

## Excursus 5

### Science and Mormonism

SCIENCE and Mormonism have nearly always been on very friendly terms, with Church members sharing the deep conviction that, as expressed by former scientist and apostle Elder James E. Talmage, “within the gospel of Jesus Christ there is room and place for every truth thus far learned by man, or yet to be made known.”<sup>122</sup> With respect to the idea that the Church is required to welcome religious and moral truth from all sources, President Brigham Young stated:

“Mormonism”... embraces every principle pertaining to life and salvation... no matter who has it. If the [unbeliever] has got truth, it belongs to “Mormonism.” The truth and sound doctrine possessed by [other churches], and they have a great deal, all belong to this Church... All that is good, lovely, and praiseworthy belongs to this Church... “Mormonism” includes all truth. There is no truth but what belongs to the Gospel.<sup>123</sup>

With specific regard to scientific truth, President Young’s approach was no less open and all-embracing. As Barlow summarizes:

Brigham Young’s position was in one sense more “liberal” even than that of [many contemporaries]. Not a scholar himself and easily put off by what he saw as scholars’... pretentious ways, Young still wished to distance the Mormon response to science from what he took to be the common Christian reaction. Widespread infidelity in the world did not surprise him, he said, because religious teachers often advanced notions “in opposition to... facts demonstrated by science,” making it difficult for honest, informed people to embrace the claims of religion. Geology, to take a specific instance, “is a true science; not that I would say for a moment that all the conclusions and deductions of its professors are true, but its leading principles are; they are facts...” “[Our] geologists... tell us that this earth has been in existence for thousands and millions of years... [and Mormonism] differ[s] from the Christian world, for our religion will not clash with the facts of science.”<sup>124</sup>

Moreover, President Young said:

The idea that the religion of Christ is one thing, and science is another, is a mistaken idea, for there is no true religion without true science, and consequently there is no true science without true religion.<sup>125</sup>

Subsequent Presidents and General Authorities of the Church have advanced similar views about the ultimate compatibility of religious and scientific truths and, with notably few exceptions, have maintained markedly positive attitudes toward both the methods and conclusions of mainstream science and the advance of modern technology. A barometer for the positive attitude toward science among the membership of the Church has been a series of studies over the last several decades documenting numbers of scientists with backgrounds in different faith groups. For example, LDS historian of science Erich Paul noted:

... a 1974 article appearing in *Science*—published by the largest scientific society in America, the *American Association for the Advancement of Science*, and, along with the British journal *Nature*, certainly the most influential science magazine—reported that Mormonism had

122 J. E. Talmage, *Earth and Man*, p. 252.

123 B. Young, 8 April 1867, p. 375; B. Young, *Discourses*, p. 3.

124 P. L. Barlow, *Bible*, pp. 90-91. See B. Young, 14 May 1871, pp. 115-117.

125 B. Young, 3 May 1874, p. 52.

produced more scientists per capita than virtually all religious movements in twentieth-century America.<sup>126</sup> Although there are social, religious, and theological reasons for this mostly supportive relationship, the facts strongly indicate that Mormonism and at least science as philosophy are basically non-combative.<sup>127</sup>

A more recent study reported that in the 1990 listing of 120,000 American Men and Women of Science, “Utah stood 21 percent above the second place state, which was Delaware.”<sup>128</sup> This was despite the fact that there were more Mormon scientists outside of Utah and Idaho than inside, that practicing Mormons no longer constitute the majority population in Utah, and that there has been an increase in the overall orthodoxy of Mormon scientists.<sup>129</sup>

Such findings about LDS scientists are consistent with other studies affirming an exceptional proportion of Mormons in American university faculties across all disciplines. A major survey published in 2007 reported that while non-LDS “Christians are underrepresented among faculty,” Mormons are “overrepresented compared to the general public.”<sup>130</sup>

Although the reasons for the attraction of science and academia for members of the Church have not been adequately studied, BYU professor and administrator Noel B. Reynolds offers one opinion:

In spite of occasional eruptions of anti-intellectualism in the LDS community, the long-term reality has been that Mormons, perhaps more than any other religious group, seek and respect learning.<sup>131</sup> Joseph Smith set the example himself, establishing schools for adults and studying biblical languages. The LDS community has always produced far more than its share of highly educated people... [and in the LDS community] the more educated a person is, the more likely he or she is to be fully observant and faithful.<sup>132</sup>

There may be good reasons for this surprising characteristic of the Latter-day Saints. Mormonism is a religion of both the spirit and the intellect. Mormon missionaries tell their investigators that they have answers to the great human questions. Conversion stories are always stories of learning and inspiration... Mormonism is not a religion that tells its members they have no right to know the divine mysteries.<sup>133</sup> Rather, it tells them to seek knowledge of all things. There is nothing that God is not willing to reveal to his children, even to the point of showing himself to them on special occasions.

Nor are Mormons taught to be irrational or to despise logic in their understanding of the divine. From Joseph Smith to the present prophets, the Saints have always been urged to grasp a grand and coherent vision of themselves and their relationship to God. They are urged to acknowledge contradictions in their own lives and beliefs and to reconcile themselves to the full set of gospel truths. Latter-day Saints learn early that the Spirit can be their most valuable asset in this great quest, and that there is no true opposition between mind and spirit. The two must function harmoniously together to reach fully satisfying truth.

It would be fair to say that Latter-day Saints see themselves as both prophets and intellectuals. They depend daily on spiritual guidance, and they treasure deeply the understanding of God and his world that they have been given. They feel responsible to search the scriptures as a means of strengthening their spirits and their understandings simultaneously. They are

126 K. R. Hardy, *Origins*.

127 E. R. Paul, *Science*, pp. 6-7.

128 R. T. Wooton, *Saints*, p. 58.

129 See *Endnote E-14*, p. 707.

130 G. A. Tobin, *et al.*, *Religious Beliefs*, p. 20. See *Endnote E-15*, p. 707.

131 See *Endnote E-16*, p. 708.

132 See *Endnote E-17*, p. 708.

133 See *Endnote E-18*, p. 708.

suspicious of people who seem to emphasize one of these sources of knowledge to the neglect of the other.<sup>134</sup> Both are God-given, and both are necessary for a fulness of life.

The testimony that individual Latter-day Saints bear of the truthfulness of the Church and the Book of Mormon, as well as the other revelations of Joseph Smith is highly personal. The mind and spirit of a man or woman are finally quite private in their innermost workings. Each person must come to that mix of understanding and spiritual assurance that he or she finds adequate. There is nothing that others can hand out off a shelf that will do the job. It requires personal inquiry, reflection, prayer, and openness to God's revelations.<sup>135</sup>

With respect to the creation account in Genesis, the Latter-day Saints have avoided some of the serious clashes with science that have troubled other religious traditions. For example, they have no serious quarrel with the concept of a very old earth whose "days" of creation seem to have been of very long, overlapping, and varying duration.<sup>136</sup> With respect to beliefs about the origin of man, Sorenson emphasizes the point that acceptance of essential doctrinal claims rather than belief in a particular *modus operandi* for the creation of man is ultimately the determinant of Mormon orthodoxy:

While the current state of revealed truth on the LDS doctrine of man's origin may permit some differences of opinion concerning the relationship of science and religion, it clearly affirms that God created man, that the Fall of Adam was foreknown of God and was real and significant, and that the Atonement of Christ was foreordained and necessary to reverse the effects of the Fall. Perhaps because these claims embrace the main doctrinal issues relevant to the condition of man, the description of the actual creation process does not receive much attention from the general membership of the Church or from the authorities.<sup>137</sup>

There are other indicators of LDS moderation on these potentially divisive issues. For example, while the issue of how school teachers should handle questions about the origin of man has occasionally surfaced in public discussion, Utah and other states with large LDS populations have wisely refrained from embracing creationist agendas in their science curricula. Consistent with this stance, LDS scientist David Bailey has very competently summarized scientific inadequacies and theological incompatibilities of the creationist movement in both its "young earth" and "intelligent design" forms.<sup>138</sup> No matter how well-intentioned, Gingerich insightfully observes that intelligent design is "misguided when presented as an alternative to the naturalistic explanations offered by science, which do not explicitly require the hand of God... This does not mean that the universe is actually godless, just that science within its own framework has no other way of working."<sup>139</sup> He characterizes the universe in which we live as one "... where God can play an interactive role unnoticed by science, but not excluded by science."<sup>140</sup> Similarly, BYU Philosophy Professor James Faulconer argues that although scientists need not take a strictly scientific attitude except when they are explicitly doing science, the "scientific region, the region in which one investigates bodies using the assumptions, methods, and background of science, is necessarily godless. Scientific objects, themselves 'impoverished' or abstracted objects,

134 See, e.g., D&C 88:118.

135 N. B. Reynolds, *Preface*, p. xi.

136 See the overview of Moses 2, p. 84 and *Commentary 2:5-e*, p. 103.

137 J. L. Sorenson, *Origin*, p. 1053. See *Endnote E-19*, p. 709.

138 D. H. Bailey, *Mormonism*; D. H. Bailey, *Deceiver*; D. H. Bailey, *Latter-day*; D. H. Bailey, *Church and Evolution*; D. H. Bailey, *What's Wrong*. See *Endnote E-20*, p. 709.

139 O. Gingerich, *Universe*, p. x.

140 *Ibid.*, p. 111.

incarnate the work and understanding of that region. Other objects incarnate other regions and orderings.”<sup>141</sup> Continuing, he explains:

This is not to criticize scientists for that attitude or to suggest that God ought to be part of science. A great many other important things also do not exist in a world inhabited scientifically, things such as morality and value or, of less consequence, good taste in food or clothing. That absence is the consequence of the specialized incarnation required of science and is only a problem if scientists (or more often those who idolize science because they know too little of it) forget that such a specialized incarnation is not the only one, the best one, or the final one.<sup>142</sup>

Even some of the most doubting of scientists have stated their willingness to keep their mind open to the possibility of a God—so long as it is a God “worthy of [the] grandeur”<sup>143</sup> of the Universe. For example, the well-known skeptic Richard Dawkins stated: “If there is a God, it’s going to be a whole lot bigger and a whole lot more incomprehensible than anything that any theologian of any religion has ever proposed.”<sup>144</sup> Similarly, Elder Neal A. Maxwell approvingly quoted the unbelieving scientist Carl Sagan, noting that he:

... perceptively observed that “in some respects, science has far surpassed religion in delivering awe. How is it that hardly any major religion has looked at science and concluded, ‘This is better than we thought! The Universe is much bigger than our prophets said—grander, more subtle, more elegant. God must be even greater than we dreamed?’ Instead, they say, ‘No, no, no! My god is a little god, and I want him to stay that way.’ A religion, old or new, that stressed the magnificence of the Universe as revealed by modern science might be able to draw forth reserves of reverence and awe hardly tapped by the conventional faiths. Sooner or later, such a religion will emerge.”<sup>145</sup>

The characteristic of awe mentioned by Sagan—so vital to the pursuit of knowledge in both science and religion—has been equated by Elder Maxwell with the scriptural term “meekness.”<sup>146</sup> Among other things, an attitude of meekness requires moving forward according to the best of our knowledge while simultaneously recognizing the provisional nature of our current understanding.<sup>147</sup> Indeed, it is because of the limits of our knowledge that we court danger when we try to effect a premature reconciliation of scientific and religious issues. BYU emeritus Professor of Physics and Astronomy B. Kent Harrison wisely wrote:

Some disagreements [between science and religion] are inevitable because our knowledge is incomplete. But we believe in a unified truth and so we eventually expect agreement. It is tempting to seek agreement now. *However, it is inappropriate, and often dangerous, to attempt a premature reconciliation or conflicting ideas where there is a lack of complete knowledge.*<sup>148</sup> If a scientist concludes that there is no God—based on inadequate evidence!—and thereby casts doubt on those who believe in God, he does them a disservice. For example, it is inappropriate for a scientist who accepts organic evolution to claim that there is no God. (However, many scientists do indeed take the position that they cannot comment on religious truth because they have little or no information on it.)

141 J. E. Faulconer, *Incarnation*, p. 41.

142 *Ibid.*, p. 59. See also F. J. Ayala, *Darwin’s Gift*, pp. 171-202; M. Heidegger, *Technology*, pp. 115-182.

143 R. Dawkins in D. Van Biema, *God vs. Science*, p. 55.

144 In *ibid.* See *Endnote E-21*, p. 710.

145 Cited in N. A. Maxwell, *Cosmos*, p. 1. See *Endnote E-22*, p. 710.

146 N. A. Maxwell, *Disciple-Scholar*, pp. 14-18. See *Endnote E-23*, p. 710.

147 See *Endnote E-24*, p. 710.

148 See *Endnote E-25*, p. 710.

Similarly, if an ecclesiastic states that such and such a scientific idea is not true—based on inadequate evidence!—then he does a disservice to the scientist who has carefully explored that idea. As a hypothetical example, it would be inappropriate for a church authority to make a flat statement that special relativity is invalid because it limits information transmission such as prayer to the very slow (!) speed of electromagnetic waves. It may later turn out to be invalid in some sense, but current experimental and other considerations support it strongly.<sup>149</sup>

*The proper stance, it seems, is to withhold judgment on such questions until we have more information<sup>150</sup>—but also to take advantage of what knowledge we do have.<sup>151</sup>*

Some take the fact that science reverses its positions from time to time as a disturbing thing. On the contrary, I feel that we should take such events as encouraging news. In this regard, I side with those who locate the rationality of science not in the assertion that its theories are erected upon a consistent foundation of undeniable facts, but rather in the idea that it is at heart a self-correcting enterprise that can put any of its claims in jeopardy—though, of course, not all at once.<sup>152</sup>

The most effective scientists move forward by adopting a given way of understanding their domain of interest, not simply because they might feel “justified” by the best available evidence in doing so, but more fundamentally because in actual practice the most effective means of investigation available is to commit oneself to a position and then, from that vantage point, to explore its consequences thoroughly.<sup>153</sup> We put on our chosen perspectives like a pair of glasses, and then try them out for a while to see if our capacities both for navigation and for additional discovery have increased.<sup>154</sup> In this way, scientific theory becomes useful not merely as a picture of reality but, more importantly for the ongoing process, as “a device for the attainment or formulation of greater knowledge about it.”<sup>155</sup> This requires one to embrace not only the question “How do we know our hypotheses are correct?” but also “How can we, to the greatest possible degree, expose our hypotheses to the light of experience in order to evaluate and refine them as thoroughly as possible?” Relative to this point, Hugh Nibley has written that the aim of honest scholarly discussion should be “to talk about the material at hand, hoping that in the course of the discussion every participant will privately and inwardly form, reform, change, or abandon his opinions... and thereby move in the direction of greater light and knowledge.”<sup>156</sup> Speaking about religious matters, the Apostle Paul succinctly expressed a similar idea: “Prove [i.e., examine, put to the test] all things; hold fast that which is good.”<sup>157</sup>

149 See *Endnote E-26*, p. 711.

150 See *Endnote E-27*, p. 711.

151 B. K. Harrison, *Truth*, pp. 153-154.

152 G. Bateson, *Mind*, p. 216; G. Bateson, *et al.*, *Angels*, pp. 36-49; W. Weimer, *Notes*, pp. 47-49.

153 W. Weimer, *Notes*, p. 49.

154 *Ibid.*, pp. 72-74.

155 A. Kaplan, *Inquiry*, p. 286. See *Endnote E-28*, p. 711.

156 H. W. Nibley, *Since*, p. xiv; cf. W. Weimer, *Notes*, pp. 78-86. See also M. J. Mahoney, *Scientist*, pp. 195-220.

157 1 Thessalonians 5:21. Representative works for understanding the broader history and the wide-ranging and complex sets of assumptions involved in recent debates about religion and science include D. N. Brems, *Divine Engineering*; A. R. Buskirk, *Science*; F. S. Collins, *Language*; P. Dowe, *Galileo*; A. Flew, *There Is*; K. W. Giberson, *Saving Darwin*; O. Gingerich, *Universe*; K. R. Miller, *Darwin's God*; J. P. Moreland, *et al.*, *Views*; R. L. Numbers, *Creationists*; M. Ruse, *Evolution-Creation*. Walker provides a discussion of prominent works by proponents of scientific atheism from an LDS point of view (S. C. Walker, *Selling*).

## Excursus 6

### The Authority and Power of Scripture

THESE are few other branches of Christianity that revere Holy Scripture as do the Latter-day Saints. Yet, paradoxically, there is no other Christian faith that has felt such liberty—or rather such *necessity*—to continually add to and even revise it.<sup>158</sup> This is because Latter-day Saints are not fundamentally a “People of the Book” but instead a “People of Continuing Revelation.”<sup>159</sup> In other words, not only do they subscribe to the idea of an expanded canon through the acceptance of three additional books of scripture besides the Bible, but also to the concept of an open and unended one,<sup>160</sup> regarding efforts to “harden on the all-sufficiency or only-sufficiency of any part of scripture” as tantamount “to prais[ing] the cup and reject[ing] the fountain.”<sup>161</sup> Thus, members of the Church hold that sacred texts are not only always open to the rendering of a “plainer translation,”<sup>162</sup> but also to the possibility of significant expansion and elaboration by the current President of the Church.<sup>163</sup> The priority of prophetic prerogative over the authority of any written text is expressed by Elder Orson F. Whitney as follows:

No book presides over this Church and no book lies at its foundation. You cannot pile up books enough to take the place of God’s priesthood inspired by the power of the Holy Ghost.... No man ought to contend for what is in the books, in the face of God’s mouthpiece, who speaks for him and interprets his word. To so contend is to defer to the dead letter in preference to the living oracles, which is always a false position.<sup>164</sup>

Of course this understanding does not presume a contest between scripture, on the one hand, and the direction of the leaders of the Church, on the other, for when living prophets speak under inspiration, their words become a part of scripture itself. Thus, in former times, wrote the Apostle Peter, scripture was the result of a process whereby “holy men of God spake as they were moved by the Holy Ghost”<sup>165</sup> and, as long as the Holy Ghost can so operate, scripture will continue to come forth by the same means.<sup>166</sup> Elaborating on this principle, a revelation to Joseph Smith in 1831 stated:

2 And, behold, and lo, this is an ensample unto all those who were ordained unto this priesthood, whose mission is appointed unto them to go forth—

3 ... that they shall speak as they are moved upon by the Holy Ghost.

4 And whatsoever they shall speak when moved upon by the Holy Ghost shall be scripture, shall be the will of the Lord, shall be the mind of the Lord, shall be the word of the Lord, shall be the voice of the Lord, and the power of God unto salvation.<sup>167</sup>

Hence, to Latter-day Saints, a closed and immutable canon is inconsistent with the idea of God’s continuing revelation, as expressed in the ninth *Article of Faith*: “We believe in all that

<sup>158</sup> See *Endnote E-29*, p. 711.

<sup>159</sup> D. H. Oaks, *Scripture Reading*, p. 7. See *Excursus 49: The People of the Book*, p. 651.

<sup>160</sup> 2 Nephi 29:3-14; A. B. Morrison, *Canon*, pp. 3-4.

<sup>161</sup> T. G. Madsen, *Essay*, p. xf. See *Endnote E-30*, p. 712.

<sup>162</sup> D&C 128:18.

<sup>163</sup> J. F. Smith, *Gospel Doctrine*, 1902, pp. 36-37.

<sup>164</sup> O. F. Whitney, 7 October 1916, pp. 55-56. See *Endnote E-31*, p. 712.

<sup>165</sup> 2 Peter 1:20.

<sup>166</sup> See *Endnote E-32*, p. 712.

<sup>167</sup> D&C 68:2-4. See *Endnote E-33*, p. 712.

bound to fail as “proofs” of the existence of God.<sup>1555</sup>

E-13. Unbelieving scientist Krauss expresses a related thought:

Carl Sagan... said that absence of evidence is not the same as evidence of absence. Would a world without God necessarily look any different than the world we live in? Most scientists would say no, and thus claim we do not need the God Hypothesis to explain anything about nature. On the other hand one might also ask: Would a world with a God necessarily look any different than the world we live in? People of faith would argue no, and in so doing feel vindicated in their faith. The problem is that both groups are correct, and nothing either can say is likely to influence the other.<sup>1556</sup>

E-14. Reynolds reports his informal observation that: “The overwhelming majority of LDS academics and intellectuals are active, faithful Latter-day Saints.”<sup>1557</sup>

E-15. Other groups specifically noted as being overrepresented were Jewish faculty, faculty espousing atheism or no religion, and Buddhist faculty.<sup>1558</sup> Note that 75% of the overall faculty said that religion was not important to them.

As a side note, 53% of university faculty hold unfavorable views of evangelical Christians, “leading Mormons as the least liked religious group by 20%.”<sup>1559</sup> Note also that faculty opinion about the LDS tended to be much more polarized than that of the general public, with significantly fewer reporting neutral feelings (20% vs. 42% of the general population) and 40% (vs. 33%) reporting favorable feelings.<sup>1560</sup>

With respect to American scientists, a 1996 survey reported that “39 percent profess belief in God” and a 1997 survey found that “over half consider themselves ‘moderately spiritual’ to ‘very spiritual,’ and about a third hold formal religious affiliations.”<sup>1561</sup> By way of contrast, 94-96 percent of the public at large professes a belief in God.<sup>1562</sup>

Unfortunately, there are many reasons why thoughtful people might be disinclined to take religion seriously. Among these is the fact that popular religious understanding often solely “rests on a caricature of religious fundamentalism” which is seen “as a reactionary movement bent on reversing all the progressive measures achieved over the last... decades.”<sup>1563</sup> Other people, according to sociologist Rodney Stark, may be put off in knowing “that many illusory or even fraudulent religious claims have been advanced” over the course of history.<sup>1564</sup> Moreover, “comparisons among religions can easily be corrosive to faith because one must confront the fact that, since they disagree, not all religions can be entirely true. From there it is a small step to conclude that all religions are false, that ‘all are refuted by all,’ as the renegade monk Jean Bodin put it in 1593.”<sup>1565</sup> Conversely, “similarities among the world’s religions... [sometimes may be] taken as ‘proof’ that they all are human inventions.”<sup>1566</sup> Finally, some people are swayed by arguments that religious belief is nothing more than a combination of biological, psychological, and/or cultural imperatives.

While ultimate satisfaction of such concerns cannot be obtained by reasoned argument alone, perhaps at least a few fallacies can be swept aside. First, no serious believer would hold that each

1555 D. Wilkinson, *Hawking*, pp. 135-167.

1556 L. M. Krauss *et al.*, *Science* (online).

1557 N. B. Reynolds, *Preface*, p. x.

1558 G. A. Tobin, *et al.*, *Religious Beliefs*, p. 20.

1559 *Ibid.*, p. 12.

1560 A September 2007 Pew opinion poll, taken of the general American public following a period of greater visibility of Mormonism during the Mitt Romney presidential campaign, gave the following Favorable-Unfavorable-No Opinion breakdowns: Jews (76-9-15%), Catholics (76-14-10%), Evangelical Christians (60-19-21%), Mormons (53-27-20%), Muslim Americans (53-29-18%), Muslims (43-35-22%), Atheists (35-53-12%). The poll also found that “having an acquaintance who is Mormon is linked with more positive opinions of Mormons and Mormonism. The large majority of those who know a Mormon (60%) express a favorable view of Mormons, compared with fewer than half (44%) of those who do not personally know a Mormon. And those who are acquainted with a Mormon are 11 points more likely than others to say that Mormonism and their own religion have a lot in common” (*Public expresses mixed views of Islam, Mormonism*).

1561 M. Shermer, *Darwin*, pp. 126-127.

1562 S. Atran, *In Gods*, p. 276.

1563 C. Lasch, *Revolt*, p. 215.

1564 R. Stark, *Discovering*, p. 8.

1565 *Ibid.*, pp. 1-2.

1566 *Ibid.*, p. 2.

of the sundry and contradictory collections of spiritual beliefs and practices held at one time or another by individuals are rooted in divine revelation. “Some revelations are of God,” the Prophet Joseph Smith is remembered as saying, “some revelations are of man: and some revelations are of the Devil.”<sup>1567</sup> Moreover, it should not be forgotten that even authentic revelations may be “subject to misunderstanding, exaggeration, and faulty transmission.”<sup>1568</sup> Regarding religious similarities among diverse groups, many believers are prepared to accept the possibility that “authentic revelations underlie many of the major faiths.”<sup>1569</sup> Finally, with respect to the “insufficiency of all biological approaches to explaining religion, or any other aspects of human culture,” the most important consideration in Stark’s view “is that they are unnecessary! The fundamental biological basis of all culture is general intelligence, and nothing more needs to be postulated.”<sup>1570</sup>

“Thus,” writes Stark, “we reach the fundamental question: Does God exist? That is, have we discovered God? Or have we invented him? Are there so many similarities among the great religions because God is really the product of universal wish fulfillment? Did humans everywhere create supernatural beings out of their need for comfort in the face of existential tragedy and to find purpose and significance in life? Or have people in many places, to a greater and lesser degree, actually gained glimpses of God?”<sup>1571</sup> Once the possibility of authentic divine revelation is granted, attention can be turned to the “immense and humbling challenge” of determining “which ones are valid.”<sup>1572</sup>

- E-16.** Elder Neal A. Maxwell wrote: “For the disciple of Jesus Christ, academic scholarship is a form of worship. It is actually another dimension of consecration. Hence one who seeks to be a disciple-scholar will take both scholarship and discipleship seriously; and, likewise, gospel covenants.”<sup>1573</sup> Stott similarly concludes that “Latter-day Saint theology appears to negate the secularizing impact of education by sacralizing it.”<sup>1574</sup>
- E-17.** While national data indicate that, overall, the most educated are the least religious, among some denominations—and most dramatically among Mormons—there is a strong *positive* correlation. “Highly-educated Mormons are more likely to pray frequently, to have strong religious beliefs and to attend meetings, suggesting that devotion is even more important for those with higher levels of education than those with lower educations.”<sup>1575</sup> This is due at least in part to the fact that from its very beginning, the Church has placed significant emphasis upon education. “One result of this has been a standard of educational attainment that is significantly higher than the national average. . . . For both males and females, the percentage of Mormons who have completed post-high-school education is significantly higher than is the case for the [U.S.] population as a whole. For Mormon males, 53.5 percent have some post-high school education compared to 36.5% for the U.S. population. For females, the figures are 44.3 for Mormons and 27.7 for the U.S. population generally.”<sup>1576</sup>
- E-18** While not intending to promote “unlicensed and irresponsible speculation” or “falling in love with one’s own reason,”<sup>1577</sup> Madsen writes:<sup>1578</sup>

Some problems are 100-percent guaranteed insoluble for now. Many others, though not insoluble, are not of particular interest. But there are some mysteries, which the scriptures call “the mysteries of godliness,”<sup>1579</sup> the deeper things, the richer things, and they are of which I suspect the Prophet spoke when he said, I beseech you go forward and “search deeper and deeper into the mysteries of Godliness.”<sup>1580</sup> These are the mysteries you are to pursue.

1567 Cited in D. Whitmer, *Address*, p. 31; cf. J. Smith, Jr., *Teachings*, 16 May 1841, p. 189. See also B. H. Roberts, *Comprehensive History*, 1:162-163

1568 R. Stark, *Discovering*, p. 52.

1569 *Ibid.*, pp. 2-3.

1570 *Ibid.*, p. 43.

1571 *Ibid.*, p. 20.

1572 *Ibid.*, p. 8.

1573 N. A. Maxwell, *Disciple-Scholar*, p. 7.

1574 G. Stott, *Effect*, p. 52. See also T. L. Givens, *Paradox*, pp. 65-99, 195-240; J. W. Welch, *Thy Mind*.

1575 S. L. Albrecht, *et al.*, *Secularization*, p. 308.

1576 *Ibid.*, p. 302.

1577 President Joseph F. Smith described this danger as reading “by the lamp of [our] own conceit” (J. F. Smith, *Gospel Doctrine*, 1907, p. 373; cf. Colossians 2:8).

1578 T. G. Madsen, *Nine Lessons*, p. 114.

1579 1 Timothy 3:16; D&C 19:10.

1580 J. Smith, Jr., *Words*, 12 May 1844, p. 366; J. Smith, Jr., *Documentary History*, 12 May 1844, 6:363. “That the mysteries of godliness were a desirable subject of righteous pursuit is suggested by the following passages: Psalm

In further explanation, he continues:<sup>1581</sup>

But Joseph Smith counseled against futile and divisive speculation: “Let mysteries alone lest you be overthrown.”<sup>1582</sup> He adds: “A man can do nothing for himself unless God directs him in the right way; and the priesthood is for that purpose.”<sup>1583</sup> The context for these remarks is the temple,<sup>1584</sup> and temple learning requires more than abstract reflection. We are taught:<sup>1585</sup> “These revelations, which are reserved for and taught only to the faithful Church members in sacred temples, constituted what are called the ‘mysteries of Godliness.’<sup>1586</sup> The Lord said He had given to Joseph ‘the keys of the mysteries, and the revelations which are sealed.’<sup>1587</sup> As a reward to the faithful, the Lord promised: ‘And to them will I reveal all mysteries, yea, all the hidden mysteries of my kingdom from days of old.’”<sup>1588</sup>

Nibley<sup>1589</sup> reinforces the same point:

Not everything is incomprehensible to everybody: “It is given unto you to know the mysteries of the kingdom of heaven, but to them it is not given...”<sup>1590</sup> So we see that mystery is knowledge not known to some: “He that hath ears to hear, let him hear.”<sup>1591</sup> “Behold my beloved brethren, I will unfold this mystery unto you”<sup>1592</sup>... A people are condemned who “will not search knowledge, nor understand great knowledge, when it is given unto them in plainness.”<sup>1593</sup> We make our own mysteries; we are not meant to be kept in darkness, and the mysteries of heaven will be unfolded to us as we make an effort to understand them.<sup>1594</sup>

**E-19.** Erich Paul draws a similar conclusion:

Although the Darwinian redefinition of humanity’s place in nature has affected all of Western thinking in deep and lasting ways, Darwinism, rather than cosmology, had a far greater impact on Protestants than on Mormons. Although mainstream Christianity eventually made peace with Darwinism, in general Christians initially responded defensively to the emergence of organic evolution, partly because cosmology was never an integral part of Protestant theology, as it was (and is) for Mormonism, but also because Protestants before Darwin interpreted mankind’s origins exclusively from a literal reading of Genesis whereas Mormons strongly augmented their views from contemporary revelation and other prophetic sources.<sup>1595</sup>

Nibley points out that to Brigham Young “it was the economic and political rather than the scientific and biological implications of natural selection that were the real danger and the most counter to the gospel.”<sup>1596</sup>

**E-20.** Of course, the various proponents of creationism vary widely in their fundamental assumptions (e.g., age of the earth, common descent) and in their stance with respect to scientific methodology. In contrast to Bailey’s view, Sherlock provides a controversial defense of the scientific viability of

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25:14; Daniel 2:28; Matthew 13:11; 1 Corinthians 4:1; 1 Nephi 2:16, 10:19; Alma 12:9-11; D&C 6:7, 19:8-10 (4-22), 42:61, 50:24-30, 76:5-10, 114-119, 84:19, 88:49-50, 63-69 (49-69), 93:1, 19-22, 26-28, 36-39, 107:18-19, 121:26-28, 132:23... Nevertheless, this important attribute of godliness is only part of the attribute of charity (1 Corinthians 13:2; 2 Peter 1:5-7)” (A. F. Ehat and L. W. Cook, in J. Smith, Jr., *Words*, p. 402 n. 3).

1581 T. G. Madsen, *Nine Lessons*, pp. 117-118.

1582 J. Smith, Jr., *Words*, 8 April 1843, p. 189.

1583 J. Smith, Jr., *Documentary History*, 12 May 1844, 6:363. T. Bullock’s notes vary slightly: “... the priesthood is reserved for that purpose” (J. Smith, Jr., *Words*, 12 May 1844, p. 366).

1584 See D&C 76:7, 128:7.

1585 H. B. Lee, *Teachings 1996*, July 1961, p. 575. Elder Lee continues: “In this sense, then, a mystery may be defined as a truth which cannot be known except by revelation.”

1586 1 Timothy 3:16, D&C 19:10.

1587 D&C 28:7.

1588 D&C 76:7.

1589 H. W. Nibley, *Assembly*, pp. 137-138.

1590 Matthew 13:11.

1591 Matthew 11:15.

1592 Jacob 4:18.

1593 2 Nephi 32:7.

1594 See H. W. Nibley, *House of Glory*, p. 330.

1595 E. R. Paul, *Science*, p. 2. For a highly readable overview on this topic from a Catholic perspective, see R. J. Clifford, *Value*.

1596 H. W. Nibley, *Work*, p. 207. See B. Young, *Knight*, 19 October 1876, p. 199.

“intelligent design” research and discusses its implications for an LDS audience.<sup>1597</sup> For additional reliable and accessible critiques of creationism and intelligent design that include respectful discussions of religious belief, see F. J. Ayala, *Darwin*; F. J. Ayala, *Darwin’s Gift*; R. M. Frye, *Creationist*; M. Shermer, *Darwin*.

- E-21. As a matter of scientific principle, Dawkins classes himself as a TAP (Temporary Agnostic in Practice), though he thinks the probability of a God is very small, and certainly in no sense would want to be “misunderstood as endorsing faith.”<sup>1598</sup>
- E-22. Though personally rejecting the notion of a personal God, Albert Einstein is an example of one whose deeply-held “vision of unity and order”<sup>1599</sup>—which throughout his life played an important role in shaping his scientific intuitions<sup>1600</sup>—was chiefly motivated by his profound sense of awe and humility in the face of the lawful and “marvelously arranged” universe: “Everyone who is seriously involved in the pursuit of science becomes convinced that a spirit is manifest in the laws of the Universe—a spirit vastly superior to that of man, and one in the face of which we with our modest powers must feel humble.”<sup>1601</sup> Often more critical of the debunkers of religion than of naïve believers in God, he explained: “The fanatical atheists are like slaves who are still feeling the weight of their chains which they have thrown off after hard struggle. They are creatures who—in their grudge against traditional religion as the ‘opium of the masses’—cannot hear the music of the spheres.”<sup>1602</sup>
- E-23. Illustrating this attitude of meekness with an anecdote about his scientist father, Elder Henry B. Eyring wrote:

Some of you have heard me tell of being in a meeting in New York as my father presented a paper at the American Chemical Society. A younger chemist popped up from the audience, interrupted, and said: “Professor Eyring, I’ve heard you on the other side of this question.” Dad laughed and said, “Look, I’ve been on every side of it I can find, and I’ll have to keep trying other sides until I finally get it figured out.” And then he went on with his lecture. So much for looking as though you are always right. He was saying what any good little Mormon boy would say. It was not a personality trait of Henry Eyring. He was a practicing believer in the Lord Jesus Christ. He knew that the Savior was the only perfect chemist. That was the way Dad saw the world and his place in it. He saw himself as a child. He worked his heart out, as hard as he could work. He was willing to believe he didn’t know most things. He was willing to change any idea he’s ever had when he found something which seemed closer to the truth. And even when others praised his work, he always knew it was an approximation in the Lord’s eyes, and so he might come at the problem again, from another direction.<sup>1603</sup>

- E-24. In this spirit, Nibley famously responded to a reappraisal of his interpretation of one of the book of Abraham facsimiles:

I refuse to be held responsible for anything I wrote more than three years ago. For heaven’s sake, I hope we are moving forward here. After all, the implication that one mistake and it is all over with? How flattering to think in forty years I have not made one slip and I am still in business! I would say about four-fifths of everything I put down has changed, of course. That is the whole idea—this is an ongoing process...<sup>1604</sup>

- E-25. Nibley wrote about:

... the first rule of scholarship: You are never playing with a full deck. You never know how much evidence you may be missing, what it is, or where it is hiding. What counters that and saves the day for scholarship is what I have called the ‘Gas Law of Learning,’ namely, that any amount of knowledge, no matter how small, will fill any vacuum of ignorance, no matter how large. He who knows one or two facts can honestly claim to know at least something about a subject, and nobody knows everything. So it is with the schoolmen who make the rules and move the goalposts.<sup>1605</sup>

1597 R. Sherlock, *Intelligent Design*.

1598 L. M. Krauss, *et al.*, *Science* (online).

1599 C. H. Townes, *Convergence*, p. 66.

1600 See, e.g., W. Isaacson, *Einstein*, p. 335.

1601 *Ibid.*, p. 388.

1602 *Ibid.*, p. 390.

1603 H. B. Eyring, Jr., *Faith*, p. 70.

1604 H. W. Nibley, *Facsimiles*, p. 49.

1605 H. W. Nibley, *Not to Worry*, p. 146.

See Taleb for many examples of how both experts and laymen have become “convinced that they understood what was going on” despite the fact that “[e]very single day brought occurrences that lay completely outside their forecast, [and that] they could not [even] figure out that they had not forecast them.”<sup>1606</sup> One implication of his observations is that a person should “make an attempt not to treat his knowledge as a treasure, or even a possession, or even a self-esteem enhancement device,”<sup>1607</sup> but rather should be more attentive to “what we do not know.”<sup>1608</sup> In the same spirit, “a private library is not an ego-boosting appendage but a research tool. Read books are far less valuable than unread ones. The library should contain as much of what you do not know as your financial means... allow you to put there.”<sup>1609</sup>

E-26. Regarding this point, Erich Paul writes:<sup>1610</sup>

The Mormon authorities B. H. Roberts, James E. Talmage, John A. Widtsoe, and Joseph F. Merrill, who were very positive about science otherwise, ultimately rejected science in any guise as the foundation for religion or moral science in general. Thus, although some Mormons came close to developing a natural theology, Roberts for example recognized that science by its very nature is epistemologically insecure and therefore metaphysically suspect... A more careful and less polemical discussion of Joseph Smith’s ideas, however, would have saved Roberts, Widtsoe, and other Mormons from making problematic and erroneous, but “faith promoting,” statements, such as that the ether of nineteenth-century physics is the physical embodiment of the Holy Ghost or that astronomy verifies the truth of the book of Abraham. In their defense, however, many non-Mormons—scientists and others—even to this day have made similar claims about the alleged truthfulness of science. Unwittingly, these individuals were laying the foundation for a full-fledged natural theology: the view that religion can be verified by association with the prevailing theories and findings of science... At the deepest, ontological level, science as philosophy is unable to reveal much at all. As the cosmologist Edward R. Harrison has expressed it: “The history of cosmology [and science generally] shows us that in every age devout people believe that they have at last discovered the true nature of the Universe, whereas in each case they have devised a world picture—merely a universe—that is like a mask fitted on the face of the still unknown Universe.”<sup>1611</sup>

E-27 Nibley characterizes scientific prejudice as follows:

Is an open mind, then, a negative thing—an empty mind? It is, unless it is a searching mind. An oyster has few prejudices—in the field of astronomy it has, we may safely say, absolutely none. Are we then to congratulate the oyster for its open-mindedness? A first-rate and very broad-minded scientist, J. B. S. Haldane, defines prejudice as “an opinion held without examining the evidence.” Prejudice does not consist in having made up one’s mind—in defending an opinion with fervor and determination, ...it consists in forming an opinion before all the evidence has been considered. This means that freedom from prejudice whether in the field of science or any other field requires a tremendous lot of work—one cannot be unprejudiced without constant and laborious study of evidence; the open mind must be a searching mind. The person who claims allegiance to science in his thinking or who is an advocate of the open mind has let himself in for endless toil and trouble.<sup>1612</sup>

E-28. This was exactly the perspective of LDS scientist Henry Eyring who was said to have “cared less about the explanation for every piece of his [Absolute Rate Theory] model than about using it to make new discoveries. He was confident that the unanswered questions would be solved in time, and he meanwhile wanted to apply the model to any subject it could usefully illuminate.”<sup>1613</sup>

E-29 As Peterson expresses it:<sup>1614</sup>

LDS Bible use combines an essentially traditional perspective with liberal (even radical) elements, some unique to Mormonism... Scripture was not untouchable. [Joseph] Smith subordinated it to

1606 N. N. Taleb, *Black Swan*, p. 10.

1607 *Ibid.*, p. 2.

1608 *Ibid.*, p. xxi.

1609 *Ibid.*, p. 1.

1610 E. R. Paul, *Science*, p. 230.

1611 See E. R. Harrison, *Cosmology*, p. 1; cf. W. E. Evenson, *Science*, pp. cxiii-cxiv.

1612 H. W. Nibley, *Open Mind*, pp. 128-129.

1613 H. J. Eyring, *Mormon Scientist*, p. 29.

1614 D. C. Peterson, *Review of Barlow*, p. 78.

direct experience with God, and was willing to modify biblical texts to make them accord with the revelations he had received. Indeed, he produced new scripture—thus rejecting the Protestant principle of the all-sufficiency of the Bible.

Belief in continuous revelation both heightened and lowered the status of the Bible among Mormons. On the one hand, having themselves witnessed and indeed participated in a recommenced biblical drama, they knew the Bible to be true. Through a rebirth of prophetic tradition, ancient and modern Saints became contemporaries... On the other hand, Mormon prophets and apostles insisted upon their own limitations (easily observable by the Saints themselves). Thus, by analogy, the awesome distance between biblical figures and modern believers was reduced, and the Bible became “familiar.”

- E-30** Thus, Elder Neal A. Maxwell’s comment: “Today we carry convenient quadruple combinations of the scriptures. But one day, since more scriptures are coming, we may need to pull little red wagons brim with books.”<sup>1615</sup> He added, “Of course, computers may replace wagons.”<sup>1616</sup>
- E-31** In his characteristically forthright manner, Brigham Young expressed similar thoughts: “... compared with the living oracles those books are nothing to me.”<sup>1617</sup> “I would not give the ashes of a rye straw for all those books... without the living oracles...”<sup>1618</sup> In contrast to this view, the doctrine of *sola scriptura* accepted by many Christians presumes a closed canon that precludes the possibility of any subsequent scriptural additions assuming the same authority of the Bible.<sup>1619</sup> In contrast to this view, Wright points out that: “The risen Jesus, at the end of Matthew’s Gospel, does not say, ‘All authority in heaven and on earth is given to the books you are all going to write,’ but [rather] ‘All authority in heaven and on earth is given to me.’”<sup>1620</sup> Elsewhere, he argues that “... in the Bible all authority lies with God himself” as wielded “through human agents anointed and equipped by the Holy Spirit.” He recalls “a well-known lecturer once insisting that ‘there can be no authority other than scripture,’ and thumping the tub so completely that I wanted to ask ‘but what about God?’”<sup>1621</sup>
- E-32** Mourning the passing of the unique revelatory period at the death of the “last prophet,” a student of Islam writes: “While Muhammad still lived and prophecy and revelation in Islam continued, an order of existence prevailed that was unattainable in subsequent times... No other age could attain its perfection, no ensuing accomplishment equal its glories... Bereft of the guidance of its charismatic prophet-founder and the ‘revealing,’ the ongoing revelation, which he brought, the *Ummah* [faith community] was now on its own.”<sup>1622</sup>
- Ayoub points out, however, that though revelation “reached its technical culmination in the prophet Muhammad through a long period of what we call progressive revelation, nonetheless it may be said that revelation continues, not in the form of *wahi* (revelation technically considered) but in the form of *ilham*, or inspiration which is open to the friends and worshipful servants of God. This mode of revelation will not end.”<sup>1623</sup>
- E-33** Note that “new” scripture being given under the influence of the Holy Ghost is often couched in terms identical to passages of previously revealed scripture.<sup>1624</sup> Explained Smith and Sjodahl: “When the Spirit of the Lord speaks through a human instrument, He acts independently, even when proclaiming truths formerly revealed. Strictly speaking, the Holy Spirit does not quote the Scriptures, but gives Scripture.”<sup>1625</sup> Elder Bruce R. McConkie once expressed a similar point:

1615 N. A. Maxwell, *Flood*, p. 18.

1616 N. A. Maxwell, *Quote*, p. 298. A range of questions associated with the idea of an open canon are considered by Elder Alexander B. Morrison in A. B. Morrison, *Canon*, pp. 6-10. See also W. D. Davies, *Reflections*, p. 64; T. L. Givens, *Hand*, p. 196. Robert L. Millet gives an accessible overview regarding the wider question of how one is to determine authoritative doctrine in the Church (R. L. Millet, *Doctrinal Parameters*). See also *Approaching Mormon Doctrine*; J. E. Faulconer, *Coffee*; N. B. Oman, *Authority*; N. B. Oman, *Jurisprudence*.

1617 Cited in P. L. Barlow, *Bible*, pp. 92-93.

1618 B. Young, *Journal*, 27 January 1860, p. 417; cf. P. L. Barlow, *Bible*, p. 93; B. Young, 7 October 1864, p. 339.

1619 See 2 Nephi 29:3.

1620 N. T. Wright, *Last Word*, p. xi. See Matthew 28:18. Cf. J. R. Holland, *Words*, p. 93; J. R. Holland, *Words (Broken)*, p. 188.

1621 N. T. Wright, *Authoritative*. See also P. L. Owen, *Anglo-Catholic*, pp. 57-60.

1622 W. A. Graham, *Divine*, pp. 9-10.

1623 M. M. Ayoub, *Redemption*, p. 158.

1624 E.g., JS-H 1:36-41.

1625 H. M. Smith, *et al.*, *Commentary*, p. 350.