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Abstract
Much of what has been written about Jose Rizal focuses on his political thinking, with side references to his numerous accomplishments in the arts and letters, in science, technology, and medicine. In this essay, I choose to focus on Rizal the scientist, both in the sense of someone searching for knowledge as well as someone employing scientific methods to the study of society. I use Rizal's writings, including correspondence with family and friends and a former Jesuit mentor, Father Pablo Pastells; his "Letter to the Women of Malolos"; his essay "Indolence of the Filipinos"; and his novel *Noli Me Tangere* to highlight the often difficult struggles he encountered around issues of faith and reason. I propose here that the struggles of Rizal the scientist, in particular to reconcile faith and reason, must be considered to understand Rizal the visionary and hero.

Key terms *Jose Rizal, Enlightenment, science, rationalism, faith*

In 1890, Rizal gave Ferdinand Blumentritt two sculptures. "The Triumph of Death Over Life" was a dark and sinister representation of a man, or what seems to be a man in a hood. The head is a skull and the figure clutches a lifeless woman. The other sculpture, showing a woman holding a torch and standing on a skull, has been copied many times, including one that has taken on iconic status at the University of the Philippines' College of

* This paper was originally delivered as a lecture on August 12, 2011, as part of the "Rizal and the Disciplines" lecture series, in commemoration of the 150th birth anniversary of national hero Dr. Jose P. Rizal. The lecture series was hosted by the Loyola Schools, Ateneo de Manila University.

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Medicine. This statue is now often referred to as "The Triumph of Science Over Death," with an entire Wikipedia entry on the internet with that title. The Wikipedia entry reads in part: "The woman symbolizes the ignorance of humankind during the dark ages of history, while the torch she bears symbolizes the enlightenment science brings over the whole world. The woman is shown trampling at a skull, a symbol of death, to signify the victory the humankind achieved by conquering the bane of death through their scientific advancements."

But in a letter sent to Blumentritt explaining the two sculptures, Rizal refers to the statue of the woman simply as "Scientia."[1] Ocampo speculates that the transformed English title, "Triumph of Science over Death" involved a weak rendition of "Scientia" and that Rizal, who studied Latin at the Ateneo, was probably thinking of *scientia* as knowledge.[2] I concur with Ocampo here, noting that in other letters Rizal sent to Blumentritt, he uses the German "*Wissenschaft*" to mean science. Moreover, Blumentritt himself, in a letter to Rizal some three years after receiving the statue, refers to the "Triumph of Knowledge over Death."[3]

I start this essay with this clarification to introduce Rizal the scientist, in the sense of someone who was obsessed (I am not using the term figuratively) with the search for knowledge, as well as someone applying the methodological rigor prescribed by the emerging Western scientific tradition of the nineteenth century.

I will mainly use Rizal's correspondence with family and friends to describe his thinking as a scientist. I will include the correspondence between Rizal and his former mentor, Father Pablo Pastells, written during his exile in Dapitan, to show the intensity of his personal struggles around faith and reason. I will also refer to Rizal's "Letter to the Women of Malolos" and "The Indolence of the Filipino," as well as passages from his *Noli Me Tangere*, to show how his ideas unfolded. Through this description of Rizal's often turbulent philosophical odyssey, I hope to show that without Rizal the scientist, we would not have Rizal the visionary and the hero.

My article is an expansion of an oral presentation, part of the Ateneo de Manila's celebration of Rizal's birth sesquicentennial. At that symposium, which was organized mainly for science and medical students, reactors talked about how the required Rizal course in college had transformed Rizal into a distant figure, much like the lonely statues in town plazas. This perceived irrelevance of Rizal may have come about in part because of the emphasis

[1] *The Rizal-Blumentritt Correspondence* (Manila: National Historical Institute), 2:369.
[2] Ambeth R. Ocampo, *Meaning and History: The Rizal Lectures* (Manila: Anvil, 2011), 55.
[3] *Rizal-Blumentritt*, 2:452.

on the evolution of Rizal's political thinking, with endless debates on whether he was a reformer or a revolutionary, or whether he retracted his controversial views on the Catholic church or not. While Rizal's medical training is always given prominence in the teaching of these Rizal courses, there are few references to the way he developed himself as a scientist, much less the way his scientific thinking was to shape his politics.

I also present this essay as an alternative to the tendency, in his biographies, to describe Rizal's accomplishments as the result of an innate genius, sometimes even essentialized as in the label "pride of the Malay race," used as the title of Palma's (1949) biography of Rizal, and revived in the campaign "Buhay Rizal" by the Rizal Commercial Bank Corporation, with slogans like "Be Proud of the Malay Race."[4]

No doubt, there is much to be proud of in Rizal. One biographer, for example, listed thiry-seven fields where he upposedly excelled, from botany and conchology to zoology,[5] but these enumerations suggest a kind of "jack of all trades, master of none" picture of Rizal, when in reality, it was his ability to integrate his interest in, and knowledge of, so many different fields that is so impressive.

In this essay, I emphasize how Rizal was a product of his times, one marked by intense interrogation of traditions in the Philippines and in the world. My essay veers away from the notion that it was only during Rizal's stay in Europe that he advanced his thinking. It is a perspective reflected in the division of Austin Craig's biography of Rizal,[6] the first part entitled "Youth in Medieval Twilight," describing his life in Laguna and in Manila, while the second part, describing his stay in Europe from 1882 to 1887, is entitled "Journey into Light."

I propose that even in his youth, here in the Philippines, the foundations for Rizal the scientist were being laid both by the political climate of his times, as well as by his religious mentors. Because Rizal's writings from this period are limited, it is almost impossible to infer what his thinking was like, but in many of his letters written later, in Europe and in Dapitan, he does refer constantly to his youth and in particular to his training with the Jesuits. He maintained contact with his mentors throughout his life, and to the day of his execution. Examining these relationships with religious mentors based in the Philippines, as well as European thinkers and scientists, is crucial in

[4] Eric Carruncho, "Rizal Lives!," *Philippine Daily Inquirer*, December 3, 2011, http://lifestyle.inquirer.net/25497/rizal-lives (accessed March 25, 2012).

[5] Isidro E. Abeto, Rizal: *The Immortal Filipino* (Manila: National Bookstore, 1984).

[6] Austin Craig, *Lineage, Life and Labors of Rizal* (Manila: Philippine Education Company, 1913).

our understanding of Rizal's quest for knowledge as a struggle, marked by painful conflicts, as well as convergences, between faith and reason in his personal life.

Transforming that oral presentation into a written essay has not been easy, given the need to gather more materials to elaborate on crucial points around Rizal's development as a scientist. Even with the added materials, I will emphasize that much more can be done to revisit Rizal's work and to understand his development not just as a scientist, but also as a philosopher.

A clarificatory note on historiographic methods is in order. I used several compilations of Rizal's letters, essays, and books. This includes the five-volume *Epistolario Rizalino*, consisting of correspondence between Rizal and his family and friends, retrieved from the National Library, compiled under the direction of Teodoro M. Kalaw, and published between 1930 and 1938.[7] While questions have been raised among scholars about the authenticity of some of the documents included in *Epistolario Rizalino*, it still remains the most comprehensive compilation of Rizal's letters, including a presentation of original texts accompanied by Spanish translations for German and Tagalog texts.

I feel it is important, when discussing Rizal's writings, to quote from the original texts even if it is in nineteenth-century Tagalog—as I do in this essay for a letter from Rizal's mother to him, and from Rizal to the women of Malolos—because these texts allow us to compare the fidelity of various translations. Whenever possible, I have looked for alternative compilations, transcriptions, and translations to compare the texts. In the case of the letter to the women of Malolos, I decided to use an English translation published in 1932[8] because it came closer to the original text.

For practical reasons, I have not quoted the original German and Spanish texts used by Rizal in his correspondence with Ferdinand Blumentritt, except to note the importance of a particular translation of racial categories. I did want to mention here that in his correspondence with Blumentritt, he almost always uses German while Blumentritt's letters alternated between German and Spanish. It is clear that both Blumentritt and Rizal were "negotiating" collegiality in their correspondence, with Rizal, for example, almost showing off his facility with German even as he apologizes for lapses.

From 1961 to 1963, the Philippine government's National Heroes Commission published a new anthology of Rizal's writings, this time with English translations. These were reprinted in 1992 by the National Historical

[7] *Epistolario Rizalino*, comp. Teodoro M. Kalaw. (Manila: Bureau of Printing, 1930-1938).

[8] Jose Rizal, *Letter to the Young Women of Malolos: Tagalog, Spanish and English* (Manila: Bureau of Printing), 24-34.

Institute, organized around who he was writing to: family members, fellow reformists, and Ferdinand Blumentritt, an Austrian ethnologist. Rizal's exchanges with fellow reformists are full of often fiery polemics and rhetoric, and are often quoted, with varying interpretations, to argue about his political ideas. My focus will be on Rizal's correspondence with Blumentritt, which can be emotional, but is more often written almost like scientific journal articles, with deep analysis and reflection. These letters provide an important backdrop to Rizal's essays and books, showing how he was using ethnology, philology, and history to deal with questions of race, nationhood, and the Filipino.

For the Dapitan correspondence between Rizal and the Jesuit Pablo Pastells, I looked at compilations in *Epistolario Rizalino*, which turned out to be drafts, at the National Heroes Commission's (and National Historical Institute's) new compilation and Bonoan's authoritative work on that exchange,[9] which includes the most complete set of original texts, Bonoan's own translation, and incisive commentaries.

Situating Rizal

Anderson situates Rizal by giving his year of birth, 1861, as being "five years after Freud, four years after Conrad, one year after Chekhov; the same year as Tagore, three years after Max Weber, five before Sun Yat-sen, eight before Gandhi, and nine before Lenin."[10]

I propose a more local context, but which can still be given a global dimension. In 1861, the year Rizal was born, Pedro Pelaez, an *insulare* or Spaniard born in the Philippines, became *vicar capitular* for Manila. Even before assuming this powerful post, Pelaez who, like other *insulares* referred to themselves as "Filipino," had fought for reforms in the Philippine church, including more rights for the secular and largely Filipino clergy, and had been accused of being disloyal to Spain. Schumacher writes: "The demand is moderate—that Filipinos be recognized on their merits, even if they are not peninsular Spaniards. That such a basically moderate position could be met with the accusation of rebellion makes clear how unlikely Pelaez was to meet success in his aspirations for equality. He had, however, set a precedent of resistance and militancy which set the stage for further developments."[11]

[9] Raul Bonoan, *The Rizal-Pastells Correspondence* (Quezon City: Ateneo de Manila University Press, 1994).

[10] Benedict Anderson, *Spectre of Comparisons: Nationalism, Southeast Asia, and the World* (Quezon City: Ateneo de Manila University Press, 2004), 227.

[11] John Schumacher, *Revolutionary Clergy* (Quezon City: Ateneo de Manila University Press, 1981), 12.

It is not surprising that in a letter from Rizal, written in March 1889 to Mariano Ponce and the producers of the periodical *La Solidaridad*, Pelaez is mentioned as one of the Filipino writers who the reformists should be reading: "Try to mention in every issue some old or modern Filipino, citing his works . . . Quote Pilapil, Pelaez, Burgos, etc. Little by little build a reference library."[12]

The developments in the Philippines would not have been possible without the political changes that swept throughout the world in the eighteenth and nineteenth centuries. The ideas of the Enlightenment (the German *Auflkarung* and the French *philosophe*) emerged and developed from the late seventeenth into the eighteenth century, inspiring the French and American revolutions.

Politically, the ideas of liberty and equality galvanized the imagination of people throughout the world, especially the Spanish empire. Spain's Cadiz constitution, its first, was crafted by liberals in 1812, establishing a constitutional monarchy which recognized universal suffrage, freedom of the press, and representation in the *Cortes* (Parliament) from overseas provinces, including the Philippines.

The Cadiz constitution was abolished ten months after it was approved, and Spanish liberal governments were to rise and fall several times during the nineteenth century. The unrest was not confined to Spain. *Criollos*—Spaniards born and raised in the colonies—led revolts throughout the Spanish empire. The Mexican revolution broke out in 1810, and within two years, Spain lost Argentina, Bolivia, Chile, Colombia, Ecuador, El Salvador, Mexico, Paraguay, and Venezuela to nationalist insurrections . By the mid-nineteenth century, all that was left to Spain was Puerto Rico, Cuba, and the Philippines.

The Philippines was caught up in these storms, stirred not just by political reforms in Spain but also by the globalization of trade. The city of Manila was the first to be opened up to free trade in 1834, and within the next few decades, the rest of the Philippines opened up to the world's goods and ideas. In 1869, Queen Isabella II of Spain was deposed and a liberal government installed. A liberal governor-general, Carlo Maria de la Torre, was appointed for the Philippines. When he arrived in Manila on June 23, 1869, he was welcomed by local liberals, headed by a physician and *criollo*, Joaquin Pardo de Tavera.

I intentionally use racial terms like "*criollo*" and "*mestizo*" because the nineteenth century was intensely racial in western European countries and in their colonies. Spain and Portugal, in particular, had the *casta* system,

[12] *Rizal's Correspondence with Fellow Reformists* (Manila: National Historical Institute, 1992), 308.

eventually borrowed by British colonialists to produce the English word "caste." The *casta* system was particularly elaborate in Latin America, with a concern over "*limpieza de sangre*," the cleanliness or purity of blood.[13]

Although not as intensely as in Latin America, race marked boundaries among the people living in the Philippines throughout the Spanish period. To illustrate, I quote from Chu, who quotes from Spain's final population census of 1896 to 1898, the *Estadistica de Manila*: the classifications used in that census were *españoles peninsulares* (Spanish peninsulars), *mestizos de españoles* (Spanish mestizos), *mestizos de sangleyes* (Chinese mestizos) *estrangeros de raza blanca* (foreigners of the white race), *naturales* (natives), and *chinos* (Chinese).[14]

Racial categories, while claiming absolutism because of its imputed biological foundation, are actually quite imprecise. In the Philippines, "*mestizos*" in the nineteenth century was used more often to refer to Chinese *mestizos* , while "*criollo*" was used for Spaniards and Spanish *mestizos* born in the Philippines. "*Naturales*" was often interchanged with "*indio*." Also floating around were more colloquial terms like "*tornatras*" or people with mixed Chinese and Spanish ancestry.

As mentioned earlier, "Filipino" in Rizal's time was a term used by *criollos* to refer to themselves. The *españoles peninsulares*, Spaniards born in Spain, thought the *criollos* were inferior, corrupted by the tropical climate. Beneath that racial rhetoric, there were also fears, spurred by the Latin American insurrections, that these *criollos* were entertaining ideas of independence from Spain.

The Philippine situation was further complicated by the Chinese *mestizos*, descendants of Chinese migrants who had married local women. These Chinese *mestizos* formed the foundation of a prosperous *principalia*, merchants that benefited from the Philippines opening up to world trade. The children of the *principalia* were able to access higher education and liberal ideas, both here in the Philippines and in Europe, and, eventually, to appropriate the term "Filipino" to include *mestizos* and *indios*.[15]

Race and racial classifications permeated Rizal's life, his father having changed the family's registration with Spanish authorities from "*mestizo chino*" to "*indio*." Rizal, in turn, was to move away from the "*indio*" to

[13] Magali M. Carrera, *Imagining Identity in New Spain: Race, Lineage and the Colonial Body in Portraiture and Casta Paintings* (Austin: University of Texas Press, 2003).

[14] Richard Chu, *Chinese and Chinese Mestizos of Manila: Family, Identity, and Culture* (Pasig: Anvil, 2012), 68.

[15] See Edgar Wickberg, *The Chinese in Philippine Life, 1850-1898* (Quezon City: Ateneo de Manila University Press, 2000), and Chu, *Chinese and Chinese Mestizos* for extensive discussions of these Chinese *mestizos*.

an appropriated "Filipino." It should not be surprising that race was to become a central focus for Rizal's forays into the social sciences while he was in Europe, as he discovered anthropology, an emerging science which, in the nineteenth century, was fixated over races and racial differences, often used to justify European (and later American) imperialism and claims of a mandate to bring civilization to "inferior" races. Aguilar discusses this nineteenth-century European discourse around race, as well as the appropriation by Filipino reformists, like Rizal, of racial rhetoric as part of their nationalism.[16] I will return to Rizal's discussions of race in this essay.

To return to the description of Rizal's sociohistorical milieu, the liberal interlude in the Philippines was all too brief, but it was a period that greatly threatened the Spanish colonial authorities. In 1869, there was student unrest in the University of Santo Tomas, one where Father Jose Burgos was implicated together with his students, among whom was Paciano Rizal, Jose Rizal's eldest brother.

After the fall of the liberal government in Spain in 1871 and the replacement of De la Torre, unrest in the Philippines reached a head with the Cavite mutiny and the execution of Fathers Jose Burgos, Mariano Gomez, and Jacinto Zamora in 1872 for their alleged complicity in that mutiny. Rizal was eleven years old at the time of the Gomburza martyrdom, definitely old enough for the execution to make an impression. Many years later, Rizal was to dedicate his novel *El Filibusterismo* to the three priests. In a letter to Mariano Ponce dated April 18, 1889, Rizal speculates: "Without 1872, there would not be a Plaridel, nor a Jaena, nor a Sancianco, nor would there be such brave and generous communities in Europe. Were it not for 1872, Rizal would now be a Jesuit, and instead of writing the *Noli*, I would have written the contrary."[17]

Rizal was sent to Manila to study in 1872. Except for passing accounts about what he studied at the Ateneo and at the University of Santo Tomas, this decade in Rizal's life has not been given enough attention. Irving reminds us that there were three Asian cities considered, in the nineteenth century, to be global and cosmopolitan: Malacca, Batavia (Jakarta), and Manila. Irving writes that Manila was the most developed of the three, with its flourishing trade and commerce, universities, and even Asia's most active printing presses. He also points out that Manila represented "contrapuntal colonialism," a site not just of western colonialism but also of native resistance and subversion, often converging with the other countercurrents of unrest in the world.[18]

[16] Filomeno Aguilar, "Tracing Origins: Ilustrado Nationalism and the Racial Science of Migration Waves," *The Journal of Asian Studies* 64, no. 3 (2005).

[17] *Rizal's Correspondence with Fellow Reformists*, 92.

[18] John Irving, *Contrapuntal Colonialism* (Quezon City: Ateneo de Manila University Press, 2010).

One can imagine Rizal discovering books in his school libraries as well as in shops, and exploring other aspects of urban life in Manila. We catch a glimpse of the curious Rizal in an exchange of letters with Dr. A. Meyer in 1890. Meyer had written Rizal, asking what he knew about intoxicants in the Philippines. Rizal's reply, dated March 5, 1890, has this passage: "I myself, though in 1879, used hashish; I did it for experimental purposes and I obtained the substance from a drugstore."[19] Hashish was being used medicinally in Rizal's time. At the same time, hashish was not an ordinary drug to be used for trivial ailments, so one wonders what this 18-year old was doing with hashish, and why many years later, he could still recall the exact year where he tried this plant.

I use this incident from Rizal's youth to highlight Rizal the curious inquirer. But, this incident aside, his letters from Europe included many references to his days in Ateneo and his mentors. To give one example, in a letter to Blumentritt dated November 28, 1886, Rizal refers to childhood friends from the Ateneo, as well as several of his teachers: Fr. Heras, Fr. Pastells, Fr. Francisco Sanchez, Fr. Federico Vila, Fr. Torra. "Those were happy days," Rizal writes, and in the same paragraph referring to his mentors, includes an apology for a Latin grammatical lapse in his previous letter to Blumentritt, almost as if to apologize for not living up to his Ateneo Latin classes.[20]

There were, to be sure, other challenges to Rizal in his youth, including experiences of oppression, such as a physical assault by a Spanish *Guardia Civil* that he was to carry with him throughout his life. Interspersed with fonder memories of his youth, and his days at the Ateneo, Rizal's early life was an example of the encounters of contrapuntal colonialism of nineteenth-century Manila.

Rizal in Europe

Rizal left for Madrid in 1882, despite objections from his family. At the Universidad Central de Madrid, Rizal went for more advanced medical studies but ended up with a doctorate in philosophy and the letters. As I will explain shortly, it was not so much a case of Rizal abandoning medicine—he in fact continued to practice medicine—than of new interests in the social sciences and the arts, interests which would converge with medicine.

Bonoan describes this state university as a hotbed of Krausist views, referring to Spanish philosophers who had taken on and developed ideas of a German Enlightenment philosopher, Karl Christian Friedrich Krause

[19] *Miscellaneous Correspondence of Dr. Jose Rizal* (Manila: National Historical Institute, 1992), 136.
[20] *Rizal-Blumentritt*, 1:26.

(1781-1832). The Krausists rejected divine revelation, looking at humanity as moving into an age of maturity where natural religion, rather than Christianity, Islam, or Judaism, would prevail. The Krausists also emphasized education as a system for promoting love of nature, as well as tolerance. The Krausists' influence was strong in the arts, particularly for the novel, which was seen "as potent weapon for polemic and social criticism, circumventing repressive censorship policies."[21] A flowery speech delivered in 1884 in Spanish to honor the painters Juan Luna and Felix Hidalgo, who had won awards at the Madrid Exposition, reveals how Rizal's political philosophy was developing alongside his views about science:

> The patriarchal age is coming to an end in the Philippines . . . the Oriental chrysalis is breaking out of its sheath; brilliant colors and rosy streaks herald the dawn of a long day for those regions, and that race, plunged in lethargy during the night of its history, while the sun illuminated other continents, awakes anew, shaken by the electric convulsion produced by contact with Western peoples, and demands light, life, the civilization that was once its heritage from time, thus confirming the eternal laws of constant evolution, periodic change and progress.[22]

Note his references to "race," "evolution," "change," and "progress," with metaphors of light and darkness. The reference to "contact with Western peoples" celebrates the Enlightenment, and the metaphors of light and darkness help us to understand why Rizal and his compatriots in Europe came to be referred to as the *ilustrado*.

Rizal's speech found its way back to the Philippines and was published in a magazine, *Los Dos Mundos*. A few months after Rizal delivered his speech, his brother Paciano wrote him telling him their mother has been ill. She was upset and concerned about the speech, and feared for Rizal's safety.

In a letter dated December 11, 1884, Teodora Alonzo, Rizal's mother, writes to him about her concerns and begs him "Ang bilin co sayo ulit-ulit na icao huag maquialam sa manga bagay na macapagbibigay sa aquing puso nang alapaap. Bueno, icao na ang bahalang maaaua sa aquin."[23] (I advised you repeatedly not to meddle in things that bring grief to my heart. I leave it to you to take pity on me.)

Rizal's mother continues: "Ngayon, ang totoong hinihiling co sayo, anac co, una sa lahat, huag cang magcuculang sa manga catunculan nang tunay

[21] Bonoan, 224.
[22] Leon Ma. Guerrero, *The First Filipino* (Manila: National Heroes Commission, 1963), 120.
[23] Rafael Palma, *Rizal: Pride of the Malay Race* (New York: Prentice Hall, 1930), 130-31.

na cristiano, na ito minamatamis co pa q. sa icao ay dumunong na lubha, sapagcat ang carunungan, cong minsan siang nagaacay sa atin sa lalong capahamacan…."[24] (Now, what I truly want from you, my son, is first of all, not to fail in your duties as a real Christian, for this is sweeter to me than your acquiring great knowledge; sometimes knowledge is what leads us to ruin.)

Here we have a glimpse of Rizal the son, 23 years old, confronted by his mother's grief over what she feels is a dangerous drift away from Christianity. Rizal writes back early in 1885. I was only able to find an English version in Guerrero's biography so we do not know if he replied in Spanish or in Tagalog. The translated letter has Rizal explaining he had restrained himself from writing, but that he had to listen to his conscience. He then reassures his mother that he continues to believe "in the fundamental principles of our religion," but that "childhood beliefs have yielded to the convictions of youth which in time will take root in me . . . What I believe now, I believe by reasoning, because my conscience can accept only what is compatible with reason."[25]

His letter is long, almost a soliloquy, as he speculates:

> I would be recreant to my duty as a rational being if I were to prostitute my reason and admit what is absurd. I do not believe that God would punish me if I were to try to approach Him using reason and understanding, His own most precious gifts; . . . If someday I were to get a little of that divine spark called science, I would not hesitate to use it for God, and if I should err or go astray in my reasoning, God will not punish me.[26]

Here is the young Rizal speaking of science as a "divine spark" and of reasoning and understanding as "precious gifts." He is to use a similar metaphor in his exhortations to the young women of Malolos in 1889,[27] who had the audacity to ask for a "night school" from the Spanish Governor-General so they could get formal education. After an initial denial by the Governor-General, the women persisted until they were granted permission.

Rizal's letter to the women, written in London, expresses his elation ("ang tua ko'y labis") and expresses hopes that women like them will continue to stand their ground. The language again draws on metaphors of light and darkness to describe the quest for knowledge:

[24] Ibid.
[25] Guerrero, 108-109.
[26] Ibid.
[27] Palma, 262ff.

> Di hiling ñg Dios, punó ñg karunuñgan, na ang taong larawan niya'y paulol at pabulag; ang hiyas ñgisip, na ipinalamuti sa atin, paningniñgin at gamitin. Halimbawá baga ang isang amang nagbigay sa bawat isang anak ñg kanikanyang tanglaw sa paglakad sa dilim. Paniñgasin nila ang liwanag ñg ilaw, alagaang kusá at huag patain, dala ñg pag-asa sa ilaw ñg iba, kundí magtulongtulong magsangunian, sa paghanap ñg daan. Ulol na di hamak at masisisi ang madapá sa pagsunod sa ilaw ñg iba, at masasabi ng ama: "bakit kita binigyan ng sarili mong ilaw?" Ñguni't dí lubhang masisisi ang madapá sa sariling tanglaw, sapagka't marahil ang ilaw ay madilim, ó kayá ay totoong masamá ang daan.[28]
>
> God, the primal source of all wisdom, does not demand that man, created in his image and likeness, allow himself to be deceived and hoodwinked, but wants us to use and let shine the light of reason with which He has so mercifully endowed us. He may be compared to the father who gave each of his sons a torch to light their way in the darkness bidding them keep its light bright and take care of it, and not put it out and trust to the light of the others, but to help and advise each other to find the right path. They would be madman (sic) were they to follow the light of another, only to come to a fall, and the father could unbraid them and say to them: "Did I not give each of you his own torch," but he could not say so if the fall were due to the light of the torch of him who fell, as the light might have been dim and the road very bad.[29]

Rizal uses these metaphors of light as reason and knowledge in another passage in that letter:

> Alam na kapus kayong totoo ñg mga librong sukat pagaralan; talastas na walang isinisilid araw araw sa inyong pagiisip kundí ang sadyang pang bulag sa inyong bukal na liwanag; tantó ang lahat na ito, kayá pinagsisikapan naming makaabot sa inyo ang ilaw na sumisilang sa kapuá ninyo babayi; dito sa Europa kung hindí kayamutan itong

[28] *Epistolario Rizalino*, 224.
[29] Rizal, *Young Women of Malolos*, 17.

> ilang sabi, at pagdamutang basahin, marahil ay makapal man ang ulap na nakakubkob sa ating bayan, ay pipilitin ding mataos ñg masantin na sikat ñg araw, at sisikat kahit banaag lamang.[30]
>
> We know that you lack instructive books; we know that nothing is added to your intellect, day by day, save that which is intended to dim its natural brightness; all this we know, hence our desire to bring you the light that illuminates your equals here in Europe. If that which I tell you does not provoke your anger, and if you will pay a little attention to it then, however dense the mist may be that befogs our people, I will make the utmost efforts to have it dissipated by the bright rays of the sun, which will give light, though they be dimmed.[31]

As I noted earlier, it is important to look at different translations of Rizal's works. While I chose a 1932 English translation of his letter to the women of Malolos as a more faithful rendition, I did find the translation as taking too many liberties. "*Karunungan*," for example, is translated as "wisdom" rather than knowledge, which I consider significant, especially in relation to my proposal that Rizal was obsessed with the quest for knowledge. Other words that were loosely translated were: "*pabulag*" or blinded becoming "hoodwinked," "*ulap*" or clouds translated as "mist" and "fog," and "*banaag*," the light of early dawn, being rendered as "dimmed (light)." The original meaning of "*banaag*" is, unfortunately, lost in the word "dimmed." My reading of the original passage suggests Rizal saw incipient knowledge and reason—compared to the faint light of dawn—as important in itself because it heralds a new day.

Rizal's reference to the quest for knowledge as a divine mandate is to recur in other correspondence, including with his former Jesuit mentor, Pablo Pastells, where his choices are made in the difficult circumstances of exile in Dapitan.

Rizal's writings from Europe show how he shifted to anthropology, ethnology, philology, folklore, and history, as well as philosophy. His letters to Blumentritt showed he was reading voraciously as part of his research, often a quest for the Filipino. His output was prolific, from a Tagalog grammar book to his annotations of the seventeenth-century work, *Sucesos de los Islas Filipinas* by Antonio Morga.

[30] *Epistolario Rizalino*, 124.
[31] Rizal, *Young Women of Malolos*, 22.

Quibuyen has suggested Rizal was also influenced by the German philosopher and theologian Johann Gottfried Herder (1744-1803).[32] Rizal did indeed write Blumentritt in 1890 that he was able to buy the complete works of Herder—all 38 volumes—"for a song."[33] Quibuyen describes Herder as a "post-Enlightenment" philosopher,[34] perhaps because he parted ways with Kant, but Herder's main influence on Rizal seems to have been around his concepts of culture and language, and a sense of Volk (the people). Herder has been credited as having coined the term nationalismus or nationalism.[35] Zammito proposes that together with Kant, Herder was a pioneer in the development of what was to become anthropology, with Herder going as far as proposing that anthropology should supplant philosophy. Herder believed that language determined thought, and that the collection and preservation of folklore was vital in creating a national identity. He also wrote about how history and environment influenced the development of cultures, and about human rights, freedom, and dignity.[36]

We see Herder's "cultural nationalism"[37] in many of Rizal's writings, including his argument for a Tagalog orthography separate from the Spanish *abecede*, so that the writing system could come closer to "the spirit of the language."[38] Nery notes, too:

> To forge a unity of purpose, he [Rizal] felt it was, as always, necessary to set an example. And because the question of language was becoming more and more central to their attempt to form a nation, he began writing to his closest allies in Tagalog. One consequence of this turn remains under-appreciated by Filipinos, even today: Some of the most important letters in the Rizal canon were written in their own language.[39]

It is in his study of languages where we best see Rizal's scientific rigor, particularly in the way he responded to inquiries from European scholars

[32] Floro Quibuyen, *A Nation Aborted* (Quezon City: Ateneo de Manila University Press, 1999), 7-8.
[33] *Riza-Blumentritt*, 2:355.
[34] Quibuyen, 7-8.
[35] T.W. Blanning, *Culture of Power and the Power of Culture: Old Regime Europe 1660-1789* (Oxford: Oxford University Press, 2003), 259.
[36] John H. Zammito, *Kant, Herder, the Birth of Anthropology* (Chicago: Chicago University Press, 2002), 3.
[37] David Denby, "Herder: Culture, Anthropology and the Enlightenment," *History of the Human Sciences* 18, no. 1 (2005).
[38] *Jose Rizal Miscellaneous Writings* (Manila: National Historical Institute, 2011), 130-39.
[39] John Nery, *Revolutionary Spirit: Jose Rizal in Southeast Asia* (Quezon City: Ateneo de Manila University Press, 2011), 67.

about languages in the Philippines. One striking example comes with his probing of the word *Bathala* in Tagalog, in two letters to Blumentritt written in 1887[40] and in still another letter written in 1890.[41] In his first letter to Blumentritt Rizal notes that the word "*Bathala*" is never used by the Tagalog, despite claims by Spanish writers that this is a term for a "foremost God." Rizal speculates that "*Bathala*" might have been given a "false interpretation" by the Spaniards: "A friar translated it in his dictionary as 'God is above all.' Literally this expression means: Care is in God's hands; God is *May Kapal* (Creator) . . . At the most *bahala* could have been a deification, a personification of 'care,' which is not proven."[42]

Rizal's exposition on "*Bathala*" leads him to tackle "*bahala*" in a second letter to Blumentritt: "We might also have made of *Bathala* a God of destiny or care thus we say *ipabahala mo sa akin.* [Let me take care of it.] *Ako ang bahala! Ikaw ang bahala—Yo cuidao*! *Tu cuidao!* [I take care of it! You take care!]"[43] In 1890, he returns to "*Bathala*" in still another letter to Blumentritt:

> I believe that the phrase *Bathala May Kapal* that was adopted by the other historians after Chirino is nothing more than the phrase *Bahala ang May Kapal*, wrongly written . . . the fact that the phrase *Bathala May Kapal* is often encountered makes me presume that it may be only a copy. There cannot be found another source where the word *Bathala* is used but without the denomination *May Kapal*.[44]

I refer to Rizal's exposition on "*Bathala*" to show how he draws from published studies about the Philippines, including dictionaries, while referring as well to colloquial Tagalog. His observations on "*Bathala*" and "*bahala na*" are important but have been neglected in twentieth-century debates over whether "*bahala na*" is fatalism—that is, leaving things to *Bathala*—or is actually a way of assuming responsibility and care for someone, and of thoroughly exhausting options before leaving things to God.[45]

Rizal engaged the Europeans on their own turf, and was clearly comfortable doing this. Through Blumentritt he was able to meet other German scholars, including the physician, anthropologist, and social reformer Rudolph

[40] *Rizal-Blumentritt*, 1:57-58, 69-70.
[41] Ibid., 2:349-52.
[42] Ibid., 1:57-58.
[43] Ibid., 1:70.
[44] Ibid., 2:351.
[45] See Michael L. Tan, *Revisiting Usog, Pasma, Kulam* (Quezon City: University of the Philippines Press, 2008), 44-46.

Virchow. Virchow was also the founder of the Society for Anthropology, Ethnology, and Prehistory (Gesellschaft für Anthropologie, Ethnologie, und Urgeschichte), and personally invited Rizal to become a member after he delivered a paper on Tagalog folklore. Rizal regularly attended the meetings of this society, and describes to Blumentritt a particular lecture on Mecca and Muslim pilgrims. We see Rizal the sharp and discerning observer when he describes how, during that lecture, he noticed "Malay pilgrims" and how the next lecture was "somewhat boring."[46]

In a letter to Blumentritt Rizal describes a visit with Virchow, including the latter remarking, in jest: "I want to study you—ethnographically, of course." Rizal replied, "Yes, Herr Professor, for the love of science I shall submit to your analysis, and I promise to show you another specimen later, if you will allow me." The "other specimen" was Maximo Viola, another Filipino.[47]

Rizal grappled with the issue of race, as we see in this letter to Blumentritt: "The races are the Caucasian, Mongolian, Malayan and the black . . . We also give this name to a people of more than half a million souls that you call 'nations,' but we don't call 'nations' peoples that are not independent, e.g. the Tagalog race, the Visayan, etc. . . . Tribe is less than race; it is part of race."[48]

Rizal, in effect, softens the concept of race, more concerned with nations and nationhood. In a letter to Blumentritt written April 13, 1887, he writes: "We must all make sacrifices for political reasons . . . This is understood by my friends who publish our newspaper in Madrid. They are creole young men of Spanish descent, Chinese half-breeds, and Malayans, but we call ourselves only Filipinos."[49]

Race, Culture, and Nationhood

That same letter from Rizal to Blumentritt moves from race to the Jesuit legacy: "Almost all of us have been educated by the Jesuits, who certainly did not inculcate in us love of country, but they taught us the beautiful and the best!"[50] This ambivalence in Rizal's appreciation of a Jesuit education is found as well in his novel *Noli Me Tangere*, first published in 1887. More than an attempt to use literature as social commentary, Rizal brought in many of

[46] *Rizal-Blumentritt*, 1:53.
[47] Ibid., 1:39.
[48] Ibid., 1:23.
[49] Ibid., 1:72; The translation of this passage shows the problems around translations and racial categories. The facsimile of Rizal's letter, written in German, reads: "*diese Freunde sind alle Junglingen, creolen, mestizen und malaien, wir nennen uns nur Philippinen*." The translators went a step further to translate "*creolen*" into "young men of Spanish descent" and "*mestizen*" into "Chinese half-breeds."
[50] *Rizal-Blumentritt*, 1:72.

his personal struggles around issues of faith and reason. One particularly striking example comes in a conversation between Tasyo, an old man and folk philosopher, with Don Filipo, the town vice mayor:

> There are three ways of going with Progress: ahead of it, alongside it, and behind it. Those who go ahead guide Progress, the second group go along with Progress; and the third group are dragged forward by Progress. The Jesuits belong to this last group. They would be glad enough to guide it but they realize that Progress is now too strong for them and seeks its own roads; so they give in, they follow rather than be trampled underfoot . . . that is why the Jesuits, who are reactionaries in Europe, represent Progress from our viewpoint. The Philippines owes them the beginnings of the Natural Sciences, soul of the nineteenth century.[51]

Three years after the publication of *Noli*, Rizal takes up that massage again in a letter to Blumnetritt:

> My grand dispute with the Jesuits and their principal reproach against me is that I have placed them behind the cart of progress. They told me that the Jesuits marched at the head of progress, to which I replied that it could not be so for they cannot accept the liberal principle of progress, etc.—for example, freedom of the press, freedom of thought, freedom of religion. Father Faura said there are many learned scientists in the Society of Jesus. I agree, but with the remark that science alone is not progress itself but an accessory of it; it forms only the principle.[52]

Rizal uses the German "*Freiheit*," which has strong connotations of rights, an important connection made to science and progress. We see these themes returning in Rizal's "Indolence of the Filipino," this time linked to culture, race, and nationhood. In many ways, the essay comes close to a scientific journal article, presenting different explanations for Filipino "indolence." The essay appeared in five installments in the *ilustrados*' *La Solidaridad*, running from July 15 to September 15, 1890. I will use a translation from the Spanish to English by Charles Derbyshire,

[51] Jose P. Rizal, *Noli Me Tangere*, trans. Leon Ma. Guerrero (1887; Hong Kong: Longman, 1961), 376-77.

[52] *Rizal-Blumentritt*, 2:327.

published as a book by Philippine Education Company in 1913. The title of Rizal's work is itself instructive, in his appropriation of "Filipino" to refer to the *indio*. He also states, at the beginning of his essay, that it is necessary to study this indolence "without superciliousness or sensitiveness, without prejudice, without pessimism,"[53] and proceeds by acknowledging the existence of indolence: "We must confess that indolence does actually and positively exist there; only that, instead of holding it to be the *cause* of the backwardness and the trouble, we regard it as the *effect* of the trouble and the backwardness, by fostering the development of *a lamentable predisposition*."[54]

Rizal's medical background comes through in "Indolence," including the framework he uses for his analysis. In his introduction, he acknowledges the existence of indolence as a predisposition, then compares his essay to treating a patient with a "long chronic illness," with indolence as the "malady" and with all kinds of attributed causes: "The attending physician attributes the entire failure of his skill to the poor constitution of the patient, to the climate, to the surroundings, and so on. On the other hand, the patient attributes the aggravation of the evil to the system of treatment followed. Only the common crowd, the inquisitive populace, shakes its head and cannot reach a decision."[55]

Rizal then tackles the proposal that the tropical climate causes this indolence, first agreeing that climate might play a role: "A hot, climate requires of the individual quiet and rest, just as cold incites to labor and action. For this reason the Spaniard is more indolent than the Frenchman; the Frenchman more so than the German."[56]

It should not be surprising that Rizal started out with the climate. His clinical notebooks which he kept as a student in Madrid tell us he was still using a Galenic tradition with ideas of humors and temperaments and interactions with the climate. This was classical Greek medicine, preserved during the Islamic golden age of science and medicine, and transferred to the Spaniards and other Europeans. Bantug quotes Rizal as saying: "*El aire, el calor, el frio, el vapor de tierra y la indigestion, son las unicas causas patogenicas que se admiten en el pais.*"[57] (Winds, heat, cold, the earth's vapor and indigestion are the leading pathogenic causes in the country.)

But in relation to alleged Filipino indolence, though, Rizal is quick to demolish the idea of a climatic cause. "A man can live in any climate, if he

[53] Jose P. Rizal, *The Indolence of the Filipino*, trans. Charles Derbyshire (1890; Manila: Philippine Education Company, 1913), 10.

[54] Ibid.

[55] Ibid., 6.

[56] Ibid., 12-13.

[57] Jose Bantug, *Bosquejo Historico de la Medicina Hispano-Filipina* (Madrid: Ediciones Cultura Hispanica, 1952), 32.

will only adapt himself to its requirements and conditions."[58] He observes that European colonizers do have difficulties in the tropics, but this is because of "the abuse of liquors, the attempt to live according to the nature of his own country under another sky and another sun. We inhabitants of hot countries live well in northern Europe whenever we take the precautions the people there do. Europeans can also stand the torrid zone, if only they would get rid of their prejudices."[59]

Rizal then goes on to marshal his knowledge of the social sciences to propose that it was Spanish colonialism that created Filipino indolence. Citing the works of early Spanish chroniclers, he argues that pre-colonial Filipinos were hard-working and prosperous, engaged in agriculture, fisheries, and trade with neighboring countries. In one particular passage, Rizal summarizes the works of Chirino, Morga, and Colin to argue his case, all the way up to the attributes of "cleanliness and pleasant manners."[60]

Spanish colonialism, Rizal argues, destroyed all this as Spain forced the *indios* to cut off trading relations, displaced them from their lands, and conscripted them for forced labor. He blames the Spaniards for introducing gambling, pointing out that words used for the games, as well as for betting, are of Spanish origin. Rizal the historian becomes Rizal the ethnographer, as he describes contemporary Spanish colonialism. His description of bureaucratic red-tape and corruption and how it contributes to "indolence" remains relevant for the Philippines today:

> The great difficulty that every enterprise encountered with the administration contributed not a little to kill off all commercial and industrial movement. All the Filipinos, as well as all those who have tried to engage in business in the Philippines, know how many documents, what comings, how many stamped papers, how much patience is needed to secure from the government a permit for an enterprise. One must count upon the good will of this one, on the influence of that one, on a good bribe to another in order that the application be not pigeonholed, a present to the one further on so that he may pass it on to his chief.[61]

Rizal the scientist explores all kinds of possible explanations for so-called indolence, even making a link to the galleon trade:

[58] Rizal, "Indolence," 12.
[59] Ibid., 13.
[60] Ibid., 50.
[61] Ibid., 39.

> The trade with China, which was the whole occupation of the colonizers of the Philippines, was not only prejudicial to Spain but also to the life of her colonies; in fact, when the officials and private persons at Manila found an easy method of getting rich they neglected everything. They paid no attention either to cultivating the soil or to fostering industry.[62]

The friars are named and blamed, for their control of the most productive agricultural lands, an educational system that is "brutalizing, depressive and antihuman,"[63] and the propagation of a backward religious culture that relies on prayers as the solutions to problems. Again, Rizal uses language to argue a particular point: "Whether they believe in miracles to palliate their laziness or they are lazy because they believe in miracles, we cannot say; but the fact is the Filipinos were much less lazy before the word *miracle* was introduced into their language."[64]

Rizal concludes that indolence can be explained mainly by "defects of training and lack of national sentiment,"[65] and that "without education and liberty, that soil and that sun of mankind, no reform is possible."[66] He warns: "Since some day or other he [the Filipino] will become enlightened, whether the government wishes it or not, let his enlightenment be as a gift received and not as conquered plunder."[67]

Dapitan as a Watershed

In a letter to Blumentritt written March 31, 1890, Rizal talks about his dreams of returning to the Philippines, and of Blumentritt joining him: "I shall order a little house built on a hill. Then I shall devote myself to the sciences. I shall read and write history. I shall establish a school and if you can stand the climate, then you will be its director."[68]

Rizal did return to the Philippines, only to be exiled to Dapitan, which proved to be a watershed. Shortly after he arrived in Dapitan, he wrote Blumentritt with some nostalgia for Europe: "For the scientific life here is my former professor, the cultured Jesuit, Father Francisco P. Sanchez, whom you already know. Nevertheless, I am very far from the incessant and

[62] Ibid., 42.
[63] Ibid., 48.
[64] Ibid., 43.
[65] Ibid., 52.
[66] Ibid., 59.
[67] Ibid., 60.
[68] *Rizal-Blumentritt*, 2:343-44.

indefatigable scientific life of civilized Europe where everything is discussed, where everything is placed in doubt, and nothing accepted without previous examination."[69]

Rizal put many of his ideas to work, even as he continued to reflect on and develop his thoughts on reason and freedom. He practiced medicine and became an engineer, building a waterworks system. He collected specimens of flora and fauna, and ethnological artifacts, but he did this in part to barter with his European contacts for more books. Dapitan was the site for Rizal's Colegio Moderno, where he personally tutored 16 young Filipinos in the arts, humanities, languages, and natural sciences, using a curriculum reflecting his exposure to Krausism in Madrid. There was time for Swedish gymnastics, recreation, equitation (horseback riding), swimming, fencing, dancing, music, and, on Sundays, religious duties.

While in Dapitan, he wrote, in 1895, "The Treatment of the Bewitched" ("La Curacion de los Hechizados")[70] for a Health and Welfare Inspector, Benito Francia. In this essay, Rizal expressed contempt for these practices, but also speculates that "auto-suggestion" is involved, and that this auto-suggestion can help in healing: "Should we find ourselves before a case of auto-suggestion we would not hesitate to follow the principle on which the primitive treatment is based."

In Dapitan, too, Rizal continues to struggle, wanting to keep a faith that included an engagement of the world, as a scientist and a humanist. There was Father Francisco Sanchez, mentioned in his letter to Blumentritt. Sanchez came with surveyors' instruments. Then there was Brother Tildot, who helped Rizal to build the water system for Dapitan. The visits were certainly not intended for technical assistance alone. The Jesuits had apparently arranged for Rizal to be deported to Dapitan, which was a Jesuit parish. While in Dapitan, Rizal corresponded with the Jesuit Provincial, Pablo Pastells, from September 1892 to June 1893 on issues of faith. Rizal was generally polite, all the way up to his final letter when he suggests that they stop their correspondence, but Pastells was quite direct, even harsh in his language. Bonoan speculates that Pastells might have been Rizal's confessor when the latter was still a student at the Ateneo.[71] There is a letter from Rizal to Blumentritt, written in 1886, with this passage: "Fr. Pastells was my best friend; he was the most distinguished and the best traveled among the Jesuit missionaries. He was also very zealous."[72]

[69] Ibid., 2:461.
[70] Translation in *Jose Rizal Miscellaneous Writings*, 176-81.
[71] Bonoan, 9.
[72] *Rizal-Blumentritt*, 1:26.

We see Pastells the zealot in several letters exchanged with Rizal while the latter was in exile. It is important to follow the letters in the sequence they were written to highlight the issues being debated by Rizal and Pastells, and to show the linkages to Rizal's letters and essays written while he was still in Europe, particularly around knowledge, science, reason, faith, and religion.

Rizal wrote the first letter, dated September 1, 1892, to thank Pastells for a gift and to respond to some issues Pastells had raised about Rizal in a letter to Father Antonio Obach, the parish priest. Rizal focuses on a few lines from Pastells, describing Rizal as using "the prism of his own judgment and self-love." Rizal argues that a person needs different prisms for different purposes: "Let each one strive to keep his lamp and improve it; let him not envy or despise the lamp of another." As for self-love, Rizal says this "is the greatest good that God has given to man for his perfection and integrity."[73]

Pastells responded on October 12, 1892, advising Rizal to guard against "exaggerated self-judgement and extreme self-esteem."[74] He also said that the Protestants had taken possession of Rizal and shortly after the Freemasons.[75] Rizal responded on September 1, 1892, saying he had not been influenced by any Protestant, but was impressed by the way he had seen how a Catholic priest and a Protestant pastor had become close friends in Germany, adding a question: "But who with justificable reason can call himself the reflector of that Light in our little planet? All religions pretend to hold the truth."[76]

Pastells sent back an emotional letter dated December 8, 1892, calling for "profound hatred, implacable and ceaseless war against all false and erroneous ideas."[77] He attacked Descartes and his "false presupposition, *Cogito, ergo sum*" as responsible for giving rise to "materialism, idealism and pantheism in philosophy; liberalism in politics; deism, rationalism, unbelief and indifferentism in religion; romanticism and naturalism in literature and fine arts."[78]

Pastells turned political, declaring the right of Spain to occupy the Philippines as "a divine and natural right," and that "abuses committed in all branches of government cannot be used to destroy the fact or right of her domination."[79] Separatism, Pastells declares, "constitutes a most ugly mark of incalculable ingratitude."[80]

[73] Bonoan, 83-88, 121-25.
[74] Ibid., 126-35.
[75] Ibid.
[76] Ibid., 89-99, 136-46.
[77] Ibid., 147-58.
[78] Ibid.
[79] Ibid.
[80] Ibid.

Rizal remained calm, and his letter on January 9, 1893, has a passage reiterating his beliefs in a creator God: "when I behold the wonder of his works, the order that reigns over the universe, the magnificence and expansion of creation, and the goodness that shines in all."[81] Also in that letter Rizal writes, "And I come to the conclusion from my humble reasoning that the Creator desires man to perfect himself by growing in knowledge."[82]

Pastells was not placated, writing, on February 2, 1893, that "the shipwreck of your faith is indeed an accomplished fact" but that there is still a "life-raft of hope" in Rizal's soul, having been "nourished with the pure doctrine of the true religion . . . let us not be satisfied with studying God in his creatures and in our consciences. Let us listen with unswerving faith, through the infallible teaching of the Catholic Church, to the voice of God who spoke to man directly by means of revelation."[83]

Rizal's responded on April 5, 1893: "I do not believe Revelation impossible, rather I believe in it, but not in revelation or revelations which every religion claims to possess. Upon impartial examination and careful study, one cannot but discern in these revelations the human imprint and the marks of the times in which they were written."[84]

Rizal refers twice to "the human imprint" on religion (translated "fang" in other anthologies), which may have been his way of questioning Roman Catholic claims of infallibility, as well as asserting his conviction that religious institutions are shaped by humans. He recognized, too, the terrible consequences of absolutist interpretations of religious texts: "Instead of interpreting obscure passages or phrases that provoke hatred, wars, and dissensions, would it not have been preferable to interpret the facts of nature the better to shape our lives according to its inviolable laws and utilize its resources for our perfection?"[85] Pastells's fourth letter is dated April 28, 1893, a very long discussion of the points raised by Rizal, particularly in relation to revelation.[86] Pastells asserts that the Catholic Church as Christ's "legitimate successors . . . He has decided that through the Church his doctrines be taught and the fruits of his redemption be applied to humanity."[87]

In June 1893, Rizal wrote that he senses "impatience" in Pastells's letters, "caused perhaps by the shortness of my mind, which is rather slow in attuning itself to your way of thinking, or perhaps by the pity which my

[81] Ibid., 159-65.
[82] Ibid.
[83] Ibid., 166-81.
[84] Ibid., 182-88.
[85] Ibid., 188.
[86] Ibid., 189-214.
[87] Ibid., 214.

religious situation, viewed from your vantage point, arouses in you."[88] Very diplomatically, Rizal suggested an end to the correspondence: "Lest I make you waste your time, I rather tell you now: let us leave to God the things that are God's and to men the things that are men's. As Your Reverence says, the return to the faith is God's work."[89]

Bonoan's comprehensive assessment of the Rizal-Pastells correspondence, which included translations of previously missing passages, includes a theological critique. He notes Rizal's denial of supernatural revelation and the divinity of Christ, but even amid the "indubitable wreckage" (of the shipwreck of faith, a term first used by another Jesuit, Francisco Sanchez, to describe Rizal), Bonoan finds "elements authentically and refreshingly Catholic and Christian: the primacy of conscience, firm belief in God, boundless trust in divine providence, the profound experience of God as loving father."[90]

Bonoan notes Pastells was not the best apologist, and that he failed to understand how Jesuit alumni, Rizal included, were "struggling to lay the foundations of the emergent nation." "The fact is," Bonoan writes, "it was well nigh impossible in nineteenth-century Spain to be a liberal and to be regarded as a good Catholic."[91]

Any discussion about Rizal's life in Dapitan would be incomplete without referring to Josephine Bracken, with whom he lived and had a stillborn son. They were not married and here again, the issue of his faith comes in. Craig's biography of Rizal gives details on what happened. Apparently Rizal was ready to marry Bracken in church, but would not agree to this if a retraction of his beliefs was required. When the parish priest assured him this was not going to be a requirement, Rizal came up with a document that simply stated his beliefs. The marriage did not push through because of opposition from Bracken's father, who left Dapitan together with his daughter.[92]

Love prevailed and Bracken did return to Dapitan, but this second time around, a church marriage did not take place. Craig has a long explanation of what may have happened. Apparently, Rizal worried that Obach would be more demanding, this time with a retraction. Craig writes that Rizal and Bracken probably thought "it would be less sinful for the two to consider themselves civilly married than for Rizal to do violence to his conscience by making any kind of political retraction."[93]

[88] Ibid., 215-16.
[89] Ibid.
[90] Ibid., 75-76.
[91] Ibid., 78.
[92] Craig, 214-15.
[93] Ibid.

Unfortunately, the governor-general in the Philippines did not implement the Spanish royal decree that allowed civil weddings, so Rizal and Bracken ended up as a live-in couple.

Coates, another one of Rizal's biographer, wrote about how the friars used Rizal and Bracken's cohabitation:

> In sermons they (the friars) publicly denounced the couple, forbidding any Dapitan parent to send their children to the Talisay school. When this produced no effect, they visited the houses of all who had sons at Talisay, threatening them with excommunication if they did not obey. A few of the new pupils (about four) were withdrawn but the parents who had been there a length of time remained, their parents worried but determined. Dapitan had made up its mind about Rizal.[94]

Synthesis

A week before my talk at the Ateneo de Manila on Rizal the scientist, I was able to visit the Rizal shrine in Talisay, Dapitan. Walking through the area, still filled with lush vegetation and a panoramic view of the sea, I thought of one of Rizal's letters to Pastells where he reiterates his belief in a creator God, followed by a description of being awed by nature: "The thought of him humbles me and sends my mind reeling, and whenever my reason rises to reach this Being who created planets, suns, worlds and galaxies without number, it falls back stunned, puzzled, and crushed."[95]

I wondered if Rizal might have read Charles Darwin's *Origin of the Species*, particularly the ending of the book:

> It is interesting to contemplate an entangled bank, clothed with many plants of many kinds, with birds singing on the bushes, with various insects flitting about, and with worms crawling through the damp earth, and to reflect that these elaborately constructed forms, so different from each other, and dependent on each other in so complex a manner, have all been produced by laws acting around us . . . There is grandeur in this view of life, with its several powers, having been originally breathed into a few forms

[94] Austin Coates, *Rizal: Philippine Nationalist and Martyr* (Oxford: Oxford University Press, 1968), 273.

[95] Bonoan, 101, 160.

> or into one; and that, whilst this planet has gone cycling on according to the fixed law of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been, and are being, evolved.[96]

That passage comes from the first edition of *Origin of Species*, published in 1859. In the second edition, published only a few weeks after the first, Darwin, who seems to be anticipating stormy debates from the religious, adds three words into the closing paragraph: "There is grandeur in this view of life, with its several powers, having been originally breathed **by the Creator** into a few forms or into one."[97]

A biography of Darwin by Gopnik notes that while Darwin's ideas on natural selection had well been formed as a young man, it was not until in Darwin's mid-life that the *Origin of Species* was published. Gopnik suggests Darwin postponed publication in deference to his intensely religious wife, who feared the loss of her husband's soul for espousing his heretical ideas. In the end though, it was the death of his favorite daughter, ten-year old Anne, that made him deal with his questions on God and on theodicy, and that may have made him finally decide to bring out his book. But the change in the wording of the closing paragraphs to his book, adding a reference to a creator, reminds us, of the kind of conflicts Darwin had to face, including possibly "performing" through his texts.[98]

One wonders about Rizal's own conflicts. The live-in arrangement of Rizal and Josephine Bracken is more than a footnote in history. In many ways, this controversial decision captures Rizal's struggles with his conscience—a term, which appears constantly in his novel *Noli Me Tangere*. Josephine Bracken was Catholic, too, so the decision not to marry might have been a difficult one. Rizal's personal circumstances were far more difficult than Darwin's, involving persecution from a powerful clergy, and colonial rulers. Rizal's writings present a picture of courage, an insistence on upholding reason, yet constantly referring back to matters of the heart and conscience. In a letter to Blumentritt dated May 9, 1895, Rizal writes about the death of a good friend, Anacleto del Rosario: "He was a Catholic, a blind and fervent believer, and he discussed nothing, while I discussed everything and doubted."[99]

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[96] Charles Darwin, *On the Origin of Species by Means of Natural Selection* (London: John Murray, 1859), 490.

[97] Charles Darwin, *On the Origin of Species by Means of Natural Selection*, 2nd ed. (London: John Murray, 1860), 490. Emphasis added.

[98] Adam Gopnik, *Angels and Ages: A Short Book about Darwin, Lincoln, and Modern Life* (New York: Knopf, 2009), 110-11, 145-54.

[99] *Rizal-Blumentritt*, 2:507.

Rizal touched many people, including those who disagreed with him. For all the fiery correspondence Pastells had with Rizal, the Jesuit kept all of Rizal's original letters as well as copies of his own, a complete version of which comes to us through Bonoan's book, together with translations and analysis.

Rizal's struggle for knowledge resonates today for Filipinos, and in particular, Filipino scientists, but it seems that he is appreciated more by foreign scholars than our local ones. It was Rizal's "Indolence of the Filipino" that inspired Syed Hussein Alatas to write *The Myth of the Lazy Native*,[100] an expanded analysis of colonial discourse about the "lazy native" in the Philippines, Malaysia, and Indonesia. Alatas's son, also a sociologist, continued to cite Rizal as a pioneer in questioning colonial hegemony, and proposing alternatives to Eurocentrism.[101] Rizal did indeed engage, and even challenge, European studies of the *indio*, but, even more courageously, he grappled with his faith and had the audacity to "talk back," even if, with the greatest respect, to his mentors.

I often hear scientists saying we should leave morality and theology to men of the cloth, and that they, in turn, should leave science to the scientists. I have to disagree here. Engagement with the world means, too, engagements between science and faith. In my lectures in medical schools, I frequently point out that medicine is too important to leave to physicians. I extend that now to say science is too important to leave to scientists, and that matters of faith and morality are too important to leave to the clergy.

In Rizal's time, the Philippines was a last outpost for the most conservative and authoritarian of Spaniards, including a frailocracy that opposed reason and freedom in the name of faith. One wonders if today in the twenty-first century, the Philippines remain a last outpost for pre-Enlightenment ideas. "Liberal" continues to have negative connotations, politically and morally, and faith is equated with blind obedience and dogmatism. Divine mandates, immutable "natural law," and threats of excommunication continue to be invoked in opposition to science and medicine.

How might the Filipino scientist respond? Rizal, and Rizal's time, offer many insights and challenges.

[100] Syed Hussein Alatas, *The Myth of the Lazy Native: A Study of the Image of the Malays, Filipinos, and Javanese from the Sixteenth to the Twentieth Century and Its Functions in the Making of Colonial Capitalism* (London: Frank Cass, 1977).

[101] Syed Farid Alatas, *Alternative Discourse in Asian Social Science: Responses to Eurocentrism* (New Delhi: Sage Publications, 2006).

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