male contributes the form. Semen is the shaper of the *hulé*. If semen is allowed to do its work properly, to overcome the recalcitrance of the *hulé*, the child will be a healthy, handsome male. If, however, the *hulé* resists the semen successfully, the child will be deformed ("de-formed"), possibly female (femaleness being a deformity for Aristotle as it is later for Aquinas).<sup>5</sup>

Galen disagreed with Aristotle's position, arguing that females actually do contribute part of the offspring's form. But the issue continued to be debated in theological circles through the Middle Ages and was not finally laid to rest until the existence of the ovum was verified with the use of a microscope.

Aquinas—whose work surely still exerts a profound influence, both directly (on the minds of parochial-school educated Catholics) and indirectly (on all of us) through the pervasiveness of Catholicism in western Christianity and, therefore, western culture—understood *hulé* to be equivalent to the Latin *materia* and so translated it, as did other medieval commentators. For Thomas *materia*, matter, is passive and unknowable, without actuality or rationality, just as Plato's *chora* was. Many commentators take *chora* and *hulé* to be virtually identical

<sup>5</sup>In "On the First Man" Aquinas (1978) wrote, "As regards the individual nature, woman is defective and misbegotten, for the active power in the male seed tends to the production of a perfect likeness according to the masculine sex; while the production of woman comes from defect in the active power, or from some material indisposition, or even from some external influence, such as that of a south wind, which is moist . . ." (pp. 80-81). Woman is the result of a failure of the (male) forming power to overcome the recalcitrance of the (female) material. For an interesting treatment of Aristotle's position, see Lange, 1983, pp. 1-17.

(Archer-Hind, 1888, p. 183). Thus we can trace the history of the concept from *chora*, to *hulé*, to *materia*, to matter. But whatever the name, the characterization remains; matter is irrational (unknowable, undifferentiated, chaotic), stubborn (refuses to hold form, tends to return to an undifferentiated state), and the source of corruption (because anything that occupies space logically can be divided; tangibility always entails the possibility of dissolution or death). When medieval Christians speak of matter as irrational, stubborn, and the source of corruption, it is very hard even today not to hear the name of Eve, and certainly for the medievals they were closely associated. Both are set in opposition to rationality, order, morality, and the eternal will of God.

By the Middle Ages, then, nature, the physical world, matter in general, is decidedly female. She is Mother Nature, and she, like any real mother, has her good and bad moods. In the late Middle Ages we see Mother Nature with two distinct faces. She is, on one hand, the gentle, comforting, nurturing mother who takes care of her children's physical needs—the natural world of Geoffrey Chaucer and later of Edmund Spenser and John Milton (Merchant, 1980, chapter 1) On the other hand, she is the frightening, powerful, death-wielding female who stands opposed to the order and immortality promised us by Father God. This ambiguity is neatly captured in medieval iconography.

By the 13th century, cathedral art depicted the mundane world as *Frau Welt*, or Dame Nature. "Dame nature, from the front, has a beckoning smile and courtly attire, but from the back she is revealed to be covered with the foul, reptilian creatures of hell and the grave" (Ruether, 1983, p. 81). To the average Christian, the message was clear. The world, as woman, is to be renounced, despite her charms, in favor of the love of eternity and the goodness of God. Furthermore, the love of real women, like the love of earthly riches, must be shunned, for it corrupts a man's eternal soul and leaves him vulnerable to abandonment, pain, and death.

In 1486, Heinrich Kramer and James Sprenger, two Dominicans under orders from Innocent VIII, published *Malleus Mallificarum*, the Inquisition's manual on witchcraft. For the next 300 years all across Europe witches were burned at the stake, were drowned in specially constructed witch tanks, or were beaten and broken on wheels, racks, and other instruments of torture. Many estimates put the death toll at nine million. In some towns no women were left alive (Dworkin, 1974, pp. 118-150).

All women, all those who possess a matrix, are carnal, lustful, fleshy, enmeshed in the physical world, the world that threatens man in his project

of self-perfection, in his dream of eternal life. Hence, in some sense it seems logical to say that womb (matrice) simply means, simply *is*, the physical world. (We cannot resist mentioning again that many English scholars have translated Plato's *chora* as "receptacle," the receptacle of the seminal activity of the god.) Women are to be avoided because by showing the Christian man the joys of the flesh and of this world, they divert him from the joys of heaven, the Other World. Women are terribly dangerous, doubly signifying death. They must be controlled, even to the point of torture and execution.

But not all witchhunts were, in common parlance, "witchhunts." There were real witches, women who practiced the religion of Wicca and who were at least the ostensible objects of the Inquisition's search. Wicca is an ancient goddess religion. Witches believe that the goddess whom they worship permeates the material world, in fact, *is* the material world. In Wicca there is no male god set apart from the matter of his creation. No divine orderer dominates the goddess. She is the mother of all, both order and disorder. She is both rationality and chaos. This goddess-mother-nature is all powerful. She can be loved, learned from, obeyed, and depended on, but she cannot be controlled (Starhawk, 1979).

Simultaneous with the witchhunts came the rise of modern science. Francis Bacon used the language of the witch trials to describe his new method for the investigation of natural phenomena. Bacon frequently made statements to the effect that the "inquisition of nature is [not] in any part interdicted or forbidden" but that nature must be "bound into service," made a "slave," put in "constraint," and made to reveal herself in the grasp of man's mechanical instruments of interrogation (Merchant, 1980, p. 169). (In this respect Bacon sounds rather more like an "applied" scientist than a "pure" one.) Bacon, writing in the 17th century, still personified nature using the categories of Plato's *Timaeus*. Matter, a "common harlot," "is not devoid of an appetite and inclination to dissolve the world and fall back into the old Chaos." The harlot, therefore, must be "restrained and kept in order" (Merchant, 1980, p. 171). Nature must be controlled if man is to live in peace and security on this earth.

The witchhunts did not end until the 18th century. At the beginning of the 19th century, Europe entered the age of Romanticism, when nature became a loving mother (or bride) who comforted urban man after a hard day's toil. Nature was appreciated among the poets in her passive beauty, while she simultaneously was subjected to the interrogations of Baconian scientists. Nature was being tamed. It was into this milieu that Charles Darwin was born.

Through the 19th century nature was popularly personified as a woman, but she was no longer threatening. In leisure she was to be enjoyed; in work she was to be husbanded, bent to the will of technological man. No longer too mysterious, no longer too powerful, nature was subservient. Wordsworth, praising technology in "Steamboats, Viaducts, and Railways," wrote that "Nature doth embrace/Her lawful offspring in Man's art." Nature's loveliness may be somewhat marred by man's use and manipulation of her elements; still, the products of man's interaction with nature are her legitimate children. Man is her lawful husband; she, his accommodating bride. But there is ambivalence in Tennyson's "In Memoriam A.H.H." (1849):

Are God and Nature then at strife,  
That Nature sends such evil dreams?  
So careful of the type she seems,  
So careless of the single life,  
That I, considering everywhere  
Her secret meaning in her deeds,  
And finding that of fifty seeds  
She often brings but one to bear . . .

Tennyson goes on to express his hope that God is still somehow in control and we are not at the mercy of this seemingly irrational and pain-inflicting Female. This poem was written ten years before Darwin published *Origin of Species*.

Nature was a woman for well over 2,000 years. Though, as we suggest later, the strength of this personification may be waning, it would be more than a little surprising if all trace of it had vanished; and clearly that is not the case. We often attribute feminine qualities to nature in our everyday speech, and the margarine commercial to which this section earlier alluded is evidence that a female nature is a widely recognizable icon in popular culture. It is, then, absurd to think that nature's old gender identity exercises no power over us, even if we are not often conscious of it; the association was once too powerful to have dissipated so readily. Thus, we contend, the traces of nature's femininity still borne by our speech and perpetuated by our poets, conservationists, and Madison Avenue executives are not meaningless remnants of a long-dead mythopoeic world view. They are, rather, the overt manifestations of a vital, socially transmitted personification of the natural world as female, as a mother, a matrix, from which we all emerge and upon whose care and hoped-for constancy we all depend for physical survival.

## DISSONANCE WITH THE "PATRIARCHAL UNCONSCIOUS"

With the poet's sensitivity, Tennyson felt the coming storm and sensed in himself a conflict we believe characterizes the creationist today: God is supposed to be love, but nature, his creation, appears cruel. Nature drives life forms to reproduce far beyond the number that can survive and kills off the surplus. Yet in a few years evolutionism would make this cruelty the very core of natural history, and God simply irrelevant (as must any scientific idea *qua* science) (cf. Colp, 1977, p. 30).

Having just argued that nature symbolizes femaleness, especially mother, we now see that evolutionism makes of her a real *mother*, as our sexist slang might put it. Domineering and life-destroying, she is not at all what femininity in general, or mothering in particular, is supposed to be. Evolutionism, in the unconscious mind of the creationist, replaces father with mother, and with a kind of witch-mother at that. It could be objected that creationists as a whole lack sufficient knowledge of evolutionary theory to draw this conclusion; yet does the conclusion really require one to have heard much more than the cliché that evolution posits "survival of the fittest"?

If evolutionism indeed unconsciously appears to the creationist to put a cruel matriarchy where a benevolent patriarchy was, two facts about creationism fall immediately into place. First, its chief locus is among fundamentalist Christians with rigidly traditional notions of proper sex roles. It is precisely such people our theory would "predict" should be especially threatened by evolutionism's symbolic sex-role inversion. Second, creationism seems to correlate strongly with aversion to abortion. This fits well, because in deciding on abortion, a woman arrogates for herself the "male" prerogative of willful, active power over life and death. Rather than take control, women ought to create life passively out of their natural substance (Rosaldo and Atkinson, 1975). A mother's control over the fate of her fetus is a sort of microcosm of Mother Nature's control over the fate of species; thus abortion is as repugnant as evolutionism, and for the very same reason. (It cannot be claimed that aversion to abortion stems from a Christian protectiveness toward human life in general, because fundamentalist Christians seldom speak out against warfare or capital punishment.)

These links joining creationism to rigid sex-role stereotyping and to abhorrence of abortion provide two instances of "independent confirmation" of the centrality, in creationism, of fear of female power. Underlying the relatively superficial association of creationism with political conservatism, then, is a psychological consistency not only deeper, but at the same time more specific, than has been recognized

before. We wish to underscore these successes at "predicting" deep psychological consistencies—another instance of which will be provided near this chapter's end—because they are among the hallmarks of evidential veracity whenever psychoanalysis is applied, whether to clinical or cultural phenomena.

Whence comes this deep aversion to anything hinting of female empowerment? The easy answer would be that these patriarchal attitudes are taught, along with creationism, by the churches to which the people happen to belong. This, however, would imply a truly anti-Freudian perspective on the psychological import of religion. Religion in the main does not create unconscious conflicts; it speaks to them. When it fails to provide "therapy," it is either modified or discarded (Brenner, 1974, p. 212). True in any society, this is pronounced in societies having many religions, because people can gravitate to the faith that best meets their psychic needs. We therefore cannot ascribe creationism (or antiabortionism or strict sex roles) simply to conscious teaching; we must look more deeply, into the psychic differentiation of the sexes.

From a psychoanalytic perspective, the classic text surely is "Some Psychological Consequences of the Anatomical Distinction between the Sexes" (Freud, 1925). The conclusions in this late paper were presented very tentatively because Freud felt he had an insufficient number of cases on which to base them. They were put forth as hypotheses for further study.

Freud proposed that little boys routinely react to their first glimpse of the female genital region with either "horror of the mutilated creature or triumphant contempt for her" (p. 252). Little girls typically react to the sight of the male genital region with envy, which, except to the extent that it leads to a masculinity complex, leads to a sense of inferiority and a concomitant concurrence with the contempt felt by men for a lesser sex (p. 253). In terms of oedipal development, this anatomical distinction "corresponds to the difference between a castration that has been carried out and one that has merely been threatened" (p. 257). We cannot go into greater detail here; but Freud did go on to suggest, hesitantly, that this difference may make the average female superego less "inexorable," less "impersonal," and less "independent of its emotional origins" than in the average male (p. 257). This, Freud continued, would explain traits

critics of every epoch have brought up against women—that they show less sense of justice than men, that they are less ready to submit to the great exigencies of life, that they are more often influenced in their judgments by feelings of affection or hostility [p. 258].



Though Freud did not say that these traits make patriarchy natural or inevitable, it seems that men generally would be better suited, under this characterization of the sexes, to carry the burden of political decision-making. We shall return to this later.

The infantile reactions Freud described surely can be powerful. One of us scrupulously taught a little daughter the correct name for her genital right along with her other body parts, assuring her from the very beginning that no boy had a vagina, or ever would, and that she had never had a penis and never would; yet by the time she was three she already had proposed that she had had a penis "when she was a baby," and, being told (again) that she had not, announced two weeks later that she would get one "when she gets bigger." Clearly, it is not simply a matter of teaching girls sufficiently early in life that they indeed have something there.

Yet Freud's scheme seems overly mechanical and possibly overgeneralized, as the following case demonstrates. In a personal communication, a woman described her first glimpse of a penis at the age of four. This experience occurred just after she had learned about how tadpoles change to frogs, even watching them go through the stages in a swamp near her home.

Around that time the boy next door showed me his penis. He was only four himself, so it didn't look like much of anything but an extra tag of rubbery skin. He, or someone, assured me that all boys had one. I was willing to believe that all boys had one, but I found it hard to believe that a grown-up like my father (who I knew *used* to be a boy) would have such a thing. I concluded that boys, like tadpoles, had extra appendages that would gradually disappear as they matured. I don't think I believed this for very long, but I can't recall what changed my mind.

This surely differs from Freud's terse, colorful generalization about the little girl's first impression: "She makes her judgement [sic] and her decision in a flash. She has seen it and knows that she is without it and wants to have it" (Freud, 1925, p. 252).<sup>6</sup>

If Freud's generalization on this score is questionable, more question-

<sup>6</sup>We of course recognize the possibility that earlier, forgotten experiences underlie this one. Still, the circumstance that her household was "almost thoroughly female" (no brothers, her father often working seven days a week, sometimes 12-hour shifts), and the seeming spontaneity of her reaction, make us think this unlikely.

able on its face is the generalization about men having sterner superegos. We can think readily of apparently guilt-ridden women and seemingly guilt-free men. The hypothesis of significant average differences will elude testing so long as psychoanalytic variables resist effective quantification. Even assuming such a difference, its cause would remain in doubt.

Whatever the ultimate verdict on his 1925 paper, it by now seems highly probable that Freud's stress therein on oedipal dynamics needs to be modified by a consideration of preoedipal processes of separation-individuation. Indeed, Forrest's (1986) persuasive interpretation of anti-abortionism as a fantasy attempt to "push the separation-individuation from the mother as far as possible back into the mother's reign over the child," invoking "the protective authority of the Heavenly Father as the true Creator" (p. 152) provided the germ of the present paper.

Ideally, mother and child "let go of the early bond without rejecting" one another (Flax, 1983, pp. 252). Unfortunately things go awry: the little boy "consolidates his differentiation" by repressing the "female" parts of himself (pp. 252-253). About this process—termed "disidentification" by Greenson (1968) and well described by Stoller (1968; Stoller and Herdt, 1982)—Flax is far from sanguine:

These defenses become part of ordinary male behavior toward adult women and to anything which seems similar to them or under their (potential) control—the body, feelings, *nature*. The ability to control (and be in control) becomes both a need and a symbol of masculinity. Relations are turned into contest [sic] for power. Aggression is mobilized to distance oneself from the object and then to overpower it. [p. 253, italics added].

Meanwhile, things unfold no better for the little girl, who overidentifies with the nurturant figure and thus, in adulthood, "seeks relationships, even at the expense of her own autonomy. The two genders thus come to complement each other in a rather grotesque symmetry" (p. 253).

The problem in large part, according to Flax, is that the child's early care has been entrusted so exclusively to the mother, or at least to a female. Thus, the "grotesque symmetry" of adult gender relations owes not to the anatomy of the sexes, but to the anatomy of patriarchal societies—those in which "men as a group oppress women as a group" or, less polemically, "men have more access to and control over the most highly valued and esteemed resources and social activities" (p. 272). Of course, "patriarchal society" is essentially coterminous with "human

society" thus far, a fact of which Flax (p. 272) is well aware; therefore, doing away with the "grotesque symmetry" is a project for the future.

Perhaps the sexual stratification of human society did originate in anatomy. As the biological bearers and nurses of children, hominid females from the beginning probably found their mobility limited relative to that of males. This in turn probably restricted their activities to more routine tasks near the band's camp. Scharf (1977), for example, concludes that

the biology and psychology of reproduction and nurturance handicaps most women, in relation to all men, in the performance of tasks involving wide-ranging movement or single-minded specialization, and also those which, because of unpredictable elements, cannot be routinized. Thus arises not just a sexual division of labor but an invidious sexual division of labor [p. 452].

Any sexual division of labor whatsoever would be functionally conducive to differential socialization (and thus to psychosexual differentiation) of the genders; but this particular sexual division of labor, with its exclusion of men from early child care, seems almost contrived to complicate the very differentiation it helps necessitate. Hence, the problems pointed up by Flax: the tiny girl overidentifies with, while the tiny boy tries to dissociate from, the nurturant behavior so exclusively associated, in their experience, with femaleness.

With the technology of bottle-feeding and with improved contraceptives, however, the anatomical basis of sexual stratification is withering; recent technological advances suggest that this basis may someday vanish altogether. Meanwhile, there is no firm evidence that nature has equipped females psychologically to be better caretakers of the very young than are males, and should such evidence be forthcoming, it would not preclude the desirability of greatly increased male involvement.

Because male involvement remains modest despite technological evolution making greater male involvement possible, the *continuing* femaleness of primary caretaking should be attributed more to social structure than to biology. And we agree that the femaleness of caretaking in the early years of life probably contributes greatly to, if it does not fully cause, (1) the urgency of the growing boy's separation from mother and the consequent vehemence of his scorn toward things feminine; and (2) the extent of the growing girl's ambivalence toward mother and her concurrence with the boy's assessment of femaleness.

Whatever the relative contributions of biology and social structure in causing the patriarchy of human society generally, contempt for femaleness is widespread in our own society. Everyday life makes clear that this is so even among ostensibly nonsexist males. A few random examples of emanations from the patriarchal unconscious: His tongue loosened by wine at a party, a most "progressive" man complains scornfully that the goblet he holds is undersized—"stubby, suited for a woman." Another equally enlightened college professor, learning that a friend had several brothers but no sisters, jokes, "Wow, your father had potent semen!" (The implication that women are products of inferior semen is only a small remove from Aristotle's notion that recalcitrant *hulé* is to blame.) An interesting slip of the tongue: a man fairly conversant with Freudianism found himself frustrated by a male colleague's obstinacy. Describing the situation to a friend, he referred to the male colleague as "she." He immediately—and erroneously—interpreted the slip as representing castrative aggression. Although this would reveal scorn in the form of the infantile conception of female as castrated male, the correct interpretation struck closer home. A female friend offered a feminist interpretation: perhaps the resistance from his colleague was a form of passive power felt suitable to a female rather than a male, whose power "should" take an active form. This stimulated a line of associations leading to a comparison of the colleague's obstinacy with obstinacy this the subject just then was encountering from his girlfriend. The slip clearly meant "This colleague is behaving just like she is." The hasty, ultraorthodox Freudian interpretation possibly acted as a defense against the correct interpretation.

Scorn toward femaleness occasionally is obvious among men in positions of great power. Informing President Truman of the first successful test of a hydrogen bomb, physicist Edward Teller transmitted the code phrase, "It's a boy!" Presumably a failure would have been a girl. Lyndon Johnson associated doubt, uncertainty, thinking, questioning, and writing with femininity. Real men were doers. Perhaps an infantile reaction to female anatomy was involved: Hearing that a certain member of his administration was becoming a "dove" on Vietnam, Johnson is quoted as saying, "Hell, he has to squat to piss" (Halberstam, 1969, p. 532).

Yet this apparent persistence of the patriarchal unconscious poses us a glaring problem: How has the theory of evolution by natural selection managed to gain so much acceptance against such formidable psychological resistance?

In the time since Darwin, bearing, nursing, and caring for the very

young have remained largely female enterprises; but female activity is less and less *restricted* to these enterprises. Women do many other things, though admittedly still not with the freedom or rewards enjoyed by men for the same activities. Under these changing social circumstances, however, would we not expect the cultural personification of nature as female to weaken? These changes would lead, thus, to a reduced ability of evolutionism to stir the fantasy of female domination; meanwhile, they would reduce the invidiousness of the sexual division of labor, which, in turn, would place boys under less sociofunctional pressure to dis-identify from all things "female" because the very line between male and female activities is itself blurring. We suspect, too, that men are taking a larger role in caring for very young children. Their parental caregiving, while still modest, may already be sufficient at least to have begun dulling the "edge" previously put on the patriarchal unconscious by preoedipal separation-individuation dynamics. Dare we hope, though, that such changes may be only particular mechanisms of a more general psychocultural evolution toward greater maturity and better reality-testing?

#### CREATIONISM, SCIENCE, AND REALITY-TESTING

We have argued that creationism persists because of its consonance with the patriarchal unconscious. Superficially this alone might seem to render creationism unscientific, since scientific ideas are supposed to be those held in virtue of their fit with objective evidence rather than with psychological need. Yet to dismiss creationism simply because it fulfills psychological needs would involve us in a contradiction, for have we not already conceded that evolutionary theory may be held partly because of psychological needs? Just as we must avoid considering an idea's truth-value as dependent on its origin (the "genetic fallacy"), so must we avoid basing an idea's scientific status on the (impossible) condition that subjective motivations play no part in people's reasons for subscribing to it. It turns out to be surprisingly easy to go astray in attempting to prove evolutionism's scientific superiority, especially because science itself has been defined so variously.

There are at least three common ways of formulating a definition of science. One view, often associated with Francis Bacon, is that science is not so much a practice as it is simply a body of facts. Used in the 1920s by creationists (Numbers, 1982, p. 539), this definition makes discounting evolution easy indeed: after all, evolution is not a fact; it is a theoretical model put forth to explain various phenomena.

Discounting evolution may be equally easy for those who take a Popperian view of science. Sir Karl Popper asserted that science is essentially the practice of establishing a set of theoretical conjectures and refutations; therefore, for a theory to qualify as scientific (rather than as, say, metaphysical) it has to be subject to the possibility of refutation. In other words, it must be falsifiable. Creationists can charge that evolutionism does not meet this criterion (Numbers, 1982, p. 543).

A third, more complex, view contends that science does not consist of only one essential activity; rather, it is a set of interrelated activities. To be a scientist, a person must engage in some of these activities. These might include paradigm construction, field work, experimentation, measurement, and publication of findings. One then could describe science from a sociological perspective as a certain pattern of behavior such that if a person does not engage in at least some of these activities, then what is being done is not science. Scientists produce theories or hypotheses; they collect evidence in the field or in the lab; they share their ideas with colleagues by attending conferences; they publish papers. Clearly evolutionists qualify as scientists under this description; creationists, many assert, do not. Scott and Cole (1985), for example, demonstrate that creationism virtually cannot be found in the mainstream scientific literature and that its absence therefrom cannot easily be accounted for by creationists' cries of "censorship." Yet this is not quite decisive, because scientific practice involves much more than publication. Publication is merely one indicator of scientific activity; it alone is not scientific activity itself. Despite not yet having published a paper, surely a graduate lab assistant is engaging in scientific activity. And creationists do apparently engage, once in a while, in scientific-like activities involving natural history.

As it turns out, however, these scientific-like activities give precious little support for creationism as a theory. Indeed, it is well documented that most creationist research is not even intended to support the theory of special creation; it is intended rather to discredit the theory of evolution. Creationists allege that much of the evidence for evolutionary theory comes from faulty dating procedures and misinterpreted geological data (Scott and Cole, 1985, p. 23). Now, certainly it is true that not all claims of evolutionist scientists have been borne out. Some methods of dating fossils are unreliable. Many questions remain to be answered. No good scientist will accept uncritically just anything written by proponents of evolutionary theory. Without taking the point as far as Popper initially did, we surely agree that rigorous criticism is an essential part of scientific practice. And insofar as creationists point out weak-

nesses in scientific work, they are participating in that practice. What they say may be erroneous or unhelpful, but some of it probably is science.

However, criticism of someone else's theory does not equal support for one's own. For, even if evolutionary theory were to be refuted soundly tomorrow, we would have no positive evidence for the theory of special creation. Creationists regularly commit the fallacy of the false dilemma. They appear to assume that there are only two possible accounts of life on earth—natural evolution or supernatural creation. In fact, the dichotomies nature/supernature and evolution/creation immediately yield two other possibilities: (1) supernatural evolution, for example, the widely held notion that evolution occurred, but under God's direction; and (2) natural creation, for example, the possibility (wildly inconsistent with the evidence) that all existing life forms were created suddenly by some natural, rather than supernatural, cause. Therefore, creationists' arguments against evolution certainly cannot constitute arguments in favor of supernatural creation. Yet this fact alone does not prove creationism nonsense; indeed, pointing out flaws in evolutionary theory must be considered supportive of *some* alternative to the theory as currently conceived, and creationism might appear to be one such alternative.

However, there is a compelling argument against creationism's scientific pretensions: creationism, by invoking supernatural causation, violates one of the most basic assumptions of scientific discourse. Morris (1974) writes, "Diametrically opposed to the evolution model, the creation model involves a process of special creation which is: (1) supernaturalistic; (2) externally directed; (3) purposive, and (4) completed" (p. 11). The real point of scientific creationism is that there is a creator and that that creator is not natural, but supernatural.

There is nothing illogical about the assertion that a supernatural force governs the universe, but there is also nothing scientific about it. Scientific explanation is always natural explanation; explanations from supernatural causes have no place in scientific discourse. Insofar as the postulate of this supernatural creator is needed to make the theory complete, creation science is not science.

This is not to say that science necessarily opposes all belief in the supernatural. It simply cannot pronounce upon such possibilities and cannot admit them into scientific discourse. Science does not disallow God; it merely disallows God as an explanatory principle. Scientists can believe in supernatural entities and doings, but when they discuss these ideas they are speaking as poets, metaphysicians, or religious believers,

not as scientists. (A striking example of such compartmentalization is Sir John Eccles, eminent neuroscientist and devout Roman Catholic.)

Given, then, that creation science is not scientific, we are left with the question of why creationists espouse the scientific label. Why are they unhappy confining their speculations to the philosophy and religion classes where they so clearly belong? In 1925, a proponent of creationism wrote, "It is not 'science' that orthodox Christians oppose. No! no! a thousand times, No! They are opposed only to the theory of evolution, which has not yet been proved, and therefore is not to be called by the sacred name of *science*" (Numbers, 1982, p. 539). In 1974 Morris wrote, "'Science' is *knowledge*, and the Bible is a book of true and factual knowledge throughout, on every subject with which it deals. The Bible is a book of science!" (p. 229).

These quotations indicate that some creationists believe—or at least believe that the average person believes—that science equals truth. Since most people, not being logicians, believe that whatever is not truth is falsehood, and since most people see little value in falsehood, it is imperative for creationists, given their naive and dangerous science-truth equation, to appear to be scientific. Hence their borrowings from scientific vocabulary, their public avoidance of religious language (Williams, 1983, p. 97), their think tanks and "research institutes," their refusal to relegate their beliefs to courses in religion. Creationism has become parasitic upon scientific discourse.

Is this parasitism conscious and intentional? That is, are the leading creationists adorning themselves in the trappings of science, knowing full well they have rejected its substance? Possibly, but by no means necessarily. Religionists are always mistaking internal causes for external ones. The "voice" telling one the morally right thing to do, for example, is not recognized to come from within (superego) but is thought to come from without (God). It thus would be quite consistent for creationists to believe sincerely that they hold their position for external reasons (objective evidence, hence, "science") rather than internal ones (patriarchal unconscious).

Though there is good reason to deny the existence of a creation science, it is undeniable that a few of the leading creationists really are scientists. Their expertise and their work, however, apparently have little or nothing to do with ancient forms of life on earth. Let us close by considering this handful of people in terms of the distinction between pure and applied science. If nature is a female, it is the pure scientist's task to understand her, to tease out her secrets; it is left to the applied scientist to use these secrets to dominate her. Therefore, the theory we

have presented "predicts" that scientists who are creationists, equipped as they must be with a strongly patriarchal unconscious, would be suited psychologically not for discovering about nature but for dominating her.

Scott and Cole (1985) report that between January, 1978, and October, 1981, only six of the 28 most prominent "creation scientists" published results of their work in refereed science journals; all of these articles concerned research in such areas as "the chemistry and physics of food processing, simulation studies of loads, vibrations and stresses in aircraft wing structures, the effect of pollutants on aquatic microorganisms, etc." (p. 24). The overwhelmingly applied nature of this work we consider strikingly consistent with the theory we have put forth, and thus a third successful "prediction" (to add to the earlier "predictions" of sex-role rigidity and abhorrence of abortion) of a deep psychological consistency.

The evidential support for evolution's occurrence is not clearly inferior to that for, say, the spheroidal shape of our planet. It would be pleasant to be able to ascribe the persistence of creationism simply to culture lag, to incomplete diffusion of this evidence—in brief, to ignorance. We see, however, that creationism survives even among highly educated people (though it is less common among them); and this persistence seems to us best accounted for by the fear, created and sustained by the patriarchal unconscious, of female empowerment.

But we may end on a more hopeful note. "The voice of the intellect is a soft one," Freud (1927) wrote, "but it does not rest till it has gained a hearing" (p. 53). To recognize the persistence of creationism is not to deny the progress of evolutionism; indeed, is it not a tribute to restive reason's gains in our own time that creationism itself must masquerade as science—the cultural institutionalization of those reality-testing abilities bequeathed to us by evolution through natural selection?

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