Current Science and Ellen White: 12 Controversial Statements¹

Jerry Moon, 2007

Certain statements by Ellen White seem to conflict with current understandings in the natural sciences. It is well known that some of her statements contradicted scientific thinking at the time she wrote, but have since received broad scientific support, such as her denunciation of tobacco as a poison (4SG 128 [1864]), and her recommendation of a balanced, varied vegetarian diet as preferable to a diet including flesh food.

The "problematic statements" may be grouped in three general categories: (1) statements that were considered sound advice at the time they were given, and that would still be sound advice if the same conditions still prevailed, such as her warnings about wigs, too-tight corsets, toxic cosmetics, and possible problems with cheese; (2) statements on which there is partial and increasing scientific support, including disease from "miasma," a connection between porkeating and leprosy, the influence of a wet-nurse on a nursing infant, and risks associated with extreme age differences between spouses; and (3) statements in harmony with commonly accepted thinking at the time they were given, but which remain partially or wholly unconfirmed by science in the 21st century, such as the causes of volcanoes, the height of the antediluvians, amalgamation of humans and animals, and the physical effects of masturbation.

This article addresses 12 topics, grouped under categories 1-3, above, and evaluated on the basis of six foundational premises. To be valid, these premises must be biblical. To be

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relevant to the argument, they must also be consistent with the broad principles of Ellen White's thinking. For these reasons it is necessary that each of these principles be grounded both in Scripture and in the writings of Ellen White.

The first major premise is that Scripture portrays an infallible God speaking through fallible prophets, whom God would correct when necessary to protect His truth (Gen 20:7; 2 Sam 7:3-13). The wide variety of style and expression among the biblical writers supports the view that God revealed concepts to the prophets, but that the prophets' human individuality played a part in the choice of specific words by which the divinely-revealed concepts were expressed. For a biblical exposition of this topic, see Peter van Bemmelen, "Revelation and Inspiration," in *Handbook of Seventh-day Adventist Theology*, ed. Raoul Dederen (Hagerstown, MD: Review and Herald, 2000), 22-57.

Ellen White's position is that inspiration is not dictational, except on rare occasions, but rather results from "a union of the divine and the human" in such a way that the message from God "is conveyed through the imperfect expression of human language" (GC v-vii). Thus the written word expresses the human individuality of the prophet, but is protected from errors that would hinder the divine purpose.

A second major premise is that human knowledge in all fields is incomplete, but increasing (1Cor 8:2; 13:9-12). In White's terms, "human knowledge of both material and spiritual things is partial and imperfect" (GC 522), and "knowledge is progressive" (GC 677-678). In revelation, Ellen White held that new truth amplifies old truth, but does not contradict it. "That which was truth in the beginning is truth now. Although new and important truths appropriate for succeeding generations have been opened to the understanding, the present

revealings do not contradict those of the past. Every new truth understood only makes more significant the old" (RH, March 2, 1886; cf. GC 297). Individual religious experience is also "progressive" (CT 281, Ev 355, FW 85), as education must also be (CSW 103, EV 105).

Because human understanding is always limited, in both science and revelation, improved understanding can correct previous misunderstandings. Both science and revelation, therefore, must be read in historical context. For example, since 1930 when Pluto was discovered, there were nine known planets in our solar system. That number changed with the discovery of Xena, a planet-like object slightly larger than Pluto. Rather than recognize 12 or more planets of diminishing size, the International Astronomical Union wrote a formal definition of "planet" that leaves only eight. Pluto and several similar-sized objects are now called dwarf planets (J. Adler, *Newsweek*, September 4, 2006, 44-50).

A corollary to the premise that knowledge is progressive, is that in all fields of specialization, specialists attach more precise, technical meanings to words that nonspecialists use in more general ways. Furthermore, both technical and common terminology change over time. The best guide to an author's intended meaning is how the same author uses the same term in other places, while recognizing that even within one author's work, terms may not always be used in identical ways.

A third premise is that the messages of the biblical prophets were not esoteric utterances disconnected from the issues of real life (1 Cor 14:6-9), but were given for the guidance of all people (1 Kings 8:43), in all situations of life (Deut 6:6-9; 2 Chron 20:20). They were given for "practical purposes" (1SM 20). Accordingly, Ellen White makes frequent appeals to "common sense" in matters of health, religion, and all of life (CT 258, Ed 220, Ev 540). "The Bible with its

precious gems of truth was not written for the scholar alone. On the contrary, it was designed for the common people; and *the interpretation given by the common people, when aided by the Holy Spirit, accords best with the truth as it is in Jesus*" (5T 331, emphasis supplied). This suggests that to assume a technical meaning where none was intended may lead to a misunderstanding of the prophetic message.

A fourth premise builds on the third: because the messages are given for practical purposes, both the instruction and the explanation are tailored to the historical context of the people to whom it is addressed. For example, in the regulations about clean and unclean flesh foods in Lev 11, the instruction is clear: "You may eat any animal that has a split hoof completely divided and that chews the cud. There are some that only chew the cud or only have a split hoof, but you must not eat them" (Lev 11:3-4 NIV). While the instruction is clear, the explanation that follows is adapted to the practical use of the common people: "The rabbit, though it chews [in a similar way to animals that chew] the cud, does not have a split hoof; it is unclean for you" (v. 6). Advancing scientific knowledge has long since shown that rabbits only appear to chew the cud; they are not ruminants like cattle and deer. But the terminology of Lev 11 was clear to the common people for whom it was given, and continues to enable anyone who reads it to make choices in harmony with the will of God. Another example is the OT assertion that God "suspends the earth over nothing" (Job 26:7 NIV). This assertion was factual in denying various ancient theories about what the earth rested on, but it was also incomplete, in that it made no attempt to suggest a theory of gravitation, much less of anti-gravitation.

In some cases, to reveal the "whole truth" about scientific matters would seem to have actually hindered the immediate purpose of prophecy, namely, to increase faith without coercing

it. For example, in Nov. 1846 in Topsham, Maine, Ellen White had a vision on the "opening heavens." Present at the meeting was Joseph Bates, a sea captain, navigator, and amateur astronomer who believed Ellen White to be a sincere Christian but thought her visions were merely a product of her long-term ill health. This vision changed his mind, because while in vision she described several planets. It must be remembered that neither during this vision nor at any subsequent time, did she herself identify by name which planets she had seen. But her description was sufficiently accurate for Bates to identify the planets, and to express his astonishment that the number of moons she ascribed to each planet represented exactly the latest discoveries of Lord John Rosse, a leading British astronomer of the day. Because the vision gave information that Bates recognized as scientifically accurate (according to the latest astronomy) as well as previously unknown to Ellen White, Bates became a believer in the supernatural origin of her visions (1Bio 113-114). Regarding the scientific accuracy of the vision, the number of moons known to orbit each of those planets continues to increase with every improvement in telescopes, but had the vision revealed details only discovered by science in the 21st century, Bates would not have recognized their accuracy. This is an example of scientific information that would not have achieved its evident purpose had it been too far in advance of scientific knowledge at the time it occurred.

A fifth premise is that in matters of health, especially, the *instruction* given is timeless, even though the *explanation* for it may be adapted to the historical situation of those to whom it was given. For instance, in Exod 15:26, the precise wording suggests that the diseases of the Egyptians were sent on them by God as punishment for their disobedience, and that healing from disease is a divine reward for obedience. Not always explicit in Scripture (which often uses the

language of penalty, e.g., Exod 15:26; Rom 1:27; 1Cor 6:18; Heb 2:2), but strongly affirmed by modern science, is the existence of a direct physical cause-and-effect relationship between disease and obedience or disobedience to laws of health. Likewise, In Leviticus, the *instruction* is clear: consumption of animal fat or blood, was absolutely prohibited, on penalty of death or banishment (Lev 3:17; 7:23-25). Eating the flesh of certain species, including swine, was also prohibited (Lev 11:4-8). The *explanations* given was simply that it is "unclean to you," and must be avoided, "lest you make yourselves abominable" or "defile yourselves." The principle given was "you shall be holy as I am holy" (Lev 11:43-44). The principle of holiness is still valid, though moderns seldom consider that holiness involves physical health. But if these prohibitions were to be repeated today, the *explanations* might well include an element very influential in modern thought and culture—the health consequences of consuming animal fat, blood, and "unclean" flesh.

Some scholars have suggested the possibility of differentiating between *instruction* and *explanation* in some of the health writings of Ellen White, based on her instruction about the use of salt. "I use some salt, and always have," she wrote, "because from the light given me by God, this article, in the place of being deleterious, is actually essential for the blood. The whys and wherefores of this I know not, but I give you the instruction as it is given me" (CD 344). Here she differentiates between the "instruction" and the "whys and wherefores" or explanation of the instruction (Roger Coon, "Ellen G. White, Science, and Faith: Part I: The 'Problem' Statements," GSEM534 Lecture Outline, Andrews University, May 9, 1995, p. 13-14).

More recently, Don McMahon, M.D., has done extensive research that appears to support this distinction. McMahon's research indicates that while advances in scientific knowledge have left some of her *explanations* yet unconfirmed, those same advances have produced a continually increasing accumulation of support for her basic *instruction* (Don S. McMahon, *Inspired or Acquired? The Adventist Lifestyle* [Warburton, Australia: Signs, 2002]; Leonard Brand and Don S. McMahon, *The Prophet and Her Critics* [Nampa, ID: Pacific Press, 2005]). This accords with the citations from Lev 11 above, where the *instruction* given is timeless, even though the *explanation*, the "why," might be expressed in somewhat different terms were it to be given in a different historical and scientific different context 150 years later.

A sixth premise is that God does not violate human freedom of choice by overwhelming people with absolutely coercive evidence. Instead, he promises that those who freely choose to do His will, will have sufficient information to act on (John 7:17). Thus he provides sufficient evidence on which to believe, but not so much as to make belief coercive or doubt impossible. Thus Ellen White advocated an intelligent faith, based not on unquestionable proof, but on the "weight of evidence" (DA 458).

Based on these six premises, therefore, we might expect to find (1) wise counsels of enduring value; (2) explanations that made sense and provided motivation for the readers to whom the counsels were originally given, though maybe not equally appealing to those living much later; (3) a sufficient weight of evidence to convince those open to fairly consider it, but not such overwhelming evidence as to coerce minds who choose not to believe.

A review of the 12 topics from the perspectives of original historical context, of current knowledge today, and of basic interpretive principles will prepare the way for drawing general conclusions. The first category of statements to be considered are those that were considered sound advice at the time they were given, and that would still be sound advice if the same

conditions still prevailed, such as warnings about wigs, toxic cosmetics, the effects of too-tight corsets, and possible problems with cheese.

Item 1. Lethal wigs. "Artificial braids . . . hair and pads covering the base of the brain, heat and excite the spinal nerves," producing "congestion" in the brain, loss of natural hair, and even insanity (HR Oct 1, 1871). The construction of wigs in 1871 was quite different than it is today. Whereas wigs today are of lightweight material, with an open-weave base that allows the scalp to breathe, wigs in Ellen White's day were of heavy materials—natural hair, cotton, sea grass, wool, Spanish moss, etc.—and rather than lightweight and elastic, they bound the head so tightly as to cut off circulation, confine body heat in the head, and trap perspiration, all of which produced persistent headaches, according to a physician whom Ellen White quoted in her article (HR July 1867).

When jute was the material used, a further hazard presented itself. The jute harbored small insects—jute bugs—that burrowed under the scalp of the wearer. Again Ellen White quotes from a contemporary physician who advised against wearing "switches, or jutes, or chignons, because they breed pestiferous vermin, whose life is fed by their drain on the small blood-vessels of the scalp" (HR Oct. 1, 1871). A "switch" of hair was a generic term for a hair piece that could be made of various materials. "Jutes" referred to "jute switches," hair pieces made of dark, fibrous, jute bark (see HR Jan 1871). "Chignons" could be made of human hair, of either local or imported origin (HR July 1867). The physician White quoted believed that the tight-fitting, heat-confining construction of the wig was a greater hazard to health than the possibility of insects (HR Oct. 1, 1871). Another hazard of hair pieces was human hair harvested from plague victims in China, then shipped through Hong Kong to New York where it was manufactured into

"switches," i.e., hair pieces. The boiling and chemical soaking processes were presumed sufficient to kill the plague-carrying microbes, except that dirty and clean hair were "thoroughly mixed" in the tenement workrooms and "passed through the same combs" ("The False Hair Industry," *The Watchman*, August 1910, 503-504). Whatever the level of precision in the physician's reports Ellen White quoted, her instruction to avoid such wigs was certainly good advice.

Item 2. Toxic cosmetics. "Many are ignorantly injuring their health and endangering their life by using cosmetics. They are robbing the cheeks of the glow of health, and then to supply the deficiency use cosmetics. When they become heated in the dance the poison is absorbed by the pores of the skin, and is thrown in to [sic] the blood. Many lives have been sacrificed by this means alone" (HR, Oct. 1, 1871, par. 20). In support of her warning against toxic cosmetics, White again quotes a physician who describes the contemporary women's fashion of painting the face with enamel or lacquer to give the skin the appearance of "fine porcelain." Whatever the supposed fashionable appearance, the physician declared, "the seeds of death or paralysis" are "hidden in every pot and jar of those mixtures," causing severe illness, sudden paralysis, or even death. The description suggests a white lead-based cosmetic and the symptoms that follow are those of lead poisoning. The physician continues, "Some who use them will suddenly have a severe illness; and receiving a private warning from the family physician, will cease the use of the cause of their disorder, and recovering, go through life with an extremely bad complexion." "Others will drop suddenly, with their features twisted on one side, and perhaps deprived of the use of their limbs. Others will die outright, no one guessing why" (HR Oct. 1, 1871).

Lead, a highly toxic element, was often an ingredient in cosmetics. White lead was used by cosmetologists in the ancient world to cover skin blemishes (see Jerome Nriago, *Lead and Lead Poisoning in Antiquity*). Lead poisoning will cause peripheral neuropathy (such as footdrop and wrist-drop) and sleep disturbances. The initial symptoms are irritability, headache, and nausea, according to Julian Chisholm, an expert on lead poisoning, cited in *U.S. News & World Report*, Aug. 10, 1987, 56). Thus the symptoms cited by Ellen White were entirely typical of lead poisoning.

In the 1870s there was no governmental agency to monitor the cosmetic industry. Ellen White herself was poisoned by applying a hair-restorer to her husband's bald head (HR Oct. 1871). Further evidence that her advice was practical is the fact that even with governmental oversight, cosmetics still contain dangerous poisons. A 1988 U. S. congressional investigation led by Congressman Ron Wyden found that "of the 3000 most commonly used chemicals" in the cosmetic industry, "more than a third are toxic." Of these, "314 are reported to cause biological mutation, 218 are reported to cause reproductive complications, 778 are capable of causing acute toxicity, 146 are reported to cause tumors and 376 ingredients are reported to cause skin and eye irritations" (Coon, pp. 23-25).

Item 3. "Wasp-waist" corsets. "Some women have naturally small waists. But rather than regard such forms as beautiful, they should be viewed as defective. These wasp waists *may* have been transmitted to them from their mothers, as the result of their indulgence in the sinful practice of tight-lacing, and in consequence of imperfect breathing" (HR Nov. 1, 1871, emphasis supplied). A few lines later she quotes from a contemporary periodical, *The Household*: "But my waist is naturally slender,' says one woman. She means that she has inherited small lungs.

Her ancestors, more or less of them, compressed their lungs in the same way that we do, and it has become in her case a congenital deformity."

Ellen White's unsparing denunciation of the nineteenth-century fashion of "tight-lacing" the female abdomen to produce a "wasp waist" is certainly supported by all current evidence, but the attribution of this to genetic transmission of acquired characteristics is completely inconsistent with scientific knowledge today. A careful reading, however, shows that the second statement about the possibility of "small lungs" being "inherited" as a "congenital deformity" is not from her pen, but is a quotation from a contemporary periodical. Ellen White's own expression stops short of full assertion. "These wasp waists *may* have been transmitted to them from their mothers," she comments (emphasis supplied). The word "may" indicates her doubt about the reliability of the contemporary source she had just quoted, and distances her from full endorsement of its explanation.

As another illustration of the evils of tight lacing of the female abdomen, Ellen White quoted a report from another contemporary publication, *Home and Health*. At a leading hospital in Paris, France, an internationally-known physician, Dr. Breschet, examined an 18-year-old female patient. The girl had on the right side of her throat something Dr. Breschet called a "tumor of variable size" that reached "from the collar-bone as high as the thyroid cartilage. When pressed downward, it wholly disappeared; but as soon as the pressure was removed, it was indolent, soft, and elastic. It was observed to be largest when the chest was tightly laced with corsets. . . . [T]he poor girl had been laced so tightly," said *Home and Health*, that her lungs were squeezed out of their natural position and were "forcing their way up along the neck" (HR Dec. 1, 1871). It seems obvious from the description that this condition was not what would today be

called a "tumor," but an air-filled sac produced by the extreme restriction of the lungs. Ellen White makes no comment whatsoever on this report. She simply quotes it as an example of the evils of tight lacing.

Item 4. Dangers in eating *cheese (see also separate entry). "Cheese should never be introduced into the stomach," wrote Ellen White in 1868, her first mention of the subject (2T 68). By 1905, her last mention of cheese, she still maintained that "it is wholly unfit for food" (MH 302). To many 21st-century readers, this might seem ludicrous. But a whole cluster of historical factors seriously moderate this conclusion.

First, Ellen White's use of the term "cheese" without any adjectival modifiers conformed to common usage in much of the USA in her day; she referred to "ripened" or strong cheese (CD 368), not to cottage cheese. According to those who ate at her own table, she adamantly refused to allow common yellow cheese at her table, but often served cottage cheese and sometimes cream cheese (Grace Jacques with Patricia B. Mutch, "Dinner at Elmshaven," ed. Sylvia Fagal, 2002, pp. 3, 13, 14, 17, 19, CAR).

Another possible interpretational factor largely overlooked is that some (not all) of her strongest statements were written to individuals with specific health problems that were aggravated by the cheese in their diet (2T 66-69). She herself admitted taking a single bite of yellow cheese on two occasions for social reasons, but afterward regretted it and never made it a regular article of diet (5MR 406, 15MR 246).

Another factor relevant to the cheese question in the 19th century was the unhygienic methods of milk production in her day. Dairies were notorious for unsanitary conditions, rampant disease in cows was transmitted to milk and cheese, and all these problems were made

worse by the lack of refrigeration (Otto L. Bettman, *The Good Old Days—They Were Terrible!* [NY: Random House, 1974, chapters 7, 8]). Pasteurization (heating milk to a certain temperature to reduce microbial contamination) did not become commercially available until 1882, and it was some years beyond that before cheese makers figured out how to integrate pasteurization into cheese manufacture without interfering with the fermentation that is integral to the cheesemaking process.

Perhaps the aspect of 19th-century cheese production most relevant to Ellen White's comments about cheese was the difficulty of arresting the aging process to keep cheese from spoiling once it was "ripe." As late as 1903 (two years before her last statement on cheese in MH 302), cheese spoiled so rapidly on the shelf that consumers often became sick from eating it. Not until 1916–a year after White's death–did James L. Kraft receive the first American patent on a process that gave cheese a virtually indefinite shelf life (C. Wohleber, "From Cheese to Cheese Food," *Invention and Technology*, Summer 2001, 8-9). These factors seem consistent with Ellen White's advice between 1868 and 1905 that cheese was "unfit for food."

While these factors have been largely alleviated in many parts of the world, some other factors may have continuing relevance, depending on the individual. Cheese is often high in both saturated fat and cholesterol, and may be high in sodium, an issue for individuals prone to high blood pressure. Further, the tyramine compounds that accumulate in cheese during aging and provide its distinctive flavoring, are actually neurotransmitters that can trigger allergic reactions, hypertension, and/or mind-altering effects on brain cells, all of which are relieved when cheese is removed from the diet (Neal Nedley, M.D., *Proof Positive* [Ardmore, OK: Nedley, 1999], 275-276, 295). In light of these factors, Ellen White's characterization of aged yellow cheese as

"wholly unfit for food" was probably true in most cases in the 19th century. If she were living today, with greatly improved conditions for sanitation and preservation, she might be a little less categorical in her condemnation. On the other hand, in view of widespread heart disease, obesity, hypertension, allergies, and mysterious diseases of the autoimmune system; with the continuing decline in bovine health; and the availability of better plant-based sources of protein, it appears that for those who have other choices, her counsel on cheese is still good advice.

A *second category* of her statements are those for which her explanations are at least partly supported by current science, though some are less technical or precise than they might be if she were writing today. These include the danger of disease from "miasma"; a connection between pork-eating and leprosy; the influence of a wet-nurse on a nursing infant; and too-great age differences between marriage partners. In some of these her counsel seems clearly to have been in advance of the findings of scientific research.

Item 5. The dangers of disease from miasma, "an unpleasant or unhealthy vapor" (Oxford Dictionary). "If we would have our homes the abiding place of health and happiness, we must place them above the *miasma and fog of the lowlands*. . . . Dispense with heavy curtains, open the windows and the blinds, allow no vines, however beautiful, to shade the windows, and permit no trees to stand so near the house as to shut out the sunshine. . . . Shade trees and shrubbery close and dense around a house make it unhealthful, for they prevent the free circulation of air and shut out the rays of the sun. In consequence, a dampness gathers in the house, especially in wet seasons" (AH 149; cf. MH 274-275; 4aSG 144).

The practical or "common sense" reading of this counsel simply indicates that high, dry ground, with ample circulation of pure air, affords a healthier environment for a home than in

poorly drained or swampy surroundings. The gases and vapors [miasma] from decaying material in swampy ground do not provide the pure, fresh air that encourages deep breathing, oxygenates the blood, and invigorates the entire body.

The question about this statement concerns the technical explanation of how disease is transmitted. Some have ridiculed this statement as attributing illness to mere bad odors. But 21stcentury knowledge of the role of mold and mildew in human diseases fully corroborates her cautions. This is especially clear if we reexamine the geographical context of her writing in light of present knowledge about mold and mildew, which flourish in persistently damp conditions. In northern climates, with short summers and severe winters, such as Michigan was before global warming, the chill of cold weather is intensified by persistent dampness. All of these factors are either explicit or implied in White's several statements on this topic (e.g., MH 274-275, 2SM 463-464). The element missing from her counsel that a 21st-century perspective would certainly include is the role of mosquitoes in transmitting disease. Her warning about stagnant water near the house certainly describes the conditions in which mosquitoes breed and proliferate (4aSG 144), though she does not mention mosquitoes (see 3SG 243; HR, Aug. 1, 1872). However her practical counsel remains perfectly valid in the light of today's scientific knowledge. Gases and vapors from decaying materials, the consequent lack of fresh air, the presence of mold and mildew, and possibly other airborne contaminants, are recognized today as aggravating to allergies and threats to health. The cold-weather chill that is exacerbated by persistent dampness may be less of an issue among the middle and upper classes in developed countries where homes are comfortably heated in cold weather, but in the nineteenth century, especially among the poorer classes, the dangers of a cold, damp climate were not to be taken lightly.

Item 6. Leprosy from eating pork. "The eating of pork has produced scrofula, leprosy, and cancerous humors" (4aSG 146 [1864]; 2SM 417). "God did not prohibit the Hebrews from eating swine's flesh merely to show His authority, but because . . . it would fill the system with scrofula [a form of tuberculosis that caused swelling of the lymph glands and inflammation of the joints], and especially in that warm climate produced leprosy, and disease of various kinds. Its influence upon the system in that climate was far more injurious than in a colder climate" (How to Live, ch. 1, p. 58 [1865]; 2SM 417). There are two issues here: the identity of the biblical leprosy, and whether pork-eating contributes to its spread. Regarding the relation of biblical leprosy to modern leprosy, authorities are divided, but there is evidence that while biblical leprosy included a broader range of ailments (e.g., fungus infections) than is included in the modern use of the term, yet modern Hansen's disease (leprosy) is the same as one of the diseases that came under the biblical heading of leprosy (see Coon, 10-11). Regarding the connection between pork and leprosy, there is no published clinical evidence that eating pork causes leprosy in humans, but there is a study in which mice fed a pork diet showed a significantly greater predisposition to leprosy than those on a non-pork diet ("Effect of Diet on Growth of M. Lepre in Mouse Footpads," by R. L. Foster, et al [Leprosy Research Foundation, Loma Linda, Calif.], in *Indian Journal of Leprosy* 61/3 [July 1989]; see also R. L. Foster, et al, "Nutrition in Leprosy: A Review," in *International Journal of Leprosy* 56/1 [1988]: 66-68).

There is some evidence that leprosy in humans can be contracted by eating the meat of an infected armadillo, an animal 20 times more susceptible than humans to Hansen's disease (Coon, 11, 32-34). While a link between pork-eating and leprosy has not yet been clinically demonstrated in humans, current evidence suggests it is possible.

Item 7. Choosing a wet-nurse. Ellen White strongly recommended breast-feeding of an infant by its own mother in preference to bottle-feeding (CD 227). A third option widely practiced in her day was having another woman nurse the baby. White warned that if this is necessary the wet-nurse must be physically and mentally healthy, because she "imparts her temper and her temperament to the nursing child" (HR Sept. 1871). This counsel is scientifically supported. White continues: "The child's life is linked to hers. If the hireling is a coarse type of woman, passionate, and unreasonable; if she is not careful in her morals, the nursling will be, in all probability, of the same, or a similar type. The same coarse quality of blood, coursing in the veins of the hireling nurse, is in that of the child." Some question the suggestion of the wet-nurse effecting the moral character of the nursing child. However, an objective analysis must recognize two areas of ambiguity: First, White does not attempt to articulate with precision the connection between the "morals" of the "hireling" and the "course blood" of which her breast-milk will be made. There is a correlation or association, but no clear description of cause-effect relationship. Second, the interrelationships between "temper and temperament" and moral character, as well as the mechanisms by which moral or immoral character may be passed from parent to child, are areas that scientific research is only beginning to explore. Meanwhile, despite 140 years of passing time, the counsel remains right on target.

Item 8. Great difference in age of marriage partners. Marriages between "old men" and "young wives" result in men living longer, but the wife's life may be shortened by the burden of caring for an aging husband (2SM 423-424). This first counsel seems to be little more than attaching moral responsibility to issues of common sense. In the case of the husband being markedly older than the wife, men live longer when happily married and well cared for. The

burden of caring for an elderly husband is often extremely wearing on the wife, and she can age more rapidly under this stress.

In a related counsel, she says that when young men marry older women, their children may be born with physical and mental weaknesses (2SM 423; reprinted from *How to Live*, No. 2, p. 29 [1865]). This was not as widely recognized in the mid-19th century, but is abundantly documented today. As a woman's age at childbearing increases, the likelihood of birth defects also increases. The most common genetic disability is Down Syndrome, a form of retardation whose characteristics correspond rather closely to Ellen White's description of the potential hazards of older women giving birth.

What is remarkable in this passage is that she links the detrimental effects on children with both combinations, older men who father children by younger women, and older women who bear children by younger men. Only in the 21st century has it been scientifically established that an aged father also increases the risk of birth defects (Thacker, "Biological Clock Ticks for Men, Too: Genetic Defects Linked to Sperm of Older Father," *Journal of the American Medical Association* 291 [2004]: 1683-1685; cf. *New England Journal of Medicine* 347, no. 18 (Oct. 31, 2002): 1449-1451). Another study published in *Human Reproduction* [July 2005], found that compared to a man below age 30, a man of 45 is almost three times more likely to father a child with Down's syndrome. A man over 50 is almost 5 times more likely to father a Down's child and is twice as likely to have a child with a cleft lip. The risk begins to rise when the father's age is between 35 and 40 (J. Hope, "Birth Defect Risk 'Rises with Age of the Father," London *Daily Mail*, July 21, 2005 [www.ndss.org/content.cfm?fuseaction=NwsEvt.Article&art], accessed Feb. 8, 2006). "Advanced paternal age has been linked to a variety of diseases" and "congenital"

malformations" (M. Lauritsen, C Pedersen, and P. Mortensen, "Effects of familial risk factors and place of birth on the risk of autism: a nationwide register-based study," *Journal of Child Psychology and Psychiatry* 46:9 [2005], p. 967). On this topic, White's counsel appears to have been in advance of scientific knowledge.

It should be noted that the statement about spouses of widely different ages does not suggest that such marriages are always ill-advised, but cautions that they should not be entered into hastily without carefully considering the potential results. The fact that she specifically approved three marriages of people close to her, despite rather wide differences in age, suggests that some other factors can outweigh the issue of age differences. *S. N. Haskell was 64 when he married *Hetty Hurd, 40 (RY 114, 115). *G. I. Butler at 68 desired to marry Lorena Waite, 33, and Ellen White favored the planned marriage. Others did not, however, and thwarted Butler's intentions (RY 115-120). Five years later, at 73, he married *Elizabeth Work Grainger, 61. It is probably significant that neither the Haskells nor the Butlers had children from their second marriage. On the other hand, *W. C. White was 40 when he married Ethel May Lacey, 21, and she bore him five children, the last when she was 38 and he was 59 (*Francis White, born Sept. 29, 1913).

The *third* and final category of statements to be considered are those that were in harmony with commonly accepted thinking at the time they were given, but which remain partially or wholly unconfirmed by science in the 21st century, such as the causes of volcanoes, the height of antediluvians, amalgamation of humans and animals, and the physical effects of masturbation.

Item 9. Causes of earthquakes and volcanic eruptions. The context of this remark is an aside about some of the residual effects of the Flood. "Immense forests," "buried in the earth," have since "become coal" and oil. When the subterranean coal and oil "ignite, . . . [r]ocks are intensely heated, limestone is burned, and iron ore melted. Water and fire under the surface of the earth meet. The action of water upon the limestone adds fury to the intense heat, and causes earthquakes, volcanoes and fiery issues." (3SG [1864], 79-80). No current theories of volcanism are known to support the precise geological mechanisms she describes, although there is support for several of her assertions. For instance, O. Stutzer's Geology of Coal documents that "subterranean fires in coal beds are ignited through spontaneous combustion, resulting in the melting of nearby rocks that are classed as pseudo volcanic deposits." Stutzer lists several examples, including "a burning mountain," an outcrop that "lasted over 150 years," and "the heat from one burning coal bed [that] was used for heating greenhouses in that area from 1837 to 1868" (O. Stutzer, Geology of Coal [Chicago: University of Chicago Press, 1940], 309-310; cf. E. E. Thurlow, "Western Coal," Mining Engineering 26 [1974], 30-33; and G. S. Rogers, "Baked Shale and Slag Formed by the Burning of Coal Beds," U. S. Geological Survey Professional Paper, 108-A [1918]; all cited in Johns, "Ellen G. White and Subterranean Fires, Part 2," Ministry, October 1977, 19-21).

Item 10. Height of antediluvians and giant fossils. Adam is said to have been more than twice the height of modern men (3SG [1864], 34). The parallel passage in *Patriarchs and Prophets* makes the more moderate claim that Adam's height was "much greater" than that of men who now inhabit the earth (PP 45). A supporting passage says that "Geologists claim" to have found "bones of men and animals, as well as instruments of warfare, petrified trees, et

cetera, much larger than any that now exist," from which these geologists infer the existence of "a race of beings vastly superior in size to any men now living" (PP 112 [1890]). The main objection to this statement pertains to the claim of fossil evidence for "a race of beings vastly superior in size" to humans today. However, Ellen White does not assert this on the basis of revelation; she only reports what geologists "claim" to have discovered, undoubtedly in some contemporary source.

Item 11. *"Amalgamation of man and beast." If there were one sin worse than another before Noah's flood, "it was the base crime of amalgamation of man and beast which defaced the image of God, and caused confusion everywhere" (3SG 64 [1864]). "Every species of animals which God had created was preserved in the ark. The confused species which God did not create, which were the result of amalgamation, were destroyed by the flood. Since the flood, there has been amalgamation of man and beast, as may be seen in the almost endless varieties of species of animals, and in certain races of men" (1SP 78 [1870]). This statement occurs only twice in Ellen White's writings; it was not carried over into *Patriarchs and Prophets* (1890). See discussion at *Amalgamation.

Item 12. *Masturbation, referred to under the Victorian euphemisms "solitary vice" or "secret vice." More current terminology would be sexual "self-stimulation" or "self-pleasuring." The precise intent of her terminology is not known. She did not use the term "masturbation," which has a precise definition. Some who have studied the issue extensively, believe that her terms "solitary vice" and "secret vice" do not refer simply to clinical masturbation, but to the excessive or addictive practice, in association with lustful thoughts. Whatever the precise definition, Ellen White repeatedly warned against this practice, describing in clinical detail the

potential consequences to mental, physical, and moral health (AM 62; 2T 347, 361, 391-392, 402-410, 469-470, 481; 4T 97; 5T 78, 91; CG 444-445, 457-458). What Ellen White wrote on this matter was in general agreement with the beliefs of medical and societal authorities in her day (though she did not endorse their most extreme statements), but is completely rejected, even ridiculed by similar authorities today. However, the change has not come through clinical research, but because of changes in the conventional wisdom of Western society.

On the relation of masturbation to *mental health*, the only published clinical research concludes that the link is primarily psychological, but does not altogether dismiss the possibility of a physical link between masturbation and insanity (E. H. Hare, "Masturbatory Insanity: the History of an Idea," Journal of Mental Science 108, no. 1 [Jan. 1962]; reviewing W. Malamud and G. Palmer, "The Role Played by Masturbation in the Causation of Mental Disturbances," Journal of Nervous and Mental Disorders 76, no. 220 [1932]). Psychological factors by which masturbation affects mental health include fear, guilt, shame, remorse, and loss of self-respect. In the 19th-century world view of eternally burning hell fire, all of these were potent prods to insanity. In the far more secular world of the 21st century, these negative emotions are still factors in a variety of common psychosomatic ailments. Physical factors by which masturbation could effect mental health range from excessive expenditure of nervous energy to nutritional deficiencies. "We hate to say it, but in a zinc-deficient adolescent, sexual excitement and excessive masturbation might precipitate insanity" (C. C. Pfeifer, Ph.D., M.D., Zinc and Other Micro-Nutrients [New Canaan, CT: Keats, 1978], 45). "It is even possible, given the importance of zinc for the brain, that 19th-century moralists were correct when they said that repeated

masturbation could make one mad [insane]!" (D. F. Horrobin, M.D., Ph.D., ed., *Zinc* [St. Albans, Vermont: Vitabooks, 1981], 8).

Regarding the effect of masturbation on *moral and spiritual development*, there is little or no published empirical research; but what evidence there is supports the general tenor of Ellen White's view, especially if she was referring to sexual addiction. For example, the claim of Jesus Christ that lustful thoughts constitute a violation of the seventh commandment (Matt 5:28), surely has implications for the habitual practice of masturbation.

The point White is most ridiculed for is her statements about the potential effects of masturbation on *physical health*. In considering this, Christians should not be embarrassed about a connection between sexual behavior and health, which is explicit in several biblical references (Rom 1:21-32; 1 Cor 6:18). To date, however, there has apparently been no published scientific research on the effects of masturbation on physical health. In the absence of such scientific evidence, there are at least two interpretive options that can harmonize the existing data on this and other problems in this same category, such as *amalgamation and volcanism. Briefly stated, one option is to consider Ellen White's counsel and explanation to be correct and expect that science will eventually discover that she was right. Noted above are several issues—including tobacco as a cause of cancer, the health advantages of a vegetarian diet, and the dangers of older men conceiving children—on which she was clearly in advance of nineteenth-century science, but on which she has eventually received scientific support.

A second interpretive option is to distinguish between the instruction and the explanation, as noted above, considering that Ellen White sought to give force and credibility to her instruction by citing current authorities in support of it. Just as she eventually revised certain

historical details in *Great Controversy to conform to better historical data, so she might have updated some of her scientific explanations had she still been writing when better information was available. Some would cite, in support of this perspective, the fact that her latest, most definitive works introduce subtle advances in her thought, even though she does not revise her earlier works. Patriarchs and Prophets (1890) does not mention amalgamation. Ministry of Healing (1905) does not mention "secret vice." Although one passage about "vice" occurs in a context parallel to that of some of her earlier statements (MH 227), the explicit reference to masturbation and the graphic lists of resulting diseases are both absent.

In support of the first interpretive option (assuming the validity of her statements on masturbation), Richard Nies, a clinical psychologist, has argued persuasively that "there is a difference between the same [sexual] stimulation, whether it exists in the context of love, or whether it exists in the context of self-gratification." He bases this observation on "converging lines of evidence" from four different areas: psychological, moral, physical, and spiritual (Nies, 8-9).

It should be noted that her pronouncements on the topic are much less extreme than were those of many of the health professionals of her day. Further, when she does list potential consequences, she never suggests that all the potential effects of this practice would be experienced by any one person. For example, diseases caused by cigarette smoking account for more than 330,000 deaths per year in the USA (U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, [www.cdc.gov/tobacco/overview/attrdths.htm, accessed Feb. 7, 2006]). The number of tobacco smokers worldwide is now approximately 1 billion, of which one half of one percent (5 million) die each year from diseases directly related

to smoking (National Public Radio, "All Things Considered," July 16, 2006 [www.npr.org, search World Health Organization tobacco, accessed Aug. 7, 2006]; Allan R. Handysides and Peter N. Landless, "Smoking and Heart Disease," *Adventist World-NAD*, Oct. 2006, 11). Yet there are millions of individuals who have smoked for years and still appear to be in good health. Susceptibility to disease from smoking varies greatly with the number and frequency of the cigarettes smoked, the hardiness of the smoker's physical constitution, and the effect of the rest of one's lifestyle. A light smoker who otherwise follows an exemplary physical lifestyle, with excellent nutrition, frequent vigorous exercise, ideal body weight, and abstinence from other harmful habits, may be able for years to resist the harmful effects of tobacco. Such a person may indeed be in better health than a non-smoker who follows a sedentary lifestyle, a high-calorie diet that is deficient in real nutrition, and habitually indulges other unhealthful practices.

Similarly, the list of dread results that White attributes to masturbation does not imply that every person who does it will experience dread consequences. The risk may be compared to an occasional alcoholic drink or cigarette. The experimentation may have some immediate consequences, but the greatest danger of the indulgence is that it may lead to addiction. Similarly with masturbation, the dread physical consequences White attributes to the practice are probably to be seen not as the immediate result of occasional indulgence, but as the potential result of entering a gateway to sexual addiction.

When Ellen White writes that solitary vice kills "thousands and tens of thousands" (4T 97), those numbers are not statistically defined. She does not relate the number to any specific period of time, such as "per year," or to a particular number of people, such as "per million." For comparison, it was noted above that cigarette smoking kills more than 330,000 people *per year*

in the USA, and 5 million per year globally. Yet, on a world-wide, per-capita basis, masturbation is certainly far more common than smoking. The "tens of thousands" of deaths over an unspecified period of time that Ellen White attributes to health problems caused or exacerbated by masturbation, is a tiny fraction (3%) of the number who die *every year* in the USA from smoking. Thus, on a worldwide scale, such a pronouncement need not be seen as a wild exaggeration based on outdated superstitions.

Even if her *explanation* of the physical effects of masturbation could be shown to be overdrawn, the basic *instruction* remains valid: for Christians who are striving for holiness, masturbation represents a self-centered indulgence that falls short of God's ideal, and as such is morally and spiritually detrimental (D. R. Heimbach, *True Sexual Morality* [Wheaton, IL: Crossway, 2004], 222-223). Further, if spiritual and mental health directly influence physical health, and the addictive practice of self-stimulated sex has been shown to be detrimental to spiritual and mental health, then it is not illogical to expect that the addictive practice could be detrimental to physical health as well.

In conclusion, the primary problematic aspects of all the foregoing "problem statements" are first, that they were made by a person who claimed special guidance and revelation from God, and second, that they are read by persons who seek to order their lives by Scripture and by her writings. Apart from those beliefs and commitments, the foregoing statements would be only 19th-century curiosities. But to maintain an intelligent faith in the face of apparent contradictions and inconsistencies often requires reexamining presuppositions and preconceived ideas.

One consideration that pertains to several of the foregoing is the situation at the *Health Reformer* at the time many of these statements were written. Founded in 1866, the Health

Reformer had published some extreme ideas of Dr. Trall (no sugar, no salt, no milk, 3T 19-20), leading to a sharp drop in subscriptions and financial disaster for the fledgling journal. To rescue the Health Reformer, James White became its editor for almost four years (1869-1873), building the circulation to over 10,000 and restoring both the journal and the Health Reform Institute to solvency. During this period, James asked Ellen to head a "department" or column in the paper, which seemed entirely appropriate since the *health vision of 1863 had commissioned the two of them to lead the Adventists into a comprehensive overhaul of their health habits. So she agreed to supply six to eight pages of material for a monthly deadline. Among the articles in Ellen White's department were articles written by herself, but she often quoted paragraphs or extended passages from other contemporary journals. This quoted material was usually enclosed in quotation marks and often identified the source publication as well. Sometimes she commented on the quoted materials and sometimes she did not. Five of the 12 topics examined above come from articles she published in the *Health Reformer* during one four-month period, September to December 1871. Some of the material she quoted seems especially problematic to those who consider that anything cited by a prophet is thereby certified as inspired.

Second, however, Ellen White did not claim infallibility. Nor did she believe that revelations she received through visions necessarily imparted inspired authority to every individual word she wrote. Regarding a minister in California, she wrote in 1909: "I am pained to see him denying the testimonies as a whole because of what seems to him an inconsistency—a statement made by me in regard to the number of rooms in the Paradise Valley Sanitarium.

Brother A says that in a letter written to one of the brethren in southern California, *the statement*

was made by me that the sanitarium contained forty rooms, when there were really only thirtyeight. This, Brother A gives to me as the reason why he has lost confidence in the testimonies."

"The information given concerning the number of rooms in the Paradise Valley Sanitarium was given, not as a revelation from the Lord, but simply as a human opinion. There has never been revealed to me the exact number of rooms in any of our sanitariums; and the knowledge I have obtained of such things I have gained by inquiring of those who were supposed to know. In my words, when speaking upon these common subjects, there is nothing to lead minds to believe that I receive my knowledge in a vision from the Lord and am stating it as such." As a child, she continued, "I gave myself, my whole being, to God, to obey His call in everything, and since that time my life has been spent in giving the message, with my pen and in speaking before large congregations. It is not I who controls my words and actions at such times.

"But there are times when common things must be stated, common thoughts must occupy the mind, common letters must be written and information given that has passed from one to another of the workers. Such words, such information, are not given under the special inspiration of the Spirit of God. Questions are asked at times that are not upon religious subjects at all, and these questions must be answered. We converse about houses and lands, trades to be made, and locations for our institutions, their advantages and disadvantages" (1SM 38-39, emphasis supplied).

In several of the 12 topics considered above, she is clearly citing information obtained from common sources, in which "there is nothing to lead minds to believe" that she received her knowledge "in a vision from the Lord" (ibid.). Four of the 12 (items 1, 2, 3, 7) come from a period in 1871 in which, to help her overworked husband, she had agreed to be in charge of a

"department" in the *Health Reformer* and supply a certain quantity of health-related material for publication every month. In these articles she drew material from her travels, and other experiences and observations, and from other publications of the day, to illustrate and support the health principles she was teaching. It is possible that some of these early statements are a combination of (1) accurate instruction based on visions and (2) explanations gleaned from contemporary publications, which she added because they seemed to give additional force and credibility to the instruction. While this explanation potentially raises additional questions about certain concepts of *inspiration, it is consistent with the recognition of spiritual and intellectual growth in a prophet.

Furthermore, this explanation fits a well-known body of evidence that could be called a corollary to the first major interpretive premise of this article, that *inspiration is not dictational, except on rare occasions, but rather results from "a union of the divine and the human" in such a way that the message from God "is conveyed through the imperfect expression of human language" (GC v-vii, see paragraph 2, above). A corollary to that premise is that to find words to express the truth revealed to them, biblical prophets drew on their entire stock of knowledge, including that gained by experience, study, and research (Dan 9:2; Luke 1:1-4). The biblical prophets refer to many extra-biblical books which they cited in support of their messages received through revelation (see Josh 10:13; 2 Sam 1:17-27; 2 Chron 9:29; 12:15; 20:34). Under inspiration, fragments of information from these sources became integrated into Scripture and preserved for future generations. Although White did not claim the authority of a canonical prophet (see *Prophet, E. G. White Not A"), she did claim to be inspired by the same Spirit as were the canonical prophets (GC viii, x-xii). Nevertheless, in writing out she had seen in vision,

she did not hesitate to use other sources for supplemental details, illustrations, and other kinds of support (see 3SM 446-465). In personal letters, she supported revealed counsel with facts received from common sources (1SM 38-39). In expounding Scripture, she used Bible dictionaries, chronologies, and other resources to expand her knowledge. In writing on historical subjects, she consulted the histories, chronologies, and geographies available to her at the time, even sending assistants to search university libraries for needed information (6Bio 308, 318-319; 3SM 439-440). Further, she was willing in later editions to revise historical details when other sources were shown to be more reliable (3SM 446-465; cf. J. Moon, *W. C. White and E. G. White*, 427-436). It should be noted that the number and extent of such changes have often been exaggerated. Some alleged discrepancies she did not accept as discrepancies, but others she acknowledged and revised (see 6Bio 303-306).

The implication is that her use of scientific and medical literature fits the same pattern. The instruction was derived from revelation, but she buttressed that instruction with the most convincing evidence she could find in the sources available to her at the time she wrote. Before publishing a new book on education or health, she submitted it to persons of education in the field who could give her feedback on what she wrote (Lt 49, 1894; 10MR 12-13). There were times when based on what she had been shown, she disagreed with the authorities in the field, and on several such issues she has been amply vindicated (e.g., tobacco as a malignant poison and the advantages of a vegetarian diet). There were other times when she modified her writings based on what she learned through dialogue with her readers (see 6Bio 303-337).

Finally, the interpretive options offered above fit the evidence concerning the "problematic" statements that are the focus of this article. In every case where Ellen White gives

advice to the reader, that *instruction* was good advice for the circumstances in which it was given. Even in cases where the *explanation* given might retrospectively seem dated, the *instruction* was valid and readers who followed it in a common-sense manner would have benefitted from so doing. More than 320 publications in the peer-reviewed literature on Seventh-day Adventist health show that those who follow her health teachings—whether or not they fully understand all the reasons behind those teachings—have significantly less chronic disease and longer life expectancy than the general population (Fraser, viii, 47, 58 n. 1). *See also:* Amalgamation; Cheese; Creation and Evolution; *Interpretation, Principles of; Revelation and Inspiration.

Further Reading: Leonard Brand and Don S. McMahon, The Prophet and Her Critics (PPPA, 2005); R. W. Coon, "Ellen G. White, Science, and Faith: Part I: the 'Problem' Statements," GSEM534 Lecture Outline, revised May 9, 1995, CAR; G. E. Fraser, Diet, Life Expectancy, and Chronic Disease: Studies of Seventh-day Adventists and Other Vegetarians (Oxford: Oxford University Press, 2003); R. Nies, Give Glory to God, [sound recording] (Redlands, CA: Study Tapes, 1977); transcription in DF 109-a, CAR.

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