

The Historiography of Science and Religion in Europe

with Jaume Navarro and Kostas Tampakis, “Science and Religion in Nineteenth-Century Europe: Non-Anglo-American Perspectives”; M. Alper Yalçinkaya, “‘Science,’ ‘Religion,’ and ‘Science-and-Religion’ in the Late Ottoman Empire”; Kostas Tampakis, “High Science and Natural Science: Greek Theologians and the Science and Religion Interactions (1832–1910)”; Agustín Ceba Herrero and Joan March Noguera, “Serving God, Fatherland, and Language: Alcover, Catalan, and Science”; Jaume Navarro, “Draper in Spain: The Conflicting Circulation of the Conflict Thesis”; and Neil Tarrant, “Science, Religion, and Italy’s Seventeenth-Century Decline: From Francesco de Sanctis to Benedetto Croce.”

SCIENCE, RELIGION, AND ITALY’S SEVENTEENTH-CENTURY DECLINE: FROM FRANCESCO DE SANCTIS TO BENEDETTO CROCE

by Neil Tarrant 

Abstract. Historians have often argued that from the mid-sixteenth century onward Italian science began to decline. This development is often attributed to the actions of the so-called Counter-Reformation Church, which had grown increasingly intolerant of novel ideas. In this article, I argue that this interpretation of the history of science is derived from an Italian liberal historiographical tradition, which linked the history of Italian philosophy to the development of the modern Italian state. I suggest that although historians of science have appropriated parts of this distinctive narrative to underpin their account of Italy’s seventeenth-century scientific decline, they have not always fully appreciated its complexity. In this article, I consider the work of two scholars, Francesco de Sanctis and Benedetto Croce. Both explicitly suggested that although the actions of the Church caused Italy to enter into a period of decline, they in fact argued that science represented one of the few areas in which Italian intellectual life actually continued to thrive.

Keywords: censorship; Benedetto Croce; Francesco de Sanctis; historiography; Italy; Roman inquisition

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In January 2008, Pope Benedict XVI cancelled a proposed visit to La Sapienza, Rome's oldest university. His decision was prompted by protests raised by some members of the university's staff. Around 60 academics had signed a letter that condemned the visit as "incongruous" on the ground that they believed that Benedict was opposed to science. They demanded that the university withdraw its invitation to the Pope. Their objections were rooted in the fact that in 1990, when still a cardinal, Benedict had given a speech in which he drew on the ideas of the Austrian philosopher of science Paul Feyerabend (1924–1994) to argue that the Church's decision to prosecute Galileo in the early 1630s had been "reasonable and fair." A number of the university's students shared their lecturers' concerns. In support of the academics' position, they declared an "anticlerical week." (Fisher 2008; Hooper 2008).

As part of the anticlerical week events, the students arranged a public demonstration. A sign promoting it began: "Fra Giordano was burnt, Galileo has abjured . . . we will resist against the papacy," before adding, "To do science is not a crime!" Given the context, the sign's reference to Galileo Galilei (1564–1642) was, perhaps, unsurprising, but it is notable that the students chose also to invoke the memory of Fra Giordano—that is, Giordano Bruno (1548–1600)—whom the Church had burnt for heresy. The students' sign demonstrates that, like Galileo's trial, they considered Bruno's brutal death to be a potent and relatable symbol of the Catholic Church's hostility to science. These symbols expressed not only concerns about this particular pope's attitude toward science, but about those of the papacy in general, and, by extension, those of the Catholic Church. They also have a deeper resonance in Italian culture. The sign concluded by extolling freely produced, secular knowledge, and advocating sexual liberty and LGBT rights. For these protesters, Galileo's trial and Bruno's immolation could also represent the Church's wider suppression of individual liberty, whether that took the form of the right to think, live, or love freely.

By invoking these symbols, the students were tapping into a long and rich tradition of using the historical events of the sixteenth century and seventeenth century in political discourse about the Italian nation and its relationship to the Church and papacy. For over 150 years, Italian scholars have used Bruno's death and Galileo's conflict with the Church to dramatize the moment in the late sixteenth century and early seventeenth century when, they suggested, the Church began to assert a rigid and totalizing control over every aspect of Italian culture, which in turn triggered a precipitous cultural, social, and political decline. As I have argued elsewhere, this narrative originated in the writings of a series of Italian historians and philosophers active from the mid-nineteenth to the mid-twentieth centuries. I have also suggested that although diverse—at times contradictory—and serving differing political agendas, the work of scholars

such as Bertrando Spaventa (1817–1883), Silvio Spaventa (1822–1893), Giovanni Gentile (1875–1944), Delio Cantimori (1904–1966), and Luigi Firpo (1915–1989) constituted part of an Italian liberal historiographical tradition (Tarrant 2018, 362–63). Although they were not usually concerned directly with science, the work of historians such as Firpo—who analyzed the Church’s impact on philosophy—has been co-opted into Anglophone history of science and used to make the narrower case that, after a promising start, Italy’s scientific development was cut short by the actions of the Catholic Church (Tarrant 2014, 4–9).

In this article, I explore further the idea of Italy’s seventeenth-century decline and its impact on science, analyzing the writings of two further thinkers who formed part of the Italian liberal historiographical tradition: Francesco de Sanctis (1817–1883) and Benedetto Croce (1866–1952). In common with the other scholars who constituted this tradition, they argued that, during the Renaissance, Italians created the ideas that would ultimately inform the modern world, but for nearly two centuries they were unable to realize their latent potential. In the late sixteenth and seventeenth centuries, the Church suppressed intellectual culture, precipitating an age of decline, which had the effect of delaying the advent of Italy’s modernity. It is at this point that important differences emerge in the liberal narratives. Bertrando Spaventa, for example, argued that Italy’s seventeenth-century decline severed any direct links between the thought of the Renaissance and that of his own age. He nevertheless maintained that by studying the writings of modern German philosophers, such as Georg W. F. Hegel (1770–1831), he was engaging with a tradition of thought that had its origins in Renaissance Italy. By studying and using these ideas, he argued, Italians could begin to create a modern, unified nation (Grilli 1941, 358–69).

In this article, I argue that de Sanctis and Croce defended a subtly different interpretation of Italian history. Like Spaventa, they maintained that from the late sixteenth century Italy had entered a period of decline, with devastating consequences for the cultural, social, and political development of its people. Yet they also argued that even amidst the desolation of *seicento* Italy, the spirit of the Renaissance was preserved in a few select fields, including the natural sciences. Indeed, they maintained that science continued to provide a continuous link between the thought of the Renaissance and that of the Risorgimento: its continued practice directly rooted Italy’s modernity in the nation’s illustrious past. Reconstructing the role that the history of science played in de Sanctis and Croce’s accounts of the development of the modern Italian nation, I will draw attention to the various examples of continued scientific activity that they provided, such as the importance of academies, experimental science, and the work of the Jesuits. I also suggest that by developing these arguments, de Sanctis and Croce anticipated many of the historiographical insights of

the later twentieth and early twenty-first century that inform our current understanding of the history of science in early modern Italy.

THE ITALIAN LIBERAL TRADITION AND ANGLOPHONE HISTORY OF SCIENCE

In the 1840s, the period directly preceding the unification of Italy, a group of scholars in Naples began to study the writings of modern German philosophers, including those of Hegel. This circle has come to be known as the “Neapolitan Hegelians,” and its members included the brothers Silvio and Bertrando Spaventa (Ricci 1987). These scholars’ intellectual interests were closely connected to their political aspirations: they desired the construction of a unified state, and believed that intellectual regeneration was a means to achieve this end. To realize their ambitions, they considered it necessary to acquire an improved understanding of the role played by philosophy in the nation’s development. To appreciate their arguments, it may be helpful to offer a brief sketch of some aspects of Hegel’s philosophy of history.

In his *Lectures on the Philosophy of History*, Hegel offered a world historical account of the development of modern liberal societies, in which individual citizens chose to submit to a constitutional system where individual rights were guaranteed by law. It was, he maintained, the historical destiny of the Germanic peoples to create this system of government. Hegel traced its development through the thought of the German peoples during successive stages of their history. He particularly emphasized the importance of the sixteenth-century Lutheran Reformation. According to Hegel, Martin Luther (1483–1546) initially held only limited aims for his protest, but they soon expanded to become an assault on the established authority of the Church. Encouraged by his ideas, individuals came to rely on their independent reading of the Bible as the guide for the direction of their conscience, setting the Germans on the path to Enlightenment. (Hegel [1837] 2011, 311–78). Hegel continued by briefly explaining why the peoples of the Romanesque nations—Italy, France, and Spain—did not undergo a similar Reformation. “External force did much to repress them,” he noted, but he maintained that such forces were insufficient to thwart the desires of the spirit of a nation. For Hegel, the real reason why the Romanesque peoples did not undergo a Reformation was because they had a peculiarity in their national character “which hindered the attainment of spiritual freedom”; specifically, they lacked “the pure inwardness” characteristic of the German nation (Hegel [1837] 2011, 379).

From the 1840s onward, some of the Neapolitan Hegelians began to produce histories of the Italian nation that mapped its political and social development onto its intellectual history. Following Hegel, they regarded philosophy as the highest expression of a people’s thought, and a reflection

of their national identity (Grilli 1941, 357). Silvio Spaventa, for example, maintained that during the Middle Ages Italy had been the center of civilization. This changed during the sixteenth century, when, following the restriction of intellectual liberty, the nation entered a period of decline. Stanislao Gatti (1820–1870) echoed this story in a work of 1851. Contradicting Hegel’s assertions about the effects of the application of external force on the course of a nation’s development, he suggested that Italian liberty was suppressed by such actions as the burning of Bruno, and the imprisonment of Tommaso Campanella (1568–1639) and Galileo. Gatti maintained that, although deprived of liberty in Italy, human spirit had continued to develop in Germany producing the modern philosophy that he and his contemporaries now studied. By reading these works, the Neapolitan Hegelians sought to make sense of the condition of contemporary Italy, and to construct a program for future action. The restoration of intellectual liberty and the establishment of a viable philosophical culture could restore Italy’s fortunes once more (Grilli 1941, 353–58; Tarrant 2018, 364–65).

In the years following the unification of Italy, former members of this Neapolitan circle continued to refine their accounts of their nation’s history. In the 1860s, Bertrando Spaventa offered an account of Italy’s intellectual history, which explained why Italy had languished while the states of Northern Europe had been able to form themselves into modern nation states. Again, the innovations of modern German philosophy inspired his analysis. The adoption of German thought nevertheless remained contentious within nineteenth-century Italy. Spaventa therefore constructed his history to serve two ends: first, to justify his use of what were, to his critics at least, foreign traditions of thought; and second, to develop a compelling account of Italy’s intellectual history as a means to explain its stalled social and political development (Grilli 1941, 362; Tarrant 2018, 364–67).

Although Spaventa drew deeply on Hegel’s ideas, his account radically altered significant elements of the latter’s narrative of world history. Notably, Spaventa maintained that Renaissance Italy, rather than Reformation-era Germany, was the font of modernity. He argued that during the sixteenth century Italy had produced a “phalanx of heroes of thought”—which comprised Bruno, Campanella, Pietro Pomponazzi (1462–1525), and Bernardino Telesio (1509–1588)—whose work anticipated subsequent European intellectual developments between the ages of René Descartes (1596–1650) and Immanuel Kant (1724–1804). The Church’s actions brought Italy’s precocious intellectual, social, and political development to an untimely end. Hegel’s assertion to the contrary notwithstanding, Spaventa maintained that external forces did indeed attenuate the development of Italian thought. Events such as the burning of Bruno and the trial of Galileo prevented Italian intellectuals from developing and discussing new ideas. Since Italians no longer enjoyed the liberty to think

freely, their homeland entered into a period of intellectual, cultural, and political decline, which persisted until the nineteenth century (Grilli 1941, 360; Tarrant 2014, 4–7; Tarrant 2018, 364–67).

For Spaventa, the situation within Italy was bleak. The nation's finest minds were either suppressed or forced to seek exile in Northern Europe. The Church's actions had an unintended effect, however. By creating a diaspora of radical Italian thinkers, the Church encouraged the diffusion into Northern Europe of not only the ideas of Renaissance Italy, but also the secularizing habits of thought that had produced them. In short, the ideas of the Renaissance inspired those of the Enlightenment. The leading figures of the Aufklärung, the likes of Immanuel Kant, and the philosophers who followed in its wake, including Hegel, were working within a tradition of thought that had originated in Italy. This meant that Spaventa could maintain, contrary to the complaints of his contemporary critics, that to study the thought of Kant or Hegel was to re-engage with a quintessentially Italian style of thought. More importantly, by studying these works Italians could resume their connection to the Renaissance, and in so doing bring about the intellectual development necessary for them to progress toward modernity and nationhood (Grilli 1941, 362).

In the late nineteenth and early twentieth centuries, a number of scholars refined and elaborated the declinist narrative that underlay Spaventa's account of history. In the 1930s and 1940s, highly influential historians such as Delio Cantimori and Luigi Firpo reiterated essential features of his thesis. Above all, they stressed that the Italian Renaissance had indeed pointed the way toward modernity, but from the mid-sixteenth century the Church began to create an environment in which free thought was no longer possible. Cantimori's most celebrated work, *Eretici italiani del cinquecento*, traced the diaspora of Italian radical thinkers forced to seek exile in Northern Europe and its intellectual consequences (Cantimori [1939] 2002; Tarrant 2018, 371–75). Firpo, meanwhile, reconstructed the situation in Italy, offering a series of studies that described the trials and condemnations of figures including Bruno, Telesio, Francesco Patrizi (1529–1597), and Galileo (Firpo 1950a, 1950b, 1951). For Firpo, these events were an unintended consequence of the Counter-Reformation. He suggested that the Catholic Church created the Inquisition and the Index of Forbidden Books with the specific and limited purpose of combatting the Protestant threat. By c.1575, these institutions had successfully completed their task, but, rather than disbanding, they extended their vigilance to all areas of human existence, including those beyond their immediate purview such as social mores, art, literature, and philosophy. The Church's unprecedented, and indeed unwarranted, actions had a calamitous effect: suppressing free philosophical expression for generations to come (Firpo 1951, 152–53; Tarrant 2014, 4–9).

Scholars such as Spaventa and Firpo established an important narrative: that in order to uproot the Protestant heresy, the Counter-Reformation Church established a repressive censorial regime embodied in the Inquisition and Index. In the later sixteenth century, this system was unexpectedly, and unjustifiably, applied to non-religious and non-theological matters, thus striking a fatal blow to Italy's precocious intellectual culture. Although neither Spaventa nor Firpo were specifically concerned with writing a history of science, subsequently key elements of their story have been incorporated into Anglophone histories of science. Let us consider two examples drawn from an influential set of essays, *God and Nature*, edited by David C. Lindberg and Ronald L. Numbers (1986). In the introduction, the editors explained that they had designed their volume to make available to a wider readership scholarship that challenged dominant Anglo-American narratives about science and religion. Specifically, they sought to highlight studies that moderated and nuanced the conflict thesis first developed in the late nineteenth century by John William Draper (1811–1882) and Andrew Dickson White (1832–1918).

Two of the essays in Lindberg and Numbers's volume specifically discussed the relationship between science and the early modern Catholic Church. In the first, a survey of science and early modern Catholicism, William Ashworth noted that, in general, religions are not "novelty-seeking" institutions, and that they are all resistant to ideas that challenge their dogmas. He nevertheless maintained that the early modern Catholic Church's reaction to science was exceptional, because it was "uniquely equipped to censor and repress such ideas and even to punish their advocates." To illustrate his argument, he articulated several ideas that were consistent with the narrative of the Italian liberal tradition. First, he noted that through the establishment of the Inquisition and the Index of Forbidden Books—developments that he erroneously attributed to the Council of Trent—the Catholic Church created a formidable "machinery of ideological repression." Like Firpo, he not only suggested that the construction of this machinery was a direct consequence of the Counter-Reformation, but that its application to the scrutiny of science constituted an unintended, and indeed, unwarranted extension of theological oversight (Ashworth 1986, 148–50).

If Ashworth's account of science had overtones of the Italian liberal story, William Shea's discussion of the context for the Galileo affair borrowed directly from Firpo's writings. Using an unattributed quotation from an English translation of a chapter from one of Firpo's books, Shea argued that the Counter-Reformation represented a "crisis of confidence that took place within the Italian mind" (cf. Firpo 1970a, 151; Shea 1986, 114). Once again providing an unattributed quote from a translation of one of Firpo's essays on the censorship of philosophy, Shea endorsed the latter's belief that the Church had emerged strengthened from its encounter with

Protestantism and turned its machinery of suppression onto new targets. In this article, Firpo had highlighted the repression of Italian philosophy. Shea, however, deployed these arguments to suggest that the Church had created a climate in which the potential for the development of science was radically diminished, a situation that provided the context for Galileo's future encounters with the Church (cf. Firpo 1970b, 269; Shea 1986, 117).

Ashworth and Shea may have been involved in a project that sought to revise Anglophone narratives of a necessary conflict between science and religion. Yet when they came to conceptualize the broader context for the interaction of science and religion in early modern Italy, Shea certainly, though Ashworth only probably, owed a debt to an equally pervasive narrative developed by the authors of the Italian liberal historiographical tradition. Neither historian, however, acknowledged the specific context in which the scholars of the Italian liberal tradition developed their narratives, or the role that they played in their wider theories about the development of the Italian nation. Instead, they took them at face value, and invested them with explanatory power. I suggest that understanding the origins of these narratives enables us to reconsider the relations of science and religion historiographically as well as empirically.

The historiography of science and religion in early modern Italy has, in any case, developed significantly since the publication of *God and Nature*. Few specialist works treating early modern Italian science would now defend the argument that the Church prevented the development of science in Italy. This idea nevertheless remains an important point of reference in modern scholarship. For example, in their hugely important collection of documents from the archives of the Inquisition and the Index, Ugo Baldini and Leen Spruit use their research to critique the proposition that the Church suppressed science in Italy (Baldini and Spruit 2009, 69–91). Furthermore, as I have noted elsewhere, vestiges of the arguments developed within the liberal tradition remain within surveys of the history of science in early modern Italy (Tarrant 2014, 8–9). Gregory Hanlon, for example, has observed that there is still truth in the idea that the Church destroyed Italy's promising start in science (Hanlon 2000, 252). Other historians, such as John Henry, have offered a more nuanced picture of early modern Italian science. It is, however, notable that when discussing the relations between science and religion he invoked the canon of trials and condemnations established by scholars such as Spaventa and Firpo (Henry 2010, 39–41). Although these ideas are rooted in the Italian liberal historiographical tradition, we shall shortly see that other historians active within this tradition developed an alternative narrative about Italy's scientific culture in the seventeenth and eighteenth centuries.

FRANCESCO DE SANCTIS

Francesco de Sanctis was born in the town of Morra Irpina in the Campania region in 1817. He began his education with his uncle before studying at the school of Lorenzo Fazzini (1787–1837) and the Italian Language Institute founded by Marquis Basilio Puoti (1782–1847). In the late 1830s, he began to teach Italian literature, and became recognized in Neapolitan intellectual circles for the depth of his knowledge. At this time, de Sanctis was also associating with groups of progressive intellectuals, who were inspired by the writings of Giambattista Vico (1668–1744) and Hegel. De Sanctis subsequently became involved in the political upheaval of the late 1840s. Accused of being involved in the Revolutionary Movement of 1848, he was imprisoned for three years. Following his release, he moved to Turin where he remained in contact with other Neapolitans such as Bertrando Spaventa. He was subsequently appointed to teach Italian literature at the ETH Zurich 1856–1860. While there, he met the historian Jacob Burckhardt (1818–1897), who was yet to publish his classic study *The Civilization of the Renaissance in Italy*. He returned to Naples in 1860 to serve as education minister. Following the unification of Italy, he became a deputy of the Italian chamber, and served three times as education minister. In 1871, he was appointed professor of comparative literature at Naples University (Marinari and Muscetta 1991).

In 1870, de Sanctis published his *Storia della letteratura italiana* (*History of Italian Literature*). In this work, de Sanctis conceived of literature as a synthesis of form and content, and he maintained that the content expressed the consciousness of Italian society at any given moment. In this sense, the greatest literary works embodied and represented the ideals of each successive epoch of Italian history, and so an analysis of literature could provide a framework for interpreting the nation's social and political history. For de Sanctis, the consciousness that informed the literature of the Middle Ages—perhaps most clearly represented by the *Divine Comedy* of Dante Alighieri (1265–1321)—encouraged humans to turn away from the material world. At this time, he wrote, “the base of man and Nature was beyond man and Nature, in the other world. The moving forces of human lives were personified under the name of ‘universals,’ and had a separate existence.” Contemporaries, he wrote, also believed that history was driven by providence (de Sanctis [1870] 1930, 465). During the course of the fourteenth century, de Sanctis continued, authors such as Giovanni Boccaccio (1313–75) gradually broke down the synthesis of the Middle Ages, by undermining literature's content. Although these developments cast doubt on the ideals of the medieval period, literature continued to evolve. The fifteenth century witnessed the emergence of the Renaissance, which not only stimulated efforts to recover the literary and artistic patrimony of antiquity, but also a new national cultural movement.

According to de Sanctis, the recovery of Latin literature offered Renaissance Italians new literary models to emulate, that is, new forms of expression, but he maintained that their original compositions remained devoid of content. This situation was not, he stressed, caused by Renaissance Italians' enthusiasm for antiquity, but by the emptiness of their souls (de Sanctis [1870] 1930, 370–74).

The fifteenth century witnessed the destruction of the old content of Italian literature, but by its end, the national intellect had begun to shape a new one. At this time, de Sanctis argued, Italian consciousness was building a new inner world and creating a new faith, one that “was no longer religious, but scientific (*scientifica*),¹ no longer based on the supernatural and superhuman, but rooted in man and nature” ([1870] 1930, 460). Illustrating his point, de Sanctis invoked the work of the Aristotelian philosopher Pietro Pomponazzi (1462–1525). Through his rejection of universals, his denial of miracles, and refutation of the mortality of the individual soul, Pomponazzi “directed science (*scienza*) to the study of Man and nature” (de Sanctis [1870] 1930, 460). This materialist approach, he continued, formed the basis for educated Italians' understanding of the world around them, and shaped their response to the Lutheran Reformation. For educated Italians, Luther's reforms could do no more than replace one theology with another. Had Italians championed the Reformation, it would have served only to recall them to the mindset of the Middle Ages. They held such a development to be intolerable, for, as de Sanctis noted, “Italy was beyond the age of theology, had already passed through it, and believed in science (*scienza*) and nothing else; it probably looked on Luther and Calvin as new scholastics” ([1870] 1930, 463).

In the foregoing passage, de Sanctis was engaging with Hegel's conception of the world historical significance of the Reformation, and Luther's role as a prophet of modernity. Although the Reformation was a religious movement, de Sanctis conceived the Renaissance to be innately materialist and scientific. The new civilization of Italy, was, he maintained, “a reaction against asceticism, symbolism, scholasticism—against everything that is known as the Middle Ages” (de Sanctis [1870] 1930, 464). This movement encouraged Italians to examine humans and nature in themselves, and to study human society. In these circumstances, it was highly unlikely that Italians would turn to a theologian in order to build its new national consciousness. Consequently, de Sanctis maintained that “The Luther of Italy was Niccolò Machiavelli” ([1870] 1930, 463). In this context, de Sanctis was not comparing the men as religious leaders, but as harbingers of modernity. He believed that Machiavelli (1469–1527) better fulfilled this role for Italians. He exemplified the ideals of the Renaissance, and encouraged his compatriots to examine all things by observation and experience. In works such as *The Prince* and the *Discourses on Livy*, he had produced a science of humanity: studying what is, rather than what ought to be.

According to de Sanctis: "It was a conception infinitely more revolutionary than the return to pure spirit of the Reformation. And its fruit was modern science (*scienza moderna*)." Although Machiavelli only applied his ideas to create a science of man, his conception would later produce "Galileo, and all the illustrious cohort of the naturalists" (de Sanctis[1870] 1930, 464–65).

Yet how and why did this transformation take place? Why did Machiavelli's science of man morph into a science of nature? De Sanctis provided his answer in a chapter entitled "The New Science (*La nuova scienza*)." In this chapter, he maintained that in the earlier sixteenth century Italians had enjoyed intellectual liberty, which led them to reject the authority of both philosophers and theologians. In these circumstances, Italian philosophers could instead rely on reason and observation. The creation of the natural sciences remained far from inevitable, however. Indeed, de Sanctis continued, "If the movement in Italy had been allowed to develop unhindered it would have stayed within the limits of the social and political questions." Had this occurred, "Italians perhaps would have gained that *patria* that [Machiavelli] dreamed of, and a civil education of soul and body, and a national Church with a religion purged of the absurd and grotesque part of it that renders it contemptible to men of culture" ([1870] 1930, 715). Yet Machiavelli's dream was never realized. From the late fifteenth century, Italy was subject to a series of foreign invasions from France, the Holy Roman Empire, and Spain. As a result, the peninsula's inhabitants lost not only their political independence but also all liberty of thought. The situation worsened following Luther's protest. The governors of Italy, fearful of the Reformation, launched a fierce repression. The Council of Trent and the Inquisition repressed heretics and philosophers alike. Worse still, the Jesuits wrested control of education. The persecution of the nation's intellectuals and philosophers forced its finest minds into exile, while those who remained chose to present a public face of conformity and did not dare to dispute (de Sanctis [1870] 1930, 712–15).

The onset of the Counter-Reformation struck a severe blow to Italian intellectual life. Yet according to de Sanctis, neither the Inquisition nor the Jesuits could entirely prevent the development of the deep-seated movement that had begun during the Renaissance. They were, however, "able to delay it considerably, so that more than a century was needed for it to gain a social importance." Even during this period of arrested national development, de Sanctis suggested, there continued to exist an opposition to the new settlement, one which could be glimpsed wherever there was a flicker of intellect within the nation's literature. Specifically, he claimed that it could be found in the work of those whom he referred to as "those 'new men' of Bacon, those first saints of the modern world, the men who carried in their breasts a new Italy and a new literature." Among these "new men," he included such figures as Bruno, Campanella, Telesio, Galileo, and Paolo

Sarpi (1552–1623) (de Sanctis [1870] 1930, 717–18). De Sanctis did not fully develop his suggestion that the suppression of thought had encouraged Italian intellectuals to redirect Machiavelli's legacy by applying his "scientific" approach to the natural world. It seems, however, that he considered natural science to be a product of the Italian mind, yet, ironically, its emergence was encouraged by the Church's attempts to suppress free thought. In this reading, Counter-Reformation-era Catholicism helped to create the conditions in which modern science was born.

If de Sanctis believed that the natural sciences kept Italian consciousness alive, he did not deny that those who practiced them did so in a difficult and dangerous environment. In an aside, he remarked that to the Church and Spain "the book of Nature was forbidden literature; whoever dared to read in that book was a heretic and an atheist" (de Sanctis [1870] 1930, 750). He also underlined the cruel fate that befell Bruno, and the suffering that Campanella and Galileo endured. Indeed, he erroneously lamented the fact that Galileo had been tortured. Despite the Church's actions, he maintained that there remained a viable community of individuals within Italy, which would continue to develop the gifts of the Renaissance. "Machiavelli, Bruno, Campanella, Galileo, and Sarpi, were not solitary figures; they were the result of the new times. These men were the greater planets, but all around them were hosts of other free men, inspired by the same spirit" (de Sanctis [1870] 1930, 773). Expanding his point, he commented that Galileo's disciples included such important figures as Benedetto Castelli (1578–1643), Bonaventura Cavalieri (1598–1647), Evangelista Torricelli (1608–1647), Giovanni Alfonso Borelli (1608–1679), and Vincenzo Viviani (1622–1703). Indeed, de Sanctis maintained that Italy in fact took a lead in "positive science (*scienze positive*)." To support his argument, he claimed that while resident in Italy Nicholas Copernicus (1473–1543), had established the movement of the Earth, and William Harvey (1578–1657) the circulation of the blood. Meanwhile, Francesco Redi (1626–1697) and other members of the Accademia del Cimento, with its motto *probando e reprobando* (testing and retesting) pioneered experimentalism (de Sanctis [1870] 1930, 753). According to de Sanctis, the Italian spirit only persisted in these localized ways until the end of the seventeenth century, when it began to be revived by individuals such as Giambattista Vico and Pietro Giannone (1676–1748). The age of Italian revival—the *Risorgimento*—had begun.

BENEDETTO CROCE

Benedetto Croce was born in Pescasseroli in 1866. He was the nephew of the Spaventa brothers. Following the death of his parents in an earthquake in 1883, he came to live in Rome with Silvio, who became his tutor. Croce briefly attended university in Rome. After enrolling in the faculty

of jurisprudence, he also began to attend lectures in moral philosophy given by Antonio Labriola (1843–1904), whom he knew through his uncle. In 1886, he left the university without taking a degree and returned to live in Naples. It was during this period that Croce began to engage more deeply in contemporary political and intellectual life (Patrizi 1985). Skeptical of recent trends in philosophy, especially the growth of interest in positivism, he sought to revive the idealist tradition. He shared the earlier Neapolitan Hegelians' belief that Italy's national history could be best interpreted through an exposition of national consciousness as expressed through intellectual productions. He took as his model de Sanctis's work rather than that of his uncles, however (Rubini 2014, 89). Alongside Giovanni Gentile (1875–1944), Croce established himself as one of the most important intellectuals in early twentieth-century Italy. Croce and Gentile's association was broken by the rise of Mussolini during the 1920s. Each man nevertheless continued to exert a significant influence over Italian intellectual life and over younger scholars such as Delio Cantimori (1904–1966) and Giuseppe Saitta (1881–1965), who in turn educated a subsequent generation including such luminaries as Carlo Ginzburg (1939–) and Adriano Prosperi (1939–).

In 1903, Croce established the journal *La critica* in which he published a series of essays including a number dealing with the history of seventeenth-century Italy. In 1929, Croce published a selection of these essays, with an additional introduction, as *Storia dell'età barocca in Italia*. In common with many of the earlier liberal histories of Italy, his work emphasized the significance of the Italian Renaissance in the development of modernity. He also maintained that following this great era Italy entered into a period of decadence, which he referred to as the "Age of the Baroque." At this stage, Croce's account began to differ from earlier renditions of Italian history in two fundamental ways. First, Croce entirely rejected the idea that Italy's decadence was caused by any forces external to Italian minds, whether the pernicious effects of foreign occupation or the detrimental impact of the Inquisition or the Jesuits. For Croce, such explanations—which involved explaining one fact by reference to another—were devoid of any explanatory value. Historical developments could only be interpreted by understanding the development of spirit. Second, and following de Sanctis, Croce believed that even during the Age of the Baroque, spirit was never entirely suffocated within Italy. If one looked closely, it was possible to discern glimpses of spirit in action throughout this age of decadence, and that these activities provided a direct link between the Renaissance and the Risorgimento. Crucially for our purposes, Croce regarded the natural sciences as one of those few domains where spirit continued to develop (Croce [1929] 1993).

In the introduction to *Storia dell'età barocca*, Croce laid the foundations for his analysis by discussing the meaning and significance of two key

terms, which referred to “two great spiritual movements”: Renaissance and Reformation. He remarked that although both movements were principally Italian, the categories that he used to refer to them were derived from foreign historiography. Principally, they had been developed by German-speaking scholars, who were, he noted, “better trained, that is trained by a better philosophy” to recognize the true significance of the Renaissance and the later Reformation. Croce considered two works, *The Civilization of the Italian Renaissance* by Jacob Burckhardt and the *History of the Popes* (1834–1836) by Leopold von Ranke (1795–1886), to have played especially significant roles in developing these historiographical insights. Croce noted that debates over the relative significance of the Reformation and Renaissance continued among German-speaking scholars in his own age. One group maintained “the traditional thesis of German historiography,” and continued to argue that modernity began with Luther’s Reformation. Others, following the lead of Friedrich Nietzsche (1844–1900), traced the motive forces of the modern age to the Renaissance. They saw the Reformation as little more than a reactionary and retrograde movement, which in turn forced the Catholic Church to protect itself with the Counter-Reformation. Others still, he concluded, attempted to unify the two movements. They either pointed to the manner in which the Reformation applied the Renaissance principle of individuality to the religious field, or to the fact that both movements encouraged a return to original sources, those of pagan antiquity and those of the Judeo-Christian tradition, respectively (Croce [1929] 1993, 19).

Croce situated his own analysis of the Renaissance and Reformation and their respective significance in the context of these debates. He rejected the idea that it was possible to draw a sharp divide between an Italian Renaissance and a German Reformation. For Croce, both movements were the expression of a single larger movement in history, each of which pointed toward modernity. In certain periods of their history, “the two peoples may have represented these tendencies in a particular guise and given an impulse and form to opposed movements.” This insight led him to reject the idea that either the Renaissance or the Reformation was the “property” of either nation, and specifically scorned Hegel’s assertion that the German people had a unique destiny that could be attributed to their “interiority.” He instead concluded that, although the Renaissance was indeed principally the work of the Italians and the Reformation that of the Germans, each movement “expresses the universal needs of the human spirit” (Croce [1929] 1993, 24–25).

Croce then proceeded to compare the Renaissance and Reformation with the Counter-Reformation. Although the former two movements “defended two opposed ideal attitudes”—that is, each in their own way served the needs of the human spirit—the Counter-Reformation “simply defended an institution, the Catholic Church, the Church of Rome”

(Croce [1929] 1993, 26). To achieve these ends, the Church did not seek to suppress but to utilize intellectual culture. Pursuing this agenda, the Counter-Reformation directed the minds and activities of artists and intellectuals to serve the mundane aim of protecting the institutional Church, rather than the higher ideal expressed in the great works of the Renaissance. This meant that although Italians continued to produce works of art and literature throughout the Age of the Baroque, the products of their labor no longer possessed any enduring value. This was the sense in which Croce understood the Counter-Reformation to have precipitated Italy's seventeenth-century decline. His position stood in stark contrast to earlier suggestions that it was caused by the Church's direct suppression of intellectual liberty, for instance by means of the Inquisition. Croce did accept, however, that the Church's actions delayed the advent of Italy's modernity. Moreover, he maintained that the Counter-Reformation could not have provided an alternative model for modernity. Since this movement did not serve a higher purpose, "it would be impossible to distinguish in the Counter-Reformation those perpetual needs of the heart and of the imagination, which informed the restoration of the nineteenth century" (Croce [1929] 1993, 26).

Although Croce accepted that the Counter-Reformation had delayed Italian modernity, he argued that Italians still had reason to be grateful toward the Catholic Church and the Jesuits for their actions during this period. Their most important contribution was to protect the nation against the disorder of the Reformation. Although this movement had encouraged individuals to develop new ideas, it proved to be a highly disruptive force. For instance, it provoked the Thirty Years War, and unleashed a wave of persecutions in France and England. Moreover, when the Reformation descended on Catholic lands, it did so wielding the same weapons as the Counter-Reformation Church. "With its inquisitions and stakes," the Protestant Churches waged persecutions against its adversaries that were equal to, or perhaps even worse than, those of the Catholic Church. For what reason, Croce asked, should the Catholic Church consider itself inferior to this? Besides, he claimed, the Church preserved much of the culture of the earlier period. Even if they were pressed into the service of the institutional Church, the literature, philology, logic, and even the Latin style of Catholic Italy remained superior to those of the Protestant nations. More importantly still, the Counter-Reformation preserved the essential unity of Italy, preventing, for example, the creation of a Protestant north and a Catholic south. In this manner, the Church and the Jesuits "sent Italy into the new age, entirely Catholic and, reacting to the clerical regime, disposed to make itself entirely enlightened, rationalist and liberal" (Croce [1929] 1993, 30).

Despite Italy's decadence and the ongoing disruptions caused by the Reformation, Croce regarded the seventeenth century as a period of significant

development in human history. Throughout this century “modern thought and sentiment and the religion of the new age grew irresistibly.” They were produced by the virtue of “new men” who could be found throughout Europe, but most often in those regions that were not under the sway of the Counter-Reformation. Although Italians rarely contributed to the intellectual ferment of the seventeenth century, the legacy of the Italian Renaissance continued to exert a profound influence on the development of modern ideas. Echoing Bertrando Spaventa’s thesis, Croce argued that a number of Italians, driven from their homeland by the Inquisition, carried with them into exile “their passion and the fruits of their cultured and serene intellect.” In their new homes, they combined elements of the Reformation and the Renaissance to produce “natural religion” and “reason.” In this manner, the Italian Renaissance influenced the development of the Enlightenment in northern Europe (Croce [1929] 1993, 34–35).

In the argument that he had developed in the introduction to the *Storia dell’età barocca*, Croce had concentrated on the negative impacts of the Counter-Reformation and the continued influence of Italian thought within Northern Europe. He now turned to consider the extent to which the spirit that had animated the Renaissance still survived within Italy during the Age of the Baroque. The first full chapter dealt with the history of the physical sciences (*scienze fisiche*). It opened with the observation that most general histories of Italian philosophy conclude “with the last great figures of the philosophy of the Renaissance, Telesio, Bruno, Campanella.” He conceded that in the years that followed their deaths, Italy did not produce a philosopher of their stature and that “the movement that they started ended here, and was continued elsewhere.” It was, however, difficult for a nation that had ascended to the level of thought and criticism of the Italians simply to stop exercising these faculties (Croce [1929] 1993, 81). Developing this point, he argued that speculative philosophy’s “spirit of investigation and criticism” was in fact reborn in other activities such as the physical sciences (Croce [1929] 1993, 84–85).

Croce noted that he was not the only person to have suggested that at least some Italians continued to manifest their genius in the physical sciences. The great name of Galileo, he wrote, is often invoked “like an oasis in the mental desert of *seicento* Italy.” Croce, however, sought to argue that while Galileo’s contribution may have been unparalleled, the sciences were widely practiced and that collectively they contributed to the development of spirit in Italy. Defining the nature of the sciences’ contribution, he observed that “without doubt, the physical and natural sciences (*le scienze fisiche e naturali*) are not philosophy, because they are empirical and mathematical constructions; but it is necessary not to forget that these constructions themselves are not without a philosophical conception or orientation, and for this reason they are not without a presupposed and implicit philosophy” (Croce [1929] 1993, 88). In

other words, although individuals such as Galileo were not practicing philosophy, their work was indirectly informed by philosophical concepts. For this reason, Galilean science represented a continuation of the critical thought that had been developed during the Renaissance. Croce also considered Galileo to be a philosopher because of the manner in which he articulated his philosophico-mathematical method, which sought not to describe why something was but simply how. For Croce, the development of this method represented a declaration of the autonomy of the positive sciences from the Aristotelianism of the schools (Croce [1929] 1993, 90).

Having established the nature of the sciences' contribution to the development of spirit, Croce set out to demonstrate how common they were in *seicento* Italy. He showed that, far from being an exception, Galileo in fact had predecessors, contemporaries, and successors, including a number of his own disciples. Croce declared that this was not, however, the place to become delayed describing "the cult of positive sciences (*culto delle scienze positive*) in Italy in the *seicento*" (Croce [1929] 1993, 92). It sufficed for him briefly to mention the contribution of academies such as the Cimento and the Lincei of Rome, to note the Medici's enthusiasm for research and experience, and to hail the "scientists (*scienziati*) and their discoveries." The latter group included such figures as Giambattista Della Porta (1535–1615), Fabio Colonna (1567–1640), Torricelli, Viviani, Bellini, Redi, Lorenzo Magalotti (1637–1712), and Borelli. Like de Sanctis then, Croce recognized that the natural sciences were in fact widely practiced within seventeenth-century Italy, although, he implied, their work did not reach the same level of attainment as the work of earlier pure philosophers such as Campanella or Bruno. Their zeal for investigation nevertheless spread widely, even influencing the Jesuit Order who made themselves experts in this field. Galilean methodology also continued to be influential, and it found important exponents in figures such as Torricelli. Croce concluded that "although the philosophical culture of Italy remained recondite and antiquated, the method of the sciences (*scienze*) was a new force that, in more propitious times that were not far off, would join itself to other new forces to regenerate the Italian spirit" (Croce [1929] 1993, 100). As for de Sanctis, so too for Croce these later developments could be seen in the work of Vico and Giannone. Their ideas marked the beginning of Italy's *Risorgimento*, the process that would lead to the construction of a modern unified state.

CONCLUSION

The idea that the Counter-Reformation caused Italian science to decline in the seventeenth century has proved enduring. Without doubt, the Anglophone tradition of conceiving the relations between science and religion as one of conflict has influenced the ongoing perception that the Catholic

Church was generally opposed to science. This belief was powerfully expressed in the works of Draper and Dickson White. There is, however, an equally pervasive story about Italian science that suggests that, after a promising start, it was suppressed. In this article, I have argued that this narrative originated in an Italian tradition of thought. Scholars of the Italian liberal historiographical tradition made important claims about the relationship between the Catholic Church and intellectual life. Their accounts posited a radical break in Italian intellectual life from the late sixteenth century, which included the decline of philosophical and, perhaps, scientific thought. Their narratives were, however, the product of a specific intellectual and political culture, which aimed to use histories of intellectual life to explain the often-difficult establishment of a politically and culturally unified Italian nation. As such, their contents, though rich and engaging, need to be read with due awareness of the context in which they were produced, and the ends that they were intended to serve. I suggest, however, that certain Anglophone historians have selectively extracted the arguments and evidence adduced in this tradition, and without referring to their context, used them to formulate frameworks to analyze the history of Italian science.

In the latter half of this article, I have examined the work of two scholars who offered an alternative reading of Italian intellectual history. De Sanctis and Croce both endorsed the belief that Italy entered into a period of decline during the seventeenth century. Their arguments differed from those of the other scholars of the Italian liberal tradition, because they did not posit a total break in intellectual life. They instead argued that throughout the seventeenth century Italians maintained their capacity for critical thought in limited fields of human activity, and that these activities provided essential continuity between the thought of the Renaissance and the Risorgimento. Importantly for our purposes, one of the fields in which they believed that Italian thought endured was the natural sciences. By pointing to the development of the experimental sciences, the vitality of the academies, the work of a range of individuals who were active both prior to and following Galileo's trial, and—in Croce's case—by recognizing the Jesuits' scientific activity, de Sanctis and Croce's work preempted many recent innovations in the historiography of seventeenth-century Italian science. The apparent concordance between de Sanctis and Croce's work and the finding of modern historiography does not mean that we should necessarily take their work and its conclusions at face value, however. No less than the work of Spaventa and Firpo, it is essential to read their histories with due attention to the context of their production. It is, nevertheless, tempting to wonder how the historiography of Italian science might have developed if their work had provided the model for subsequent research.

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NOTES

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1. I have supplied the original Italian for “science” and its cognates throughout the remainder of this article, to illustrate how de Sanctis and Croce use these specific terms. The original Italian is taken from de Sanctis ([1870] 1925).

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