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That I may be comforted together with you by the mutual faith both of you and me (Romans 1:12).

A Catholic Rediscovered God

Juliana Boerio-Goates

Juliana Boerio-Goates is a professor of chemistry at BYU. She is a native of Latrobe, Pennsylvania, and received her undergraduate degree in chemistry from Seton Hill College, a Catholic women’s college in Greensburg, Pennsylvania, and an M.S. and Ph.D. in physical chemistry from the University of Michigan. She has been a visiting scientist at the Argonne National Laboratory, MIT, and Oxford University and has been recognized for her contributions as a young scholar by an award from the principal professional organization in her discipline. At BYU she was named a Karl G. Maeser Professor of General Education for her contributions in the classroom. Dr. Boerio-Goates belongs to the St. Francis of Assisi Catholic Church in Orem, where she has been active in leadership positions, including coordinator of the first Christmas Eve Midnight Mass celebrated at the Provo LDS Tabernacle. She and her husband, Steven R. Goates, are the parents of two children.

Why would a Catholic want to teach at BYU?” That is the question I am most often asked when I tell my general education physical science students that I am not a member of the dominant religion on the Brigham Young University campus. “Because the experience makes me a better Catholic,” is my answer, which often is more of a surprise than the initial revelation of my religious affiliation. But it is an answer which reflects my own growth as a committed Catholic living in Utah Valley and working on the BYU campus, a growth which was unexpected when I decided to come to BYU, but one which has had a valued outcome.

I am a product of sixteen years of Catholic education, from first grade through college, and I have always been an active participant in the sacramental life of my church. Some of my earliest and fondest memories are of attending church with my family, and especially with my grandmother. As a young child, I remember falling asleep each evening to the recitation of the rosary. As I got older, Friday evening Benediction, Forty Hours Devotion, and the Easter Triduum were all events which formed my spiritual base. Then, in high school and college, my religion classes gave me a theological and intellectual framework from which to support, explain, and nurture the rich emotional and spiritual tapestry which the early participation in sacred rituals had produced. My formal education, conducted in parochial schools, also introduced me to the notion that a strong secular education could be provided within a religious setting in which artificial boundaries need not be erected between faith and reason.

However, all of these experiences were obtained in a safe environment in which a majority of my friends, neighbors, and associates shared my religious allegiance. I was never challenged nor called upon to explain why I believed a certain principle nor given an opportunity for reflection upon different theological viewpoints to explore the true levels of my faith and commitment to it. Then, as a graduate and postdoctoral student, the demands of my education provided excuses to reduce my level of formal religious participation.

During the summer following my junior year as an undergraduate, I met and fell in love with a young LDS man who was an undergraduate at BYU. For three years we continued to see each other, although for much of two years we were separated by long distances, while we decided whether two very strongly held but very different religious beliefs could be brought together in a successful marriage. While naively underestimating the difficulties, we decided to marry, and I began the journey which ultimately led me to BYU. Following graduate school and postdoctoral experiences, we began to search for employment. Knowing that it was going to be difficult to find two academic positions in the same department, we nevertheless applied to the chemistry department at BYU. Fortunately for us, the general area of my research (thermodynamics) was one in which BYU had had a longstanding strength, but my specialty (low-temperature heat capacities and thermodynamics of solids) was not represented in the department. My husband, a laser spectroscopist, was in an area into which the department wished to expand.

My preemployment interactions with members of the chemistry department, university administration, and Elder Paul H. Dunn, the General Authority who conducted my faculty interview, were all very positive. I was struck by the universal concern of the interviewers. There was more emphasis on whether I could be happy in the unique environment of BYU rather than if I would be objectionable or unsuitable. When offers of employment came to both of us, we were encouraged to accept by an LDS institute director who told us that he thought we each had a mission to fulfill there.

From my earliest days on campus, it was clear to me that religion was an important part of the BYU experience.

The theme of the university conference which opened my first academic semester at BYU was “Unto Whom Much Is Given, Much Is Expected.” For some time, I had had an inner conviction that I should make use of my God-given talents, and so I resonated to this theme and took it to be an affirmation of my decision to come. The themes of the next few university conferences also set out very clearly that being employed as a faculty member at BYU was more than just a job. (For this reason, I am somewhat surprised now to hear some talk as though BYU in those years—early to mid-eighties—was too secular an institution.)

In the course of the last fifteen years, I have rediscovered God—at BYU. This rediscovery has occurred on two levels: in a renewed and deepened commitment to an image of God, that is, to a particular set of theological principles and conceptions; and in a deeper involvement with the organized church which embodies that theology. I suppose that change on the first level does not presume a parallel change in the second, but in my case it did. There are several general themes which can be drawn from the myriad experiences which have led to my renewed commitment. These include my experience as a member of the religious minority, the encouragement to consider in a sophisticated way the relationship of faith and reason, and the opportunity to see good examples of their integration. Working with women and men of both deep faith and outstanding academic abilities, and discussing religious beliefs with them and with students, has transformed the experience from being a purely academic, intellectual to a life-changing one. Moreover, the opportunities provided to work in leadership roles at the parish level of my church have provided a motivation as well.

Being a member of a religious minority in a culture and society dominated by a majority religion has presented numerous opportunities for growth. I find that I am constantly examining religious ideas expressed by my LDS colleagues, students, and neighbors in the light of my own understanding and image of God. This process of conscious comparison means that I must continually examine what it is that I believe. Things which I took for granted throughout my youth and young adult life, I now consider carefully for their implications. For example, the liturgical ritual of the Mass and especially the Divine Presence in the Blessed Sacrament has become deeply important to me after attendance at Mormon sacrament meetings.

On the other hand, the Mormon expectation that all people assume church responsibilities was a major factor leading me to return to a greater participation in the various activities of my own church. In fifteen years, I have served as lector, eucharistic minister, faculty advisor to the Catholic Newman Club for students at BYU and the local community college, member and president of the Parish Council, and most recently, as director of liturgy for the parish. Each of these activities has caused me to grow in my faith. For example, my involvement with the liturgy has enabled me to learn more of the theology that motivates the various rituals of the Church’s liturgical year.

The constant testing of ideas associated with the minority experience might have been present were I teaching at one of the state institutions of higher education in Utah, but probably would not have been grounded at such a deep intellectual level. At BYU, I have taken advantage of resources like *The Pope Speaks*, a compilation of major papal addresses and writings, and a wide range of Catholic periodicals which are available in the BYU library because of the research interests of the faculty.

Perhaps one of the most focused opportunities for this growth came through my preparation to teach a general education physical science class required of many BYU students. I saw this class as an opportunity to synthesize the fundamental and unifying ideas of physics, chemistry, and geology, to put them into a historical and philosophical perspective, and to build a basis from which a faithful person could view science. Because of this latter objective, I became better grounded in several well-known historical examples of the tension which exists between science and religion, for example, Galileo and Darwin. I also renewed an earlier interest in Pierre Teilhard de Chardin, a French Jesuit paleontologist who sought to show that evolution was a divinely instituted force which leads nature to higher and higher states of being. My early introduction to his writings and his life gave me an example that one could unite a deep love for science and a strong religious faith. For example, Teilhard has written, “There is a communion with God, a communion with the earth, and a communion with God through the earth.”^[1] Teilhard had a deep reverence for nature and the world of matter and saw in the study of nature an opportunity to come to know its divine Creator. During a great portion of his scientific and theological career, Teilhard, like Galileo, was asked by Rome to cease publication of his writings on this perspective. However, the ban was lifted after his death, and his writings exhibited a strong influence in the 1960s and 1970s on many Catholic theologians.

In addition, because of this teaching assignment, I was fortunate to have the opportunity to sit in on classes taught by Jae Ballif, professor of physics and astronomy and former provost of BYU. I found him to be a master at incorporating religious considerations into a science class without sentimentalizing the religion or watering down the science. He transmitted his deep commitment to his LDS faith by introducing scriptural quotations when they were

pertinent to the subject matter and by occasional statements of his personal beliefs. For example, as an introduction to the discussion of reason, he began with a citation from the Doctrine and Covenants (D&C 50:10–11) and led students to see that reasoning is useful if you start from the right place and use correct principles.

During the first lecture of this physical science class each semester, I announce to the class that I am Catholic. However, I also reassure them of my commitment to present them with official LDS positions on potentially controversial topics. I joke with them that if they had wanted the Catholic perspective they would have gone to Notre Dame, and I tell them that my sources have impeccable LDS credentials. In addition to the citations from scripture borrowed from Professor Ballif, I include quotations from the famous LDS scientist Henry Eyring, including ones from his book *The Faith of a Scientist*. On the last day of class, however, as we review the ideas of Newton, Galileo, DNA synthesis, plate tectonics, and cosmology, I take the opportunity to talk of my own beliefs and faith. I introduce Teilhard and cite him as another modern example of a scientist who had profound faith. I read a few sections from the Catholic catechism on faith and reason and end by showing a *B.C.* cartoon in which the strip's characters observe the fireworks of a volcano, a shooting star, a rainbow, and other magnificent natural phenomena and then reflect upon the divine origins of the universe. I encourage students to develop a sense of wonder and curiosity for the natural world around them and to use this as a springboard for a greater appreciation of the divine Intellect whose work this is.

I have also been influenced by interactions with my research students. The nature of my research occasionally requires working late into the night overseeing data collection from a computer-automated set of instruments. When things are going well and the equipment requires minimal intervention, these evenings provide valuable chances to get to know my students and to share beliefs and questions. From these young men and women, I have come to a better understanding of how culture can shape one's expressions of faith. Many are returned missionaries who have served in South or Central America. During these late-night sessions, they have shared with me their perceptions of Catholicism gleaned from their work in Catholic countries. Their frank statements of their impressions have helped me to look at Catholicism from an outsider's point of view. I will never forget the relief one student expressed when I explained that certain folk-cultural aspects of South American Catholicism were not church dogma and were not practices in which I engaged. He had found it hard to reconcile my scholarly image with what he thought Catholics had to believe from his missionary experiences. However, he found the post-Vatican II faith, which I professed, to be compatible with the professional image he had of me. He, in turn, was surprised to learn of the perceptions held by many non-Mormons about the LDS Church that make it hard for them to understand how an intellectual could accept the religious tenets of his church.

For the three years I was associate dean of general education and honors, I had the good fortune to work with some of the brightest and most thoughtful students at the University through the honors program. Twice I was invited to present devotionals at the weekly honors "morning sides" held in the Maeser Building, and I attended devotionals given by other faculty, visitors, and general authorities. Those morning devotionals were reminiscent of my undergraduate years, during which I frequently attended daily Mass with some of my professors. The devotionals often were a source of great spiritual insights. For example, BYU associate academic vice president John Tanner's meditation on the prayers used to bless the sacrament in LDS services made me reflect on the parallels and divergences between the LDS sacrament and the Catholic concept of the Divine Presence in the Eucharist.

I have already alluded to the influence of Professor Jae Ballif in strengthening my conviction that faith, reason, and science were not mutually incompatible. I have found many others like Jae, women and men of deep yet intellectual faith, who are unashamed to speak of their beliefs and the importance of those beliefs in their lives. Those are scholars well grounded in their disciplines, and many have made professional sacrifices to accept positions at BYU. While faculty members at BYU are with few exceptions LDS, those colleagues bring expertise and insights from their disciplines to our religious discussions. From Donna Lee Bowen of the political science department and her knowledge of Islam and Muslims I have gained some perspective on a non-Christian tradition. John Tanner, through a chance reference to a poem by T. S. Eliot, introduced me to a piece of literature which has enriched my perspective on Holy Week. James Faulconer, then dean of general education and honors and a philosopher, shared with me a favorite article that has provided rich food for thought on the Catholic concept of Eucharist. With my husband, Steven, there is a continued discussion of the essential elements of our two faiths, a sharing of religious activities where possible, a gracious acceptance of the differences, and a generous freedom to worship as we each believe. Engagements in scholarly, yet faith-filled, discussions of religious topics with those and other faculty continue to deepen not only my faith but my appreciation and respect for the sincerity of theirs.

When I first told friends and scientific colleagues that I was going to take a job at BYU, there were many skeptics who doubted that I could forgo the cup of hot coffee which usually accompanied my forays into the air-conditioned calorimetry lab and others who predicted that I would be made miserable by the insistent pressure to

become Mormon, or that I would find BYU to be too provincial. I will admit that there are times when a freshly brewed cup of coffee would make the day go better, that I have been hurt by those who are unwilling to accept my deep commitment to Catholicism and feel the need to send the missionaries around one more time, and that there are a few narrow-minded students, faculty, and administrators at BYU. But, the richness and variety of my spiritual, personal, and professional experiences at BYU have provided times of great joy and happiness. Freeman Dyson suggests in his book *Infinite in All Directions* that the ideal environment for life is one which is comfortable, but not too comfortable. At BYU, I have found a place where my faith is challenged because of the majority religion but where I can be comfortable and find support so that my faith continues to grow and strengthen.

[1] “Cosmic Life,” in *Writings in Time of War* (London: Collins, 1968).